Nebraska Public Power District

GENERAL OFFICE
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NLS8800435

August 31, 1988

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Semiannual Radioactive Material Release Report
Cooper Nuclear Station
NRC Docket No. 50-298, DPR-46

Gentlemen:

In accordance with Specification 6.5.1.F of the Cooper Nuclear Station Technical Specifications, Nebraska Public Power District submits the Cooper Nuclear Station Semiannual Radioactive Material Release Report for the period January 1, 1988, through June 30, 1988.

In accordance with 10 CFR 50.4(b)(1), we are enclosing one signed original of the report for your use, one copy to the Regional Office, and one copy to the NRC Resident Inspector.

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

Sincerely,

G. A. Trevors
Division Manager
Nuclear Support

JMS:dg
Enclosure

cc: U.S. Nuclear Regulatory Commission
Regional Office - Region IV

NRC Resident Inspector
Cooper Nuclear Station

NEBRASKA PUBLIC POWER DISTICT

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

January 1, 1988 through June 30, 1988

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

SEMIANNUAL OPERATING REPORT

RADIOACTIVE EFFLUENTS

January 1, 1988, through June 30, 1988

USNRC Docket 50-298

Contents

INTRODUCTION

This report summarizes meteorological data and doses from radioactive effluents for the Cooper Nuclear Station for the period January through June 1988. The data presented meet the reporting requirements of Regulatory Guide 1.21 of the U.S. Nuclear Regulatory Commission (Revision 1, June 1974).

The report is organized into three parts. Appendix A presents the effluent and waste disposal source term data. Appendix B presents a summary of onsite meteorological data for the report period, including atmospheric diffusion estimates and a description of the atmospheric diffusion model. Appendix C presents the doses from liquid and gaseous radioactive effluents. Also included in Appendix C are isopleths for atmospheric diffusion estimates and doses, and a description of the dose calculation models.

APPENDIX A

SOURCE TERMS

EFFLUENT AND WASTE DISPOSAL REPORTS

EFFLUENT AND WASTE DISPOSAL

January - June, 1988

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&B of Regulatory Guide 1.21 is included in the Meteorological Section of the Semiannual Radioactive Material Release Report - Radioactive Effluents.

Facility Cooper Nuclear Station License DPR-46

A. Regulatory Limits

1. Gaseous waste effluents

a. The dose rates due to radioactive materials released in gaseous effluents offsite shall be limited to the following:

1. Noble Gases: Less than or equal to 500 mrem/yr to the total body and less than or equal to 3000 mrem/yr to the skin.

2. I-131, I-133, tritium, and all radionuclides in particulate form with half-lives greater than or equal to 8 days: Less than or equal to 1500 mrem/yr to any organ.

b. The air dose due to noble gases released in gaseous effluents offsite shall be limited to the following:

1. During any calendar quarter: Less than or equal to 5 mrad from gamma radiation and less than or equal to 10 mrad from beta radiation.

2. During any calendar year: Less than or equal to 10 mrad from gamma radiation and less than or equal to 20 mrad from beta radiation.

c. The dose to a member of the public due to I-131, I-133, and radioactive materials in particulate form with half-lives greater than 8 days in gaseous effluents offsite shall be limited to the following:

1. During any calendar quarter: Less than or equal to 7.5 mrem to any organ.

2. During any calendar year: Less than or equal to 15 mrem to any organ.

2. Liquid waste effluents

a. The concentration of radioactive material in water offsite due to radioactive liquid effluents shall not exceed the concentration specified in 10 CFR Part 20.106 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall not exceed 2×10^{-4} μCi/ml total activity.

b. The dose to a member of the public due to radioactive material in liquid effluents offsite shall be limited to the following:

1. During any calendar quarter: Less than or equal to 1.5 mrem to the total body and less than or equal to 5 mrem to any organ.

2. During any calendar year: Less than or equal to 3 mrem to the total body and less than or equal to 10 mrem to any organ.

B. Maximum Permissible Concentrations

1. Water - Covered in Section A.2.

2. Air - Covered in Section A.1.

C. Average Energy

The average energy ($\overline{E}$) of the radionuclide mixtures of fission and activation gases released is not applicable. This information is not utilized for dose or release calculations.

D. 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:

1. Gaseous effluents

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 beta scintillation 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.

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. An aliquot of a filter composite from each release point is analyzed for Sr-89, Sr-90 by chemical separation and gas flow proportional counting. An aliquot of each composite is also analyzed for gross alpha by gas flow proportional counting.

d. Tritium:

A portable sampling apparatus is utilized to collect a quarterly sample of each radioactive vent effluent. These samples are analyzed using a liquid scintillation counter.

2. Liquid effluents

a. Principal gamma emitters and dissolved and entrained gases:

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

b. Tritium:

An aliquot of a monthly composite is analyzed using a liquid scintillation counter.

c. Sr-89 and Sr-90:

An aliquot from a quarterly composite is analyzed by chemical separation and gas flow proportional counting.

d. Gross alpha:

An aliquot from a monthly composite is analyzed by gas flow proportional counting.

e. Fe-55:

An aliquot from a quarterly composite is analyzed by an offsite laboratory.

E. Batch Releases

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

a. Liquid
   1. Number of batch releases: 90
   2. Total time period for batch releases: 2.51 E+04 minutes

3. Maximum time period for batch release: 5.25 E+02 minutes
4. Average time period for batch releases: 2.78 E+02 minutes
5. Minimum time period for a batch release: 1.50 E+02 minutes
6. Average stream flow during periods of release of effluent into a flowing stream: 5.76 E+07 liters/minute

b. Gaseous

1. Number of batch releases: None
2. Total time period for batch releases: 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

F. 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 1A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	1st Quarter	2nd Quarter	EST. TOTAL ERROR %
A. Fission and activation gases				
1. Total release	Ci	1.03 E+03	4.29 E+01	2.0 E+01
2. Average release rate for period	µCi/sec	1.31 E+02	5.46 E+00	
B. Iodines				
1. Total iodine 131	Ci	3.11 E-03	2.19 E-04	3.0 E+01
2. Average release rate for period	µCi/sec	3.96 E-04	2.79 E-05	
C. Particulates				
1. Particulates with half-lives >8 days	Ci	1.65 E-03	6.43 E-03	5.0 E+01
2. Average release rate for period	µCi/sec	2.10 E-04	8.18 E-04	
3. Gross alpha radioactivity	Ci	0.00 E+00	0.00 E+00	
D. Tritium				
1. Total release	Ci	0.00 E+00	0.00 E+00	3.0 E+01
2. Average release rate for period	µCi/sec	0.00 E+00	0.00 E+00	

TABLE 1B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

GASEOUS EFFLUENT-ELEVATED RELEASE

			CONTINUOUS MODE	*BATCH
	NUCLIDES RELEASED	UNIT	1st QUARTER	2nd QUARTER
1.	Fission gases.			
	krypton-83m	Ci	8.30 E+00	3.60 E-01
	krypton-85m	Ci	1.50 E+01	6.50 E-01
	krypton-85	Ci	4.60 E+01	2.00 E+00
	krypton-87	Ci	4.90 E+01	2.10 E+00
	krypton-88	Ci	4.90 E+01	2.10 E+00
	krypton-89	Ci	2.30 E+02	1.00 E+01
	xenon-133m	Ci	6.90 E-01	3.00 E-02
	xenon-133	Ci	3.50 E+01	1.50 E+00
	xenon-135m	Ci	1.70 E+01	7.20 E-01
	xenon-135	Ci	6.10 E+01	2.60 E+00
	xenon-137	Ci	2.80 E+02	1.20 E+01
	xenon-138	Ci	2.00 E+02	8.80 E+00
	Total for period	Ci	9.91 E+02	4.29 E+01
2.	Iodines.			
	iodine-131	Ci	1.72 E-03	1.90 E-04
	iodine-132	Ci	0.00 E+00	8.16 E-05
	iodine-133	Ci	0.00 E+00	1.06 E-03
	iodine-135	Ci	0.00 E+00	9.97 E-04
	Total for period	Ci	1.72 E-03	2.33 E-03
3.	Particulates.			
	rubidium-89	Ci	5.38 E-06	0.00 E+00
	cesium-138	Ci	[illegible] E-04	6.30 E-03
	barium-139	Ci	6.82 E-05	8.87 E-05
	rubidium-88	Ci	8.00 E-04	0.00 E+00
	tellurium-132	Ci	0.00 E+00	4.08 E-05
Total for period		Ci	1.65 E-03	6.43 E-03

*No batch discharges were made.

TABLE 1C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

GASEOUS EFFLUENT-BUILDING VENT RELEASES

	NUCLIDES RELEASED	UNIT	1st QUARTER	2nd QUARTER
1.	Fission gases.			
	krypton-85m	Ci	4.90 E-01	0.00 E+00
	krypton-87	Ci	9.20 E-01	0.00 E+00
	krypton-88	Ci	1.61 E+00	0.00 E+00
	xenon-133	Ci	1.81 E+01	0.00 E+00
	xenon-135m	Ci	4.80 E+00	0.00 E+00
	xenon-135	Ci	7.30 E+00	0.00 E+00
	xenon-138	Ci	9.70 E+00	0.00 E+00
	Total for period	Ci	4.29 E+01	0.00 E+00
2.	Iodines.			
	iodine-131	Ci	1.39 E-03	2.89 E-05
	iodine-133	Ci	0.00 E+00	1.07 E-05
	Total for period	Ci	1.39 E-03	3.96 E-05
3.	Particulates.			
	Total for period	Ci	0.00 E+00	0.00 E+00

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	UNIT	1st QUARTER	2nd QUARTER	EST. TOTAL ERROR %
A. Fission and activation products.				
1. Total release (not including tritium, gases, alpha)	Ci	5.97 E-01	1.28 E+00	2.0 E+01
2. Average diluted concentration during period	µCi/ml	3.94 E-08	1.35 E-07	
B. Tritium.				
1. Total release	Ci	9.42 E-01	1.71 E+00	2.0 E+01
2. Average diluted concentration during period	µCi/ml	6.24 E-08	1.81 E-07	
C. Dissolved and entrained gases.				
1. Total release	Ci	2.68 E-03	0.00 E+00	5.0 E+01
2. Average diluted concentration during period	µCi/ml	1.77 E-10	0.00 E+00	
D. Gross alpha radioactivity.				
1. Total release	Ci	3.76 E-04	1.17 E-03	5.0 E+01
E. Volume of waste released (prior to dilution).	liters	2.82 E+06	3.25 E+06	1.0 E+01
F. Volume of dilution water used during period.	liters	1.51 E+10	9.46 E+09	1.0 E+01

TABLE 2B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

LIQUID EFFLUENTS

		CONTINUOUS MODE*	BATCH MODE
NUCLIDES RELEASED	UNIT	1st QUARTER	2nd QUARTER
cesium-136	Ci	2.00 E-04	0.00 E+00
iodine-133	Ci	3.37 E-03	0.00 E+00
sodium-24	Ci	1.59 E-02	0.00 E+00
chromium-51	Ci	1.29 E-01	1.59 E-03
manganese-54	Ci	7.03 E-02	1.64 E-01
iron-59	Ci	4.18 E-03	1.44 E-02
cobalt-58	Ci	3.55 E-02	4.73 E-02
cobalt-60	Ci	1.53 E-01	7.58 E-01
strontium-89	Ci	2.12 E-02	9.52 E-03
strontium-90	Ci	3.11 E-04	2.11 E-04
technetium-99m	Ci	1.18 E-02	0.00 E+00
silver-110m	Ci	4.63 E-04	9.41 E-03
antimony-125	Ci	1.72 E-03	0.00 E+00
iodine-131	Ci	6.76 E-02	8.35 E-04
cesium-134	Ci	2.87 E-02	1.07 E-01
cesium-137	Ci	5.31 E-02	1.65 E-01
molybdenum-99	Ci	4.76 E-04	0.00 E+00
Total for period above	Ci	5.97 E-01	1.28 E+00
xenon-133	Ci	2.61 E-03	0.00 E+00
xenon-135	Ci	7.09 E-05	0.00 E+00

*No continuous mode discharges made

TABLE 3

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

PERIOD January 1, 1988 TO June 30, 1988

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

1. Type of Waste	UNIT	6-MONTH PERIOD	EST. TOTAL ERROR %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m^3	5.36 E+01	
	Ci	4.92 E+01	15%
b. Dry compressible waste, contaminated equip, etc.	m^3	1.09 E+02	
	Ci	8.78 E-01	25%
c. Irradiated components, control rods, etc.	m^3		
	Ci		
d. Other.	m^3		
	Ci		

2. Estimate of Major Nuclide Composition (By Type of Waste), Percent %

a.

chromium-51	4.38 E+00
cobalt-60	3.79 E+01
cobalt-58	8.00 E-01
manganese-54	1.27 E+01
antimony-125	2.52 E-01
silver-110m	4.46 E-01
iodine-131	5.44 E-01
cesium-137	8.83 E+00
cesium-134	4.94 E+00
iron-55	2.71 E+01
barium-lanthanum-140	2.93 E-01
carbon-14	7.12 E-01
technetium-99	2.54 E-03
iodine-129	2.90 E-04
tritium	7.26 E-02
plutonium-241	1.96 E-02
curium-242	2.34 E-04
nickel-63	1.00 E+00
strontium-90	1.45 E-02

2. Estimate of Major Nuclide Composition (By Type of Waste), Percent % (continued)

b.

cobalt-60	4.39 E+01
cobalt-58	4.87 E-01
manganese-54	3.28 E+00
antimony-125	1.05 E+00
cesium-137	1.18 E+00
cesium-134	3.69 E-01
iron-55	4.33 E+01
carbon-14	2.33 E-02
technetium-99	9.86 E-04
tritium	6.37 E-02
plutonium-241	6.18 E-03
curium-242	1.83 E-04
nickel-63	6.37 E+00
strontium-90	9.33 E-04

3. Solid Waste Disposition

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
14	Exclusive Use Vehicle	Richland, WA
1	Exclusive Use Vehicle	Beatty, NV

4. Solidification Agent

All waste requiring solidification for burial was solidified with cement.

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	Rail	Morris, IL

GASEOUS RADIOACTIVE WASTES

CUMMULATIVE DOSE DATA

		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Annual
A. Maximum gamma air dose						
* site boundary(0.67 miles North)						
1. Total	mrad	4.92E-2	2.50E-3			
2. Percent of Technical Specification Limit	%	0.98	0.05			
Most Exposed Resident (0.9 miles Northwest)						
1. Total	mrad	2.55E-2	8.72E-4			
2. Percent of Technical Specification Limit	%	0.51	0.02			
B. Maximum beta air dose						
* site boundary(0.67 miles North)						
1. Total	mrad	3.99E-2	2.55E-3			
2. Percent of Technical Specification Limit	%	0.40	0.03			
Most Exposed Resident (0.9 miles Northwest)						
1. Total	mrad	2.32E-2	8.10E-4			
2. Percent of Technical Specification Limit	%	0.23	0.01			
C. Maximum organ dose due to I-131, I-133, and particulates (>8 day half lives)						
* site boundary(0.67 miles North)						
1. Total	mrem	7.09E-1	6.76E-2			
2. Percent of Technical Specification Limit	%	9.45	0.90			
3. Organ		Thyroid	Thyroid			
4. Exposed Individual		Infant	Infant			
Most Exposed Resident (0.9 miles Northwest)						
1. Total	mrem	2.22E-1	1.48E-2			
2. Percent of Technical Specification Limit	%	2.96	0.20			
3. Organ		Thyroid	Thyroid			
4. Exposed Individual		Infant	Infant			

D. Maximum organ dose rate due to I-131, I-133, tritium, and particulates (> 8 day half-lives) was 7.09 E-01 mrem/quarter which was 9.45 % of the Technical Specification Limit.

E. All radioactive noble gas effluent monitors were set to automatically alarm when the monitor alarm setpoint, determined as specified in the Offsite Dose Assessment Manual (ODAM), was exceeded. This is required to ensure that the limits to the total body (500 mrem/yr) and the limits to the skin (3000 mrem/yr) are not exceeded.

LIQUID RADIOACTIVE WASTES

CUMMULATIVE DOSE DATA

		1st Qtr	2nd Qrt
A. Maximum whole body dose			
1. Total	mrem	1.14E-2	8.21E-2
2. Percent of Technical Specification Limit	%	0.76	5.47
B. Maximum organ dose			
1. Total	mrem	1.53E-1	1.06E-1
2. Percent of Technical Specification Limit	%	3.06	2.12

C. All radioactive liquid effluents were diluted, at time of discharge, to concentrations below the concentrations specified in 10 CFR Part 20.106 for radionuclides other than dissolved and entrained noble gases. For dissolved and entrained noble gases the concentrations were diluted below 2.00 E-04 uCi/ml total activity.

SUPPLEMENTAL INFORMATION

A. Unplanned Releases:

None

B. Changes to the Process Control Program:

None

C. Changes to the Offsite Dose Assessment Manual:

None

APPENDIX B

METEOROLOGY

CONTENTS

METEOROLOGICAL DATA SUMMARIES

Meteorological data collected onsite for the period July 1, 1988, through December 31, 1988, were reduced, validated, summarized for analysis, and included in appropriate dose calculations. Hourly data summaries are provided for all pertinent parameters and for the joint frequency distributions (JFDs) of wind speed and wind direction by atmospheric stability class.

DATA RECOVERY: Data recovery statistics are provided in Table 1 for all pertinent meteorological parameters.

January 1 - March 31, 1988 (Q1)	≥ 94%
April 1 - June 30, 1988 (Q2)	≥ 94%
First Semiannual Period - January 1 - June 30, 1988 (SEM1)1	≥ 94%

WIND AT 100-METER LEVEL AND 10-METER LEVEL

	Predominant Wind Direction at 100m Level		Predominant Wind Direction at 10m Level	
Q1	Northwest	15.2%	Northwest	13.6%
Q2	South	22.3%	South	20.7%
SEM1	South	15.7%	South	16.2%

	Mean Wind Speed at 100m Level	Mean Wind Speed at 10m Level
Q1	14.8 MPH	9.4 MPH
Q2	14.6 MPH	8.7 MPH
SEM1	14.7 MPH	9.1 MPH

	Maximum Hourly Average Wind Speed/(Date) at 100m Level	Maximum Hourly Average Wind Speed/(Date) at 10m Level
Q1	40.3 MPH/(88/2/14)	30.3 MPH/(88/3/27)
Q2	34.7 MPH/(88/4/5)	27.3 MPH/(88/4/26)
SEM1	40.3 MPH/(88/2/14)	30.3 MPH/(88/3/27)

TEMPERATURE AT 10-METER LEVEL

	Mean Hourly Average Temperature	Average Daily Maximum	Average Daily Minimum
Q1	-1.2 Degrees Celsius	5.2 Degrees Celsius	-6.2 Degrees Celsius
Q2	19.2 Degrees Celsius	24.8 Degrees Celsius	13.1 Degrees Celsius
SEM1	9.0 Degrees Celsius	15.0 Degrees Celsius	3.5 Degrees Celsius

	Maximum Temperature Date	Minimum Temperature Date
Q1	27.6 degrees Celsius 88/3/22	-23.1 Degrees Celsius 88/2/11
Q2	38.4 degrees Celsius 88/6/25	-0.5 Degrees Celsius 88/4/16
SEM1	38.4 Degrees Celsius 88/6/25	-23.1 Degrees Celsius 88/2/11

PRECIPITATION

	Total Precipitation	Maximum Daily Precipitation Total/(Date)	Maximum Hourly Precipitation Total/(Date)
Q1	1.10 Inches	.70 Inch (88/3/3)	.60 Inch (88/3/3)
Q2	4.05 Inches	1.01 Inches (88/4/1)	.40 Inch (88/5/22)
SEM1	5.15 Inches	1.01 Inches (88/4/1)	.60 Inch (88/3/3)

ATMOSPHERIC STABILITY: Atmospheric stability is determined through classification of differential temperature data based on JFD of the 100-meter wind and the delta T (100m - 10m) stability data.

	Unstable Conditions Classes A-C	Neutral Conditions Class D	Stable Conditions Classes E-G
Q1	7%	48%	45%
Q2	22%	36%	42%
SEM1	14%	42%	44%

Table 1. Meteorological Data Recovery

	Data Recovery (% of total observations)		
	January-March 1988	April-June 1988	January-June 1988
100m wind speed	99.4	97.9	98.6
100m wind direction	99.4	97.9	98.6
100m ambient temperature	99.4	97.6	98.5
60m wind speed	99.4	97.9	98.6
60m wind direction	99.4	97.9	98.6
60m ambient temperature	99.4	97.6	98.5
10m wind speed	99.4	97.9	98.6
10m wind direction	99.4	97.9	98.6
10m ambient temperature	94.1	94.9	94.5
10m dew point	99.4	97.6	98.5
100m-10m delta T	94.1	94.9	94.5
100m-60m delta T	99.4	97.6	98.5
60m-10m delta T	94.1	94.9	94.5
Precipitation	100.0	100.0	100.0
100m JFD	94.1	94.9	94.5
10m JFD	94.1	94.9	94.5

JFD - Joint Frequency Distribution of wind speed, wind direction and atmospheric stability.

MONTHLY SUMMARY TABLES OF HOURLY METEORLOGICAL DATA

The tables presented in this section provide a summary of hourly averages of measured meteorological parameters. The tables provide summaries by month for the semiannual period January through June, 1988. Summaries for the first quarter, second quarter, and semiannual period are also provided. The parameters provided are listed below.

* 10 meter ambient temperature.
* Wind direction frequencies at 10 meters and 100 meters.
* Precipitation.

Any missing or non-measured data are indicated by a field of 9's.

10-Meter Ambient Temperature
and
10-Meter Dew Point Temperature

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1988

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/88 TO 3/31/88

JANUARY

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	31.	-6.1	31.	-9.7	31.	76.1	31.	2.8	31.	-7.1
2	31.	-6.3	31.	-9.7	31.	77.5	31.	2.8	31.	-7.3
3	31.	-6.6	31.	-9.8	31.	78.6	31.	2.7	31.	-7.4
4	31.	-6.9	31.	-9.8	31.	80.1	31.	2.7	31.	-7.7
5	31.	-7.1	31.	-9.9	31.	80.6	31.	2.7	31.	-7.8
6	31.	-7.2	31.	-10.0	31.	80.5	31.	2.7	31.	-7.9
7	31.	-7.1	31.	-10.1	31.	79.8	31.	2.7	31.	-7.9
8	30.	-7.5	31.	-10.2	30.	79.4	30.	2.6	30.	-8.3
9	30.	-7.4	31.	-10.2	30.	79.0	30.	2.6	30.	-8.2
10	30.	-6.3	31.	-9.8	30.	74.2	30.	2.7	30.	-7.3
11	31.	-4.5	31.	-9.5	31.	68.2	31.	2.8	31.	-5.9
12	31.	-3.0	31.	-9.2	31.	63.2	31.	2.9	31.	-4.8
13	31.	-1.9	31.	-8.8	31.	60.0	31.	3.0	31.	-4.0
14	31.	-1.0	31.	-8.5	31.	57.8	31.	3.0	31.	-3.4
15	30.	-0.9	31.	-8.4	30.	56.6	30.	3.0	30.	-3.4
16	29.	-1.0	31.	-8.3	29.	55.9	29.	2.9	29.	-3.5
17	29.	-0.8	30.	-7.9	29.	57.7	29.	3.0	29.	-3.2
18	30.	-2.1	31.	-8.4	30.	60.8	30.	2.9	30.	-4.2
19	29.	-3.1	31.	-8.5	29.	64.7	29.	2.9	29.	-4.8
20	29.	-3.7	31.	-8.7	29.	67.3	29.	2.9	29.	-5.3
21	30.	-4.5	31.	-9.0	30.	69.9	30.	2.8	30.	-5.8
22	30.	-5.1	31.	-9.4	30.	71.2	30.	2.8	30.	-6.3
23	30.	-5.5	31.	-9.5	30.	72.5	30.	2.7	30.	-6.7
24	31.	-5.7	31.	-9.6	31.	74.6	31.	2.9	31.	-6.8
HOURLY MEAN		-4.7		-9.3		70.4		2.8		-6.1
AVG DAILY MAX		1.0		-5.5		85.3		3.6		-1.5
AVG DAILY MIN		-9.4		-13.0		53.2		2.1		-10.2
ABSOLUTE MAX		15.2		7.4		100.0		7.8		10.7
ABSOLUTE MIN		-18.3		-24.9		35.1		0.7		-18.7
TOTAL OBS	728		743		728		728		728	

PROGRAM: WETTEMP
VERSION: 3F

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1988

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/88 TO 3/31/88

FEBRUARY

10.0 METERS LEVEL

	TEMPERATUPE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	27.	-5.2	28.	-10.2	27.	68.6	27.	2.5	27.	-6.8
2	28.	-5.1	29.	-10.1	28.	68.4	28.	2.5	28.	-6.7
3	28.	-5.5	29.	-10.0	28.	70.5	28.	2.5	28.	-6.9
4	28.	-5.8	29.	-10.2	28.	70.8	28.	2.5	28.	-7.1
5	28.	-5.9	29.	-10.3	28.	71.0	28.	2.5	28.	-7.3
6	29.	-6.1	29.	-10.2	29.	73.5	29.	2.5	29.	-7.3
7	29.	-6.5	29.	-10.3	29.	75.2	29.	2.5	29.	-7.6
8	29.	-6.7	29.	-10.4	29.	76.0	29.	2.5	29.	-7.8
9	28.	-6.4	29.	-10.4	28.	73.1	28.	2.5	28.	-7.7
10	28.	-5.5	29.	-10.3	28.	69.4	28.	2.5	28.	-7.0
11	25.	-4.5	28.	-9.4	25.	65.9	25.	2.5	25.	-6.2
12	26.	-2.7	28.	-9.1	26.	62.3	26.	2.7	26.	-4.8
13	26.	-1.5	28.	-9.0	26.	58.6	26.	2.7	26.	-4.0
14	27.	-1.0	29.	-9.1	27.	56.5	27.	2.7	27.	-3.7
15	27.	0.1	28.	-9.0	27.	53.3	27.	2.7	27.	-3.0
16	28.	0.6	29.	-8.7	28.	52.9	28.	2.8	28.	-2.6
17	26.	0.3	29.	-8.9	26.	52.0	26.	2.7	26.	-3.0
18	25.	-0.4	29.	-9.0	25.	54.0	25.	2.7	25.	-3.4
19	28.	-1.0	29.	-8.9	28.	56.5	28.	2.7	28.	-3.7
20	26.	-1.9	29.	-9.0	26.	58.4	26.	2.6	26.	-4.4
21	26.	-2.5	29.	-9.2	26.	61.1	26.	2.7	26.	-4.8
22	27.	-2.7	29.	-9.2	27.	62.5	27.	2.7	27.	-4.9
23	27.	-3.3	29.	-9.4	27.	63.8	27.	2.6	27.	-5.3
24	28.	-3.9	29.	-9.6	28.	65.6	28.	2.6	28.	-5.8
HOURLY MEAN		-3.5		-9.6		64.4		2.6		-5.5
AVG DAILY MAX		2.4		-5.7		80.8		3.4		-1.1
AVG DAILY MIN		-8.6		-13.7		47.7		1.9		-9.7
ABSOLUTE MAX		21.1		1.8		97.8		5.3		10.2
ABSOLUTE MIN		-23.1		-26.0		20.3		0.6		-23.4
TOTAL OBS	654		691		654		654		654	

PROGRAM: WETTEMP
VERSION: 3P

NPPD- .ER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1988

MONTH. . 6HOUR AVERAGES FOR THE PERIOD 1/ 1/88 TO 3/31/88

MARCH

10.. METERS LEVEL

HOUR	TEMPERATURE NUMBER OBS	TEMPERATURE (DEG C)	DEW POINT NUMBER OBS	DEW POINT (DEG C)	RELATIVE HUM NUMBER OBS	RELATIVE HUM (%)	ABSOLUTE HUM NUMBER OBS	ABSOLUTE HUM (GM/M3)	WET BULB NUMBER OBS	WET BULB (DEG C)
1	31.	3.3	31.	-4.4	31.	58.3	31.	3.7	31.	0.4
2	29.	3.0	31.	-4.4	29.	61.1	29.	3.7	29.	0.3
3	30.	1.8	31.	-4.5	30.	62.7	30.	3.6	30.	-0.6
4	30.	1.5	30.	-4.7	30.	64.9	30.	3.6	30.	-0.7
5	30.	1.1	31.	-4.6	30.	66.9	30.	3.7	30.	-1.0
6	30.	1.1	31.	-4.5	30.	68.9	30.	3.8	30.	-0.9
7	30.	0.4	30.	-4.7	30.	70.3	30.	3.7	30.	-1.4
8	31.	0.5	31.	-4.4	31.	71.0	31.	3.8	31.	-1.3
9	29.	1.7	30.	-3.8	29.	68.2	29.	4.0	29.	-0.4
10	29.	3.2	30.	-3.4	29.	63.5	29.	4.0	29.	0.6
11	27.	4.2	31.	-3.4	27.	56.8	27.	3.8	27.	1.0
12	25.	5.8	31.	-3.7	25.	49.4	25.	3.6	25.	1.8
13	26.	6.9	31.	-3.9	26.	44.0	26.	3.4	26.	2.1
14	2[illegible]	9.2	31.	-4.1	28.	40.5	28.	3.7	28.	3.6
15	..	10.2	30.	-4.2	27.	37.0	27.	3.5	27.	4.0
16	25.	10.9	30.	-4.4	25.	36.3	25.	3.5	25.	4.5
17	25.	9.3	31.	-4.7	25.	37.8	25.	3.5	25.	3.6
18	23.	8.9	31.	-4.8	23.	36.2	23.	3.2	23.	3.1
19	24.	9.2	30.	-4.7	24.	37.8	24.	3.4	24.	3.5
20	29.	8.1	31.	-4.9	29.	39.8	29.	3.4	29.	2.9
21	28.	6.6	31.	-4.8	28.	43.0	28.	3.3	28.	2.0
22	28.	5.5	31.	-4.7	28.	47.5	28.	3.5	28.	1.5
23	30.	5.1	30.	-3.9	30.	53.5	30.	3.8	30.	1.6
24	29.	3.6	31.	-4.2	29.	56.9	29.	3.7	29.	0.6
HOURLY MEAN		4.8		-4.3		53.8		3.6		1.2
AVG DAILY MAX		12.0		-1.2		74.2		4.7		5.4
AVG DAILY MIN		-0.7		-7.4		32.6		2.9		-2.5
ABSOLUTE MAX		27.6		13.1		97.1		11.3		14.6
ABSOLUTE MIN		-10.6		-19.2		19.0		1.1		-11.5
TOTAL OBS	673		736		673		673		673	

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1988

HOUR AVERAGES FOR THE PERIOD 1/ 1/88 TO 3/31/88

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	89.	-2.6	90.	-8.1	89.	67.6	89.	3.0	89.	-4.4
2	88.	-2.9	91.	-8.0	88.	69.2	88.	3.0	88.	-4.6
3	89.	-3.4	91.	-8.1	89.	70.7	89.	3.0	89.	-5.0
4	89.	-3.7	90.	-8.2	89.	72.1	89.	3.0	89.	-5.2
5	89.	-4.0	91.	-8.2	89.	72.9	89.	3.0	89.	-5.4
6	90.	-4.1	91.	-8.2	90.	74.4	90.	3.0	90.	-5.4
7	90.	-4.4	90.	-8.4	90.	75.1	90.	3.0	90.	-5.6
8	90.	-4.5	91.	-8.3	90.	75.4	90.	3.0	90.	-5.7
9	87.	-4..	90.	-8.1	87.	73.5	87.	3.0	87.	-5.4
10	87.	-2.9	90.	-7.8	87.	69.1	87.	3.1	87.	-4.5
11	83.	-1.7	90.	-7.4	83.	63.8	83.	3.1	83.	-3.7
12	82.	-0.2	90.	-7.2	82.	58.7	82.	3.0	82.	-2.8
13	83.	1.0	90.	-7.2	83.	54.5	83.	3.0	83.	-2.1
14	86.	2..	91.	-7.2	86.	51.8	86.	3.1	86.	-1.2
15	84.	3.0	89.	-7.2	84.	49.2	84.	3.0	84.	-0.9
16	82.	3.2	90.	-7.1	82.	48.9	82.	3.0	82.	-0.8
17	80.	2.7	90.	-7.1	80	49.6	80.	3.0	80.	-1.0
18	78.	1.7	91.	-7.4	78	51.4	78.	2.9	78.	-1.8
19	81.	1.3	90.	-7.4	81.	53.9	81.	3.0	81.	-1.9
20	84.	0.9	91.	-7.5	84.	5.. 1	84.	3.0	84.	-2.2
21	84.	-0.2	91.	-7.6	84.		84.	2.9	84.	-2.9
22	85.	-0.8	91.	-7.7	85.		85.	3.0	85.	-3.3
23	87.	-1.2	90.	-7.6	87.	o..	87.	3.1	87.	-3.4
24	88.	-2.1	91.	-7.8	88.	65.9	88.	3.0	88.	-4.0
HOURLY MEAN		-1.2		-7.7		63.0		3.0		-3.5
AVG DAILY MAX		5.2		-4.1		80.1		3.9		1.0
AVG DAILY MIN		-6.2		-11.3		44.5		2 3		-7.4
ABSOLUTE MAX		27.6		13.1		100.0		11.3		14.6
ABSOLUTE MIN		-23.1		-26.0		19.0		0.6		-23.4
TOTAL OBS	2055		2170		2055		2055		2055	

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUNE 1988

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/88 TO 6/30/88

APRIL

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	28.	8.7	29.	0.0	28.	56.1	28.	5.0	28.	5.0
2	28.	7.9	29.	-0.1	28.	[illegible].6	28.	4.9	28.	4.5
3	29.	7.6	29.	-0.1	29.	[illegible].9	29.	4.9	29.	4.4
4	28.	7.3	29.	-0.2	28.	60.8	28.	4.9	28.	4.2
5	27.	7.1	29.	-0.1	27.	62.6	27.	5.0	27.	4.2
6	27.	6.8	29.	-0.2	27.	63.5	27.	5.0	27.	4.1
7	27.	6.7	29.	-0.1	27.	64.3	27.	5.0	27.	4.0
8	27.	7.4	28.	0.1	27.	61.8	27.	5.1	27.	4.4
9	27.	8.4	27.	0.0	27.	57.3	27.	5.0	27.	4.9
10	27.	10.5	28.	0.2	27.	52.3	27.	5.1	27.	6.1
11	28.	12.3	28.	0.0	28.	46.3	28.	5.0	28.	6.9
12	29.	13.6	29.	-0.1	29.	43.0	29.	4.9	29.	7.5
13	29.	14.5	29.	-0.3	29.	40.3	29.	4.8	29.	7.9
14	26.	15.1	29.	-0.5	26.	38.0	26.	4.7	26.	8.0
15	26.	15.7	29.	-0.3	26.	37.5	26.	4.8	26.	8.4
16	25.	15.7	29.	-0.3	25.	38.0	25.	4.7	25.	8.3
17	26.	16.1	29.	-0.5	26.	37.4	26.	4.7	26.	8.6
18	25.	15.8	29.	-0.6	25.	38.4	25.	4.8	25.	8.4
19	25.	15.4	29.	-0.5	25.	37.6	25.	4.7	25.	8.2
20	26.	14.0	29.	-0.3	26.	40.6	26.	4.7	26.	7.5
21	27.	12.8	29.	0.0	27.	45.2	27.	5.0	27.	7.3
22	25.	11.3	28.	-0.2	25.	47.5	25.	4.8	25.	6.3
23	26.	10.8	28.	-0.3	26.	49.1	26.	4.9	26.	6.1
24	27.	9.8	28.	-0.2	27.	51.3	27.	4.9	27.	5.5
HOURLY MEAN		11.2		-0.2		49.7		4.9		6.2
AVG DAILY MAX		17.2		3.1		68.9		6.1		9.7
AVG DAILY MIN		5.5		-3.0		33.3		4.0		2.8
ABSOLUTE MAX		28.0		11.3		96.6		10.2		16.3
ABSOLUTE MIN		-0.5		-14.2		19.0		1.6		-3.4
TOTAL OBS	645		688		645		645		645	

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUNE 1988

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/88 TO 6/30/88

MAY

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	31.	18.0	31.	8.1	31.	54.5	31.	8.3	31.	12.8
2	31.	17.4	31.	8.1	31.	56.4	31.	8.3	31.	12.5
3	31.	16.7	31.	8.0	31.	58.3	31.	8.3	31.	12.2
4	31.	16.2	31.	7.8	31.	59.0	31.	8.2	31.	11.9
5	30.	16.0	31.	7.8	30.	59.6	30.	8.2	30.	11.8
6	31.	15.4	31.	7.8	31.	61.6	31.	8.1	31.	11.5
7	31.	15.3	31.	7.8	31.	61.8	31.	8.2	31.	11.5
8	31.	16.2	31.	7.9	31.	58.7	31.	8.2	31.	11.9
9	31.	17.9	31.	8.0	31.	53.8	31.	8.2	31.	12.7
10	29.	19.5	30.	8.4	29.	50.1	29.	8.4	29.	13.5
11	28.	21.2	29.	8.8	28.	47.1	28.	8.6	28.	14.4
12	29.	22.5	30.	8.5	29.	43.5	29.	8.5	29.	14.8
13	30.	23.6	31.	8.4	30.	40.8	30.	8.5	30.	15.3
14	31.	24.4	31.	8.0	31.	37.8	31.	8.2	31.	15.4
15	29.	25.3	30.	8.0	29.	36.6	29.	8.3	29.	15.8
16	28	25.6	30.	8.1	28.	36.7	28.	8.4	28.	16.1
17	29.	25.5	31.	8.0	29.	36.8	29.	8.3	29.	15.9
18	29.	25.2	31.	8.2	29.	37.8	29.	8.5	29.	15.9
19	31.	24.6	31.	8.3	31.	38.5	31.	8.4	31.	15.6
20	30.	23.4	31.	8.4	30.	41.7	30.	8.5	30.	15.2
21	29.	22.1	31.	8.4	29.	44.4	29.	8.5	29.	14.7
22	30.	20.6	31.	8.4	30.	47.8	30.	8.5	30.	14.1
23	31.	19.5	31.	8.4	31	51.2	31.	8.5	31.	13.6
24	31.	18.6	31.	8.5	31.	54.0	31.	8.6	31.	13.3
HOURLY MEAN		20.4		8.2		48.9		8.3		13.8
AVG DAILY MAX		26.1		10.8		66.5		9.8		16.3
AVG DAILY MIN		14.8		5.2		33.2		6.9		10.8
ABSOLUTE MAX		31.5		17.2		86.3		14.2		20.8
ABSOLUTE MIN		9.8		-4.3		19.0		3.3		6.4
TOTAL OBS	722		738		722		722		722	

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUNE 1988

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/88 TO 6/30/88

JUNE

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	29.	22.0	29.	11.4	29.	52.0	29.	10.1	29.	15.9
2	29.	21.3	29.	11.4	29.	54.5	29.	10.2	29.	15.7
3	29.	20.5	29.	11.5	29.	57.5	29.	10.3	29.	15.4
4	29.	20.0	29.	11.5	29.	59.2	29.	10.3	29.	15.2
5	29.	19.6	29.	11.2	29.	59.2	29.	10.1	29.	14.9
6	29.	19.4	29.	11.1	29.	59.6	29.	10.0	29.	14.7
7	29.	20.3	29.	11.4	29.	57.7	29.	10.2	29.	15.3
8	29.	21.9	29.	11.6	29.	53.1	29.	10.3	29.	16.0
9	30.	23.8	30.	11.9	30.	48.4	30.	10.4	30.	16.9
10	30.	25.3	30.	11.8	30.	44.1	30.	10.3	30.	17.4
11	30.	26.8	30.	11.8	30.	40.4	30.	10.3	30.	17.9
12	30.	28.1	30.	11.9	30.	37.9	30.	10.4	30.	18.4
13	30.	28.9	30.	11.9	30.	36.2	30.	10.3	30.	18.7
14	30.	29.7	30.	11.7	30.	34.5	30.	10.3	30.	18.9
15	30.	30.5	30.	11.7	30.	33.2	30.	10.2	30.	19.1
16	29.	30.4	29.	11.3	29.	32.7	29.	9.9	29.	18.9
17	29.	30.3	29.	11.2	29.	33.0	29.	9.9	29.	18.8
18	30.	30.3	30.	11.5	30.	33.3	30.	10.1	30.	19.0
19	29.	29.4	29.	11.6	29.	35.0	29.	10.2	29.	18.7
20	29.	27.7	29.	11.8	29.	38.9	29.	10.4	29.	18.3
21	30.	25.9	30.	11.9	30.	43.1	30.	10.4	30.	17.6
22	30.	24.6	30.	11.8	30.	46.2	30.	10.4	30.	17.1
23	29.	23.4	29.	11.6	29.	49.0	29.	10.3	29.	16.5
24	29.	22.6	29.	11.4	29.	50.3	29.	10.1	29.	16.1
HOURLY MEAN		25.1		11.6		45.3		10.2		17.1
AVG DAILY MAX		31.2		14.1		62.8		12.0		19.7
AVG DAILY MIN		19.1		9.4		30.7		8.8		14.2
ABSOLUTE MAX		38.4		21.2		84.2		18.0		24.2
ABSOLUTE MIN		8.1		-1.9		19.0		3.9		5.4
TOTAL OBS	706		706		706		706		706	

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUNE 1988

HOUR AVERAGES FOR THE PERIOD 4/ 1/88 TO 6/30/88

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	88.	16.3	89.	6.5	88.	54.2	88.	7.9	88.	11.4
2	88.	15.6	89.	6.5	88.	56.5	88.	7.9	88.	11.0
3	89.	15.0	89.	6.5	89.	58.5	89.	7.8	89.	10.7
4	88.	14.6	89.	6.4	88.	59.6	88.	7.8	88.	10.5
5	86.	14.4	89.	6.3	86.	60.4	86.	7.8	86.	10.5
6	87.	14.1	89.	6.3	87.	61.5	87.	7.8	87.	10.3
7	87.	14.3	89.	6.4	87.	61.2	87.	7.9	87.	10.4
8	87.	15.4	88.	6.6	87.	57.8	87.	7.9	87.	10.9
9	88.	17.0	88.	6.9	88.	53.0	88.	8.0	88.	11.7
10	86.	18.7	88.	6.9	86.	48.7	86.	8.0	86.	12.5
11	86.	20.3	87.	7.0	86.	44.5	86.	8.0	86.	13.2
12	88.	21.4	89.	6.8	88.	41.5	88.	7.9	88.	13.6
13	89.	22.4	90.	6.7	89.	39.1	89.	7.9	89.	14.0
14	87.	23.5	90.	6.5	87.	36.8	87.	7.9	87.	14.4
15	85.	24.2	89.	6.5	85.	35.7	85.	7.9	85.	14.7
16	82.	24.3	88.	6.4	82.	35.7	82.	7.8	82.	14.7
17	84.	24.2	89.	6.3	84.	35.7	84.	7.8	84.	14.7
18	84.	24.2	90.	6.5	84.	36.4	84.	7.9	84.	14.8
19	85.	23.5	89.	6.5	85.	37.0	85.	7.9	85.	14.5
20	85.	22.0	89.	6.7	85.	40.4	85.	8.0	85.	13.9
21	86.	20.5	90.	6.9	86.	44.2	86.	8.1	86.	13.4
22	85.	19.3	89.	6.8	85.	47.2	85.	8.1	85.	12.8
23	86.	18.1	88.	6.7	86.	49.8	86.	8.0	86.	12.3
24	87.	17.2	88.	6.7	87.	51.9	87.	7.9	87.	11.8
HOURLY MEAN		19.2		6.6		47.9		7.9		12.6
AVG DAILY MAX		24.8		9.3		66.1		9.3		15.3
AVG DAILY MIN		13.1		3.9		32.4		6.6		9.3
ABSOLUTE MAX		38.4		21.2		96.6		18.0		24.2
ABSOLUTE MIN		-0.5		-14.2		19.0		1.6		-3.4
TOTAL OBS	2073		2132		2073		2073		2073	

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-JUNE 1988

HOUR AVERAGES FOR THE PERIOD 1/ 1/88 TO 6/30/88

10.0 METERS LEVEL

	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
HOUR	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	177.	6.8	179.	-0.8	177.	60.9	177.	5.4	177.	3.4
2	176.	6.4	180.	-0.9	176.	62.8	176.	5.4	176.	3.2
3	178.	5.8	180.	-0.9	178.	64.6	178.	5.4	178.	2.9
4	177.	5.4	179.	-1.0	177.	65.9	177.	5.4	177.	2.6
5	175.	5.1	180.	-1.0	175.	66.8	175.	5.4	175.	2.4
6	177.	4.8	180.	-1.0	177.	68.1	177.	5.4	177.	2.3
7	177.	4.8	179.	-1.0	177.	68.3	177.	5.4	177.	2.2
8	177.	5.3	179.	-1.0	177.	66.8	177.	5.4	177.	2.5
9	175.	6.5	178.	-0.7	175.	63.2	175.	5.5	175.	3.2
10	173.	7.9	178.	-0.5	173.	59.0	173.	5.5	173.	3.9
11	169.	9.5	177.	-0.3	169.	54.0	169.	5.6	169.	4.9
12	170.	11.0	179.	-0.3	170.	49.8	170.	5.6	170.	5.7
13	172.	12.1	180.	-0.2	172.	46.5	172.	5.5	172.	6.2
14	173.	12.9	181.	-0.4	173.	44.2	173.	5.5	173.	6.6
15	169.	13.6	178.	-0.3	169.	42.4	169.	5.5	169.	7.0
16	164.	13.7	178.	-0.4	164.	42.3	164.	5.4	164.	7.0
17	164.	13.7	179.	-0.5	164.	42.5	164.	5.4	164.	7.0
18	162.	13.4	181.	-0.5	162.	43.6	162.	5.5	162.	6.8
19	166.	12.7	179.	-0.5	166.	45.3	166.	5.5	166.	6.5
20	169.	11.5	180.	-0.5	169.	47.7	169.	5.5	169.	5.9
21	170.	10.3	181.	-0.4	170.	51.1	170.	5.5	170.	5.3
22	170.	9.2	180.	-0.5	170.	53.9	170.	5.5	170.	4.8
23	173.	8.4	178.	-0.6	173.	56.6	173.	5.5	173.	4.4
24	175.	7.5	179.	-0.7	175.	58.9	175.	5.5	175.	3.9
HOURLY MEAN		9.0		-0.6		55.4		5.5		4.6
AVG DAILY MAX		15.0		2.6		73.1		6.6		8.1
AVG DAILY MIN		3.5		-3.7		38.4		4.4		0.9
ABSOLUTE MAX		38.4		21.2		100.0		18.0		24.2
ABSOLUTE MIN		-23.1		-26.0		19.0		0.6		-23.4
TOTAL OBS	4128		4302		4128		4128		4128	

Wind Direction Frequencies
10-Meter Level

NPPD-COOPER STATION 10-M WIND DIRECTION JAN-MAR 198
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JANUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	0.0	3.2	6.5	6.5	3.2	0.0	3.2	6.5	16.1	16.1	3.2	0.0	3.2	9.7	6.5	16.1	0.0	100.
2	0.0	0.0	3.2	0.0	6.5	3.2	0.0	9.7	19.4	9.7	6.5	3.2	3.2	9.7	12.9	12.9	0.0	100.
3	0.0	0.0	6.5	0.0	3.2	3.2	0.0	12.9	19.4	9.7	0.0	3.2	9.7	3.2	16.1	12.9	0.0	100.
4	0.0	3.2	3.2	3.2	6.5	0.0	0.0	6.5	25.8	9.7	0.0	6.5	6.5	9.7	12.9	6.5	0.0	100.
5	3.2	0.0	6.5	3.2	3.2	3.2	0.0	25.8	6.5	9.7	3.2	3.2	9.7	3.2	9.7	9.7	0.0	100.
6	3.2	0.0	3.2	3.2	3.2	3.2	3.2	19.4	12.9	12.9	0.0	0.0	9.7	3.2	12.9	9.7	0.0	100.
7	3.2	0.0	0.0	6.5	3.2	3.2	0.0	16.1	6.5	9.7	6.5	6.5	3.2	3.2	22.6	9.7	0.0	100.
8	9.7	3.2	3.2	3.2	9.7	0.0	3.2	12.9	9.7	6.5	3.2	3.2	3.2	6.5	12.9	9.7	0.0	100.
9	3.2	3.2	3.2	6.5	0.0	0.0	3.2	12.9	16.4	6.5	6.5	0.0	6.5	0.0	19.4	9.7	0.0	100.
10	6.5	3.2	0.0	3.2	3.2	6.5	0.0	9.7	16.1	6.5	3.2	6.5	3.2	9.7	9.7	12.9	0.0	100.
11	6.5	3.2	0.0	3.2	3.2	6.5	0.0	3.2	19.4	3.2	9.7	3.2	0.0	12.9	9.7	16.1	0.0	100.
12	6.5	6.5	3.2	3.2	0.0	3.2	3.2	3.2	9.7	16.1	9.7	3.2	0.0	16.1	6.5	9.7	0.0	100.
13	6.5	0.0	0.0	3.2	3.2	0.0	6.5	3.2	3.2	22.6	6.5	6.5	3.2	9.7	16.1	9.7	0.0	100.
14	6.5	3.2	3.2	3.2	0.0	0.0	6.5	0.0	9.7	19.4	6.5	3.2	0.0	12.9	16.1	9.7	0.0	100.
15	3.2	3.2	0.0	3.2	0.0	3.2	3.2	0.0	16.1	16.1	3.2	3.2	0.0	12.9	12.9	19.4	0.0	100.
16	9.7	0.0	0.0	3.2	0.0	3.2	0.0	6.5	9.7	19.4	3.2	3.2	0.0	12.9	19.4	9.7	0.0	100.
17	10.0	0.0	0.0	0.0	3.3	3.3	0.0	6.7	10.0	16.7	10.0	3.3	3.3	10.0	16.7	6.7	0.0	100.
18	9.7	0.0	0.0	6.5	3.2	0.0	3.2	3.2	16.1	19.4	3.2	3.2	0.0	3.2	22.6	6.5	0.0	100.
19	3.2	0.0	0.0	3.2	3.2	0.0	3.2	9.7	22.6	16.1	0.0	0.0	6.5	3.2	12.9	16.1	0.0	100.
20	3.2	9.7	0.0	0.0	6.5	0.0	6.5	3.2	12.9	12.9	9.7	0.0	3.2	3.2	12.9	16.1	0.0	100.
21	9.7	0.0	0.0	3.2	3.2	0.0	3.2	6.5	16.1	16.1	6.5	0.0	0.0	9.7	16.1	9.7	0.0	100.
22	3.2	3.2	3.2	0.0	6.5	0.0	6.5	6.5	16.1	9.7	0.0	0.0	9.7	6.5	12.9	16.1	0.0	100.
23	6.5	6.5	0.0	3.2	0.0	3.2	3.2	12.9	12.9	9.7	6.5	0.0	6.5	6.5	16.1	6.5	0.0	100.
24	3.2	3.2	0.0	3.2	3.2	0.0	3.2	16.1	12.9	12.9	3.2	3.2	3.2	6.5	9.7	16.1	0.0	100.
ALL	4.8	2.3	1.9	3.1	3.2	1.9	2.5	8.9	14.1	12.8	4.6	2.7	3.9	7.7	14.0	11.6	0.0	100.

NUMBER OF OBS = 743

NPPD-COOPER STATION 10-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

FEBRUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	14.3	3.6	3.6	3.6	0.0	0.0	3.6	10.7	14.3	10.7	0.0	3.6	0.0	3.6	14.3	14.3	0.0	100.
2	13.8	3.4	3.4	3.4	3.4	0.0	3.4	13.8	0.0	13.8	0.0	6.9	0.0	3.4	13.8	17.2	0.0	100.
3	13.8	3.4	3.4	0.0	0.0	0.0	6.9	13.8	6.9	10.3	3.4	0.0	6.9	10.3	10.3	10.3	0.0	100.
4	13.8	10.3	0.0	0.0	0.0	0.0	13.8	6.9	6.9	3.4	10.3	0.0	3.4	3.4	20.7	6.9	0.0	100.
5	10.3	6.9	3.4	0.0	0.0	3.4	10.3	13.8	3.4	6.9	10.3	0.0	0.0	10.3	10.3	10.3	0.0	100.
6	6.9	3.4	6.9	0.0	3.4	0.0	6.9	13.8	10.3	3.4	6.9	0.0	6.9	3.4	13.8	13.8	0.0	100.
7	24.1	0.0	0.0	0.0	0.0	0.0	13.8	6.9	6.9	0.0	3.4	13.8	3.4	3.4	13.8	10.3	0.0	100.
8	10.3	3.4	0.0	0.0	0.0	0.0	6.9	0.0	13.8	0.0	6.9	6.9	10.3	17.2	6.9	17.2	0.0	100.
9	13.8	0.0	0.0	0.0	0.0	3.4	6.9	6.9	13.8	0.0	3.4	3.4	3.4	3.4	17.2	24.1	0.0	100.
10	20.7	0.0	0.0	0.0	0.0	0.0	6.9	10.3	13.8	3.4	6.9	0.0	0.0	6.9	3.4	27.6	0.0	100.
11	14.3	3.6	0.0	0.0	0.0	3.6	0.0	7.1	10.7	10.7	10.7	3.6	0.0	10.7	3.6	21.4	0.0	100.
12	17.9	3.6	0.0	0.0	0.0	3.6	0.0	14.3	10.7	3.6	7.1	3.6	3.6	7.1	10.7	14.3	0.0	100.
13	14.3	0.0	3.6	0.0	0.0	0.0	3.6	7.1	14.3	10.7	0.0	3.6	3.6	7.1	14.3	17.9	0.0	100.
14	10.3	3.4	0.0	0.0	0.0	0.0	3.4	3.4	13.8	3.4	10.3	3.4	6.9	10.3	6.9	24.1	0.0	100.
15	13.8	0.0	3.4	0.0	0.0	0.0	13.8	0.0	6.9	0.0	6.9	0.0	17.2	13.8	10.3	13.8	0.0	100.
16	13.8	0.0	3.4	0.0	0.0	0.0	10.3	0.0	6.9	3.4	3.4	3.4	10.3	6.9	31.0	6.9	0.0	100.
17	10.3	0.0	3.4	0.0	0.0	0.0	10.3	0.0	13.8	0.0	6.9	0.0	0.0	20.7	17.2	17.2	0.0	100.
18	20.7	0.0	3.4	0.0	0.0	3.4	10.3	0.0	10.3	3.4	3.4	6.9	0.0	13.8	17.2	6.9	0.0	100.
19	20.7	3.4	0.0	0.0	0.0	0.0	13.8	6.9	10.3	3.4	0.0	3.4	3.4	10.3	17.2	6.9	0.0	100.
20	17.2	0.0	0.0	3.4	0.0	3.4	3.4	13.8	13.8	0.0	0.0	3.4	3.4	10.3	13.8	13.8	0.0	100.
21	13.8	0.0	3.4	0.0	3.4	6.9	0.0	6.9	24.1	0.0	0.0	0.0	6.9	6.9	13.8	13.8	0.0	100.
22	13.8	3.4	3.4	0.0	6.9	3.4	3.4	3.4	17.2	10.3	0.0	3.4	3.4	3.4	6.9	17.2	0.0	100.
23	20.7	0.0	0.0	0.0	3.4	6.9	6.9	6.9	6.9	13.8	3.4	0.0	3.4	3.4	10.3	13.8	0.0	100.
24	10.3	3.4	0.0	6.9	0.0	3.4	6.9	6.9	20.7	6.9	0.0	3.4	0.0	3.4	6.9	20.7	0.0	100.
ALL	14.7	2.3	1.9	0.7	0.9	1.7	6.9	7.2	11.3	5.1	4.3	3.0	4.0	8.1	12.7	15.0	0.0	100.

NUMBER OF OBS = 692

NPPD-COOPER STATION 10-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MARCH

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	12.9	3.2	3.2	3.2	0.0	3.2	9.7	6.5	12.9	6.5	0.0	9.7	0.0	9.7	6.5	12.9	0.0	100.
2	3.2	16.1	0.0	3.2	3.2	6.5	6.5	9.7	12.9	0.0	0.0	6.5	3.2	6.5	9.7	12.9	0.0	100.
3	6.5	9.7	3.2	0.0	3.2	6.5	6.5	6.5	12.9	3.2	3.2	6.5	3.2	9.7	9.7	9.7	0.0	100.
4	10.0	13.3	0.0	0.0	6.7	3.3	13.3	6.7	6.7	0.0	10.0	0.0	3.3	3.3	13.3	10.0	0.0	100.
5	6.5	12.9	3.2	3.2	0.0	0.0	6.5	16.1	12.9	0.0	6.5	3.2	3.2	9.7	9.7	6.5	0.0	100.
6	12.9	3.2	3.2	0.0	3.2	6.5	6.5	6.5	19.4	3.2	0.0	3.2	3.2	12.9	9.7	6.5	0.0	100.
7	16.7	0.0	3.3	0.0	0.0	0.0	16.7	10.0	13.3	0.0	6.7	3.3	3.3	13.3	6.7	6.7	0.0	100.
8	12.9	6.5	3.2	0.0	0.0	0.0	19.4	9.7	0.0	9.7	9.7	3.2	3.2	9.7	12.9	0.0	0.0	100.
9	6.7	13.3	0.0	0.0	3.3	0.0	20.0	6.7	6.7	10.0	3.3	6.7	3.3	10.0	6.7	3.3	0.0	100.
10	16.7	3.3	0.0	3.3	0.0	3.3	10.0	6.7	16.7	6.7	0.0	6.7	0.0	6.7	16.7	3.3	0.0	100.
11	3.2	12.9	0.0	3.2	3.2	6.5	3.2	6.5	16.1	6.5	3.2	0.0	6.5	3.2	16.1	9.7	0.0	100.
12	6.5	6.5	6.5	3.2	3.2	3.2	3.2	9.7	12.9	9.7	0.0	3.2	6.5	0.0	19.4	6.5	0.0	100.
13	6.5	6.5	3.2	6.5	3.2	3.2	0.0	6.5	12.9	16.1	0.0	6.5	3.2	0.0	19.4	6.5	0.0	100.
14	6.5	3.2	0.0	3.2	0.0	6.5	9.7	0.0	9.7	12.9	0.0	9.7	3.2	6.5	9.7	29.0	0.0	100.
15	0.0	3.3	0.0	3.3	0.0	6.7	3.3	10.0	6.7	13.3	0.0	3.3	6.7	6.7	16.7	20.0	0.0	100.
16	3.3	3.3	0.0	3.3	0.0	6.7	6.7	3.3	6.7	16.7	0.0	3.3	3.3	3.3	23.3	16.7	0.0	100.
17	0.0	3.2	3.2	3.2	0.0	3.2	9.7	9.7	6.5	9.7	0.0	3.2	3.2	6.5	29.0	9.7	0.0	100.
18	3.2	3.2	3.2	3.2	3.2	0.0	12.9	6.5	3.2	9.7	6.5	0.0	0.0	9.7	22.6	12.9	0.0	100.
19	0.0	10.0	6.7	3.3	6.7	0.0	13.3	0.0	10.0	3.3	6.7	0.0	0.0	16.7	13.3	10.0	0.0	100.
20	6.5	12.9	0.0	3.2	0.0	3.2	9.7	3.2	9.7	0.0	6.5	0.0	6.5	16.1	12.9	9.7	0.0	100.
21	16.1	6.5	3.2	0.0	0.0	0.0	9.7	12.9	3.2	3.2	16.1	3.2	3.2	6.5	9.7	6.5	0.0	100.
22	6.5	6.5	3.2	0.0	0.0	6.5	6.5	16.1	3.2	9.7	3.2	0.0	3.2	3.2	19.4	9.7	3.2	100.
23	6.7	3.3	6.7	3.3	0.0	3.3	13.3	16.7	10.0	0.0	6.7	0.0	6.7	0.0	13.3	6.7	3.3	100.
24	6.5	12.9	3.2	0.0	0.0	6.5	12.9	6.5	6.5	6.5	0.0	6.5	6.5	6.5	12.9	6.5	0.0	100.
ALL	7.3	7.3	2.4	2.2	1.6	3.5	9.5	8.0	9.6	6.5	3.7	3.7	3.5	7.3	14.1	9.2	0.3	100.

NUMBER OF OBS = 736

NPPD-COOPER STATION 10-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

B WIND ROSES (PERCENT)

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	8.9	3.3	4.4	4.4	1.1	1.1	5.6	7.8	14.4	11.1	1.1	4.4	1.1	7.8	8.9	14.4	0.0	100.
2	5.5	6.6	2.2	2.2	4.4	3.3	3.3	11.0	11.0	7.7	2.2	5.5	2.2	6.6	12.1	14.3	0.0	100.
3	6.6	4.4	4.4	0.0	2.2	3.3	4.4	11.0	13.2	7.7	2.2	3.3	6.6	7.7	12.1	11.0	0.0	100.
4	7.8	8.9	1.1	1.1	4.4	1.1	8.9	6.7	13.3	4.4	6.7	2.2	4.4	5.6	15.6	7.8	0.0	100.
5	6.6	6.6	4.4	2.2	1.1	2.2	5.5	18.7	7.7	5.5	6.6	2.2	4.4	7.7	9.9	8.8	0.0	100.
6	7.7	2.2	4.4	1.1	3.3	3.3	5.5	13.2	14.3	6.6	2.2	1.1	6.6	6.6	12.1	9.9	0.0	100.
7	14.4	0.0	1.1	2.2	1.1	1.1	10.0	11.1	8.9	3.3	5.6	7.8	3.3	6.7	14.4	8.9	0.0	100.
8	11.0	4.4	2.2	1.1	3.3	0.0	9.9	7.7	7.7	5.5	6.6	4.4	5.5	11.0	11.0	8.8	0.0	100.
9	7.8	5.6	1.1	2.2	1.1	1.1	10.0	8.9	13.3	5.6	4.4	3.3	4.4	4.4	14.4	12.2	0.0	100.
10	14.4	2.2	0.0	2.2	1.1	3.3	5.6	8.9	15.6	5.6	3.3	4.4	1.1	7.8	10.0	14.4	0.0	100.
11	7.8	6.7	0.0	2.2	2.2	5.6	1.1	5.6	15.6	6.7	7.8	2.2	2.2	8.9	10.0	15.6	0.0	100.
12	10.0	5.6	3.3	2.2	1.1	3.3	2.2	8.9	11.1	10.0	5.6	3.3	3.3	7.8	12.2	10.0	0.0	100.
13	8.9	2.2	2.2	3.3	2.2	1.1	3.3	5.6	10.0	16.7	2.2	5.6	3.3	5.6	16.7	11.1	0.0	100.
14	7.7	3.3	1.1	2.2	0.0	2.2	6.6	1.1	11.0	12.1	5.5	5.5	3.3	9.9	11.0	17.6	0.0	100.
15	5.6	2.2	1.1	2.2	0.0	3.3	6.7	3.3	10.0	10.0	3.3	2.2	7.8	11.1	13.3	17.8	0.0	100.
16	8.9	1.1	1.1	2.2	0.0	3.3	5.6	3.3	7.8	13.3	2.2	3.3	4.4	7.8	24.4	11.1	0.0	100.
17	6.7	1.1	2.2	1.1	1.1	2.2	6.7	5.6	10.0	8.9	5.6	2.2	2.2	12.2	21.1	11.1	0.0	100.
18	11.0	1.1	2.2	3.3	2.2	1.1	8.8	3.3	9.9	11.0	4.4	3.3	0.0	8.8	20.9	8.8	0.0	100.
19	7.8	4.4	2.2	2.2	3.3	0.0	10.0	5.6	14.4	7.8	2.2	1.1	3.3	10.0	14.4	11.1	0.0	100.
20	8.8	7.7	0.0	2.2	2.2	2.2	6.6	6.6	12.1	4.4	5.5	1.1	4.4	9.9	13.2	13.2	0.0	100.
21	13.2	2.2	2.2	1.1	2.2	2.2	4.4	8.8	14.3	6.6	7.7	1.1	3.3	7.7	13.2	9.9	0.0	100.
22	7.7	4.4	3.3	0.0	4.4	3.3	5.5	8.8	12.1	9.9	1.1	1.1	5.5	4.4	13.2	14.3	1.1	100.
23	11.1	3.3	2.2	2.2	1.1	4.4	7.8	12.2	10.0	7.8	5.6	0.0	5.6	3.3	13.3	8.9	1.1	100.
24	6.6	6.6	1.1	3.3	1.1	3.3	7.7	9.9	13.2	8.8	1.1	4.4	3.3	5.5	9.9	14.3	0.0	100.
ALL	8.8	4.0	2.1	2.0	1.9	2.4	6.3	8.1	11.7	8.2	4.2	3.1	3.8	7.7	13.6	11.9	0.1	100.

NUMBER OF OBS = 2171

NPPD-COOPER STATION 10-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

APRIL

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.3	10.3	3.4	6.9	6.9	6.9	6.9	3.4	17.2	3.4	3.4	0.0	3.4	3.4	3.4	6.9	3.4	100.
2	13.8	3.4	0.0	6.9	0.0	6.9	6.9	6.9	24.1	3.4	0.0	0.0	0.0	10.3	3.4	10.3	3.4	100
3	6.9	6.9	3.4	3.4	3.4	6.9	10.3	10.3	6.9	10.3	3.4	3.4	3.4	6.9	0.0	10.3	3.4	100.
4	10.3	3.4	0.0	3.4	6.9	0.0	0.0	20.7	13.8	3.4	10.3	0 0	3.4	3.4	3.4	10.3	6.9	100.
5	17.2	3.4	3.4	3.4	3.4	3.4	6.9	10.3	10.3	3.4	3.4	3.4	6.9	0.0	6.9	10.3	3.4	100.
6	13.8	0.0	0.0	13.8	3.4	3.4	10.3	6.9	0.0	13.8	6.9	0.0	3.4	6.9	3.4	10.3	3.4	100.
7	13.8	6.9	0.0	6.9	6.9	3.4	6.9	10.3	10.3	10.3	0.0	0.0	3.4	6.9	3.4	10.3	0.0	100.
8	10.7	7.1	0.0	0.0	7.1	0.0	10.7	10.7	14.3	0.0	14.3	0.0	0.0	3.6	3.6	14.3	3.6	100.
9	10.7	7.1	0.0	0.0	3.6	10.7	3.6	21.4	3.6	7.1	10.7	3.6	0.0	0.0	7.1	10.7	0.0	100.
10	10.3	10.3	0.0	0.0	10.3	3.4	3.4	10.3	13.8	6.9	3.4	6.9	3.4	3.4	3.4	10.3	0.0	100.
11	6.9	13.8	0.0	6.9	0.0	3.4	6.9	6.9	17.2	3.4	3.4	10.3	0.0	6.9	3.4	10.3	0.0	100.
12	17.2	5.9	3.4	6.9	0.0	0.0	3.4	6.9	13.8	3.4	10.3	3.4	3.4	3.4	6.9	10.3	0.0	100.
13	17.2	6.9	3.4	0.0	3.4	3.4	0.0	6.9	20.7	10.3	3.4	3.4	3.4	3.4	3.4	10.3	0.0	100.
14	10.3	13.8	0.0	0.0	3.4	3.4	0.0	6.9	20.7	10.3	0.0	3.4	3.4	0.0	6.9	17.2	0.0	100.
15	17.2	6.9	0.0	0.0	3.4	0.0	0.0	6.9	24.1	6.9	0.0	6.9	0.0	3.4	13.8	10.3	0.0	100.
16	10.3	10.3	0.0	0.0	3.4	0.0	0.0	6.9	24.1	3.4	3.4	3.4	3.4	10.3	6.9	13.8	0.0	100.
17	10.3	10.3	0.0	3.4	0.0	0.0	3.4	6.9	17.2	10.3	6.9	3.4	0.0	3.4	6.9	17.2	0.0	100.
18	10.3	13.8	0.0	3.4	0.0	0.0	0.0	10.3	13.8	10.3	6.9	3.4	0.0	3.4	17.2	6.9	0.0	100.
19	3.4	17.2	0.0	3.4	0.0	0.0	3.4	13.8	10.3	10.3	3.4	0.0	6.9	0.0	6.9	20.7	0.0	100.
20	10.3	6.9	3.4	3.4	0.0	0.0	3.4	10.3	17.2	10.3	0.0	3.4	3.4	0.0	13.8	13.8	0.0	100.
21	17.2	6.9	6.9	0.0	0.0	0.0	6.9	17.2	13.8	3.4	0.0	0.0	6.9	3.4	6.9	10.3	0.0	100.
22	10.3	6.9	10.3	3.4	0.0	0.0	3.4	10.3	17.2	0.0	0.0	0.0	6.9	6.9	0.0	20.7	3.4	100.
23	20.7	10.3	6.9	10.3	0.0	3.4	3.4	3.4	20.7	3.4	0.0	0.0	6.9	3.4	0.0	3.4	3.4	100.
24	10.3	6.9	6.9	3.4	3.4	6.9	6.9	3.4	20.7	6.9	0.0	0.0	3.4	3.4	3.4	10.3	3.4	100.
ALL	12.1	8.2	2.2	3.7	2.9	2.7	4.5	9.5	15.3	6.5	3.9	2.4	3.2	4.0	5.6	11.7	1.6	100.

NUMBER OF OBS = 694

NPPD-COOPER STATION 10-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MAY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	9.7	0.0	3.2	0.0	3.2	3.2	16.1	9.7	19.4	3.2	3.2	0.0	9.7	6.5	3.2	9.7	0.0	100.
2	3.2	6.5	6.5	0.0	3.2	6.5	12.9	16.1	12.9	3.2	3.2	3.2	3.2	3.2	9.7	6.5	0.0	100.
3	6.5	6.5	12.9	0.0	3.2	6.5	12.9	9.7	16.1	6.5	0.0	0.0	6.5	3.2	0.0	9.7	0.0	100.
4	6.5	6.5	6.5	3.2	6.5	3.2	19.4	9.7	19.4	6.5	0.0	3.2	6.5	0.0	0.0	3.2	0.0	100.
5	6.5	6.5	0.0	3.2	6.5	6.5	16.1	19.4	9.7	3.2	0.0	0.0	3.2	6.5	6.5	6.5	0.0	100.
6	12.9	6.5	0.0	3.2	3.2	9.7	16.1	22.6	12.9	0.0	0.0	0.0	0.0	3.2	3.2	6.5	0.0	100.
7	9.7	9.7	0.0	0.0	3.2	6.5	25.8	22.6	9.7	0.0	0.0	0.0	0.0	3.2	6.5	3.2	0.0	100.
8	3.2	9.7	0.0	0.0	0.0	6.5	29.0	12.9	19.4	0.0	0.0	0.0	0.0	6.5	6.5	6.5	0.0	100.
9	9.7	9.7	0.0	3.2	0.0	3.2	12.9	16.1	16.1	6.5	3.2	3.2	0.0	3.2	6.5	6.5	0.0	100.
10	10.0	10.0	3.3	0.0	3.3	3.3	13.3	3.3	23.3	10.0	0.0	0.0	0.0	6.7	3.3	10.0	0.0	100.
11	6.9	3.4	10.3	3.4	0.0	0.0	17.2	3.4	24.1	10.3	0.0	0.0	0.0	3.4	13.8	3.4	0.0	100.
12	10.0	6.7	6.7	3.3	0.0	0.0	13.3	6.7	26.7	6.7	0.0	0.0	3.3	3.3	3.3	10.0	0.0	100.
13	6.5	3.2	6.5	3.2	0.0	0.0	6.5	16.1	19.4	9.7	0.0	0.0	6.5	6.5	6.5	9.7	0.0	100.
14	6.5	0.0	6.5	0.0	0.0	3.2	6.5	12.9	19.4	12.9	0.0	3.2	0.0	9.7	9.7	9.7	0.0	100.
15	3.3	3.3	0.0	6.7	0.0	3.3	6.7	16.7	16.7	10.0	0.0	0.0	3.3	10.0	10.0	10.0	0.0	100.
16	3.3	3.3	3.3	3.3	3.3	0.0	16.7	13.3	16.7	6.7	0.0	0.0	3.3	6.7	10.0	10.0	0.0	100.
17	3.2	6.5	3.2	3.2	3.2	3.2	6.5	9.7	22.6	6.5	3.2	0.0	6.5	0.0	9.7	12.9	0.0	100.
18	3.2	9.7	0.0	0.0	3.2	3.2	3.2	22.6	16.1	6.5	0.0	3.2	9.7	3.2	12.9	3.2	0.0	100.
19	9.7	3.2	0.0	3.2	0.0	3.2	9.7	19.4	16.1	6.5	0.0	3.2	6.5	3.2	12.9	3.2	0.0	100.
20	12.9	3.2	6.5	0.0	3.2	0.0	9.7	16.1	19.4	3.2	9.7	0.0	3.2	6.5	3.2	3.2	0.0	100.
21	9.7	3.2	0.0	3.2	6.5	0.0	6.5	19.4	16.1	3.2	6.5	0.0	6.5	3.2	12.9	3.2	0.0	100.
22	9.7	0.0	3.2	0.0	3.2	6.5	9.7	19.4	16.1	6.5	0.0	0.0	6.5	0.0	9.7	9.7	0.0	100.
23	3.2	3.2	3.2	3.2	6.5	3.2	12.9	9.7	19.4	6.5	3.2	0.0	6.5	3.2	0.0	16.1	0.0	100.
24	9.7	3.2	0.0	0.0	6.5	6.5	9.7	12.9	16.1	3.2	0.0	3.2	9.7	0.0	6.5	12.9	0.0	100.
ALL	7.3	5.1	3.4	1.9	2.8	3.7	12.9	14.2	17.6	5.7	1.4	0.9	4.2	4.2	6.9	7.7	0.0	100.

NUMBER OF OBS = 738

NPPD-COOPER STATION 10-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JUNE

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.3	0.0	3.4	0.0	0.0	10.3	10.3	24.1	17.2	17.2	0.0	0.0	0.0	3.4	3.4	0.0	0.0	100.
2	6.9	6.9	3.4	0.0	6.9	3.4	3.4	13.8	34.5	6.9	0.0	0.0	3.4	3.4	3.4	0.0	3.4	100.
3	10.3	10.3	0.0	3.4	6.9	0.0	3.4	20.7	24.1	10.3	3.4	0.0	0.0	0.0	0.0	6.9	0.0	100.
4	17.2	0.0	6.9	3.4	3.4	10.3	0.0	10.3	31.0	3.4	10.3	0.0	0.0	0.0	0.0	3.4	0.0	100.
5	13.8	0.0	0.0	6.9	3.4	0.0	10.3	13.8	31.0	3.4	10.3	0.0	0.0	3.4	3.4	0.0	0.0	100.
6	10.3	0.0	3.4	6.9	3.4	3.4	10.3	6.9	31.0	10.3	6.9	0.0	3.4	0.0	3.4	0.0	0.0	100.
7	3.4	6.9	0.0	3.4	6.9	3.4	10.3	20.7	20.7	6.9	10.3	0.0	0.0	0.0	0.0	6.9	0.0	100.
8	6.9	6.9	0.0	3.4	3.4	3.4	17.2	10.3	27.6	10.3	6.9	3.4	0.0	0.0	0.0	0.0	0.0	100.
9	6.7	3.3	3.3	3.3	3.3	10.0	3.3	10.0	33.3	16.7	3.3	3.3	0.0	0.0	0.0	0.0	0.0	100.
10	6.7	3.3	3.3	6.7	3.3	3.3	10.0	10.0	26.7	16.7	3.3	3.3	0.0	3.3	0.0	0.0	0.0	100.
11	6.7	3.3	3.3	6.7	0.0	13.3	10.0	6.7	30.0	13.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	100.
12	0.0	6.7	6.7	10.0	6.7	6.7	6.7	6.7	30.0	16.7	0.0	3.3	0.0	0.0	0.0	0.0	0.0	100.
13	6.7	3.3	3.3	6.7	10.0	3.3	10.0	10.0	30.0	13.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	100.
14	0.0	6.7	6.7	6.7	0.0	16.7	10.0	6.7	26.7	16.7	0.0	3.3	0.0	0.0	0.0	0.0	0.0	100.
15	0.0	6.7	3.3	10.0	3.3	3.3	10.0	13.3	33.3	13.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	100.
16	3.4	3.4	6.9	10.3	0.0	3.4	3.4	24.1	31.0	6.9	3.4	3.4	0.0	0.0	0.0	0.0	0.0	100.
17	0.0	0.0	10.3	3.4	6.9	3.4	3.4	20.7	34.5	10.3	0.0	0.0	0.0	0.0	3.4	3.4	0.0	100.
18	3.3	3.3	6.7	6.7	6.7	3.3	0.0	23.3	33.3	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.
19	6.9	0.0	6.9	10.3	6.9	0.0	0.0	27.6	31.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.
20	6.9	0.0	10.3	10.3	3.4	0.0	0.0	34.5	31.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	100.
21	10.0	0.0	6.7	3.3	6.7	3.3	3.3	23.3	26.7	10.0	0.0	3.3	0.0	0.0	0.0	3.3	0.0	100.
22	6.7	3.3	10.0	3.3	3.3	3.3	3.3	16.7	33.3	6.7	3.3	0.0	3.3	0.0	0.0	3.3	0.0	100.
23	6.9	6.9	3.4	3.4	3.4	6.9	3.4	13.8	24.1	13.8	3.4	0.0	0.0	0.0	3.4	6.9	0.0	100.
24	3.4	3.4	3.4	10.3	3.4	3.4	6.9	13.8	27.6	10.3	3.4	0.0	3.4	0.0	3.4	3.4	0.0	100.
ALL	6.4	3.5	4.7	5.8	4.2	5.0	6.2	15.9	29.2	10.8	3.0	1.4	0.6	0.6	1.1	1.6	0.1	100.

NUMBER OF OBS = 706

NPPD-COOPER STATION 10-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.1	3.4	3.4	2.2	3.4	6.7	11.2	12.4	18.0	7.9	2.2	0.0	4.5	4.5	3.4	5.6	1.1	100.
2	7.9	5.6	3.4	2.2	3.4	5.6	7.9	12.4	23.6	4.5	1.1	1.1	2.2	5.6	5.6	5.6	2.2	100.
3	7.9	7.9	5.6	2.2	4.5	4.5	9.0	13.5	15.7	9.0	2.2	1.1	3.4	3.4	0.0	9.0	1.1	100.
4	11.2	3.4	4.5	3.4	5.6	4.5	6.7	13.5	21.3	4.5	6.7	1.1	3.4	1.1	1.1	5.6	2.2	100.
5	12.4	3.4	1.1	4.5	4.5	3.4	11.2	14.6	16.9	3.4	4.5	1.1	3.4	3.4	5.6	5.6	1.1	100.
6	12.4	2.2	1.1	7.9	3.4	5.6	12.4	12.4	14.6	7.9	4.5	0.0	2.2	3.4	3.4	5.6	1.1	100.
7	9.0	7.9	0.0	3.4	5.6	4.5	14.6	18.0	13.5	5.6	3.4	0.0	1.1	3.4	3.4	6.7	0.0	100.
8	6.8	8.0	0.0	1.1	3.4	3.4	19.3	11.4	20.5	3.4	6.8	1.1	0.0	3.4	3.4	6.8	1.1	100.
9	9.0	6.7	1.1	2.2	2.2	7.9	6.7	15.7	18.0	10.1	5.6	3.4	0.0	1.1	4.5	5.6	0.0	100.
10	9.0	7.9	2.2	2.2	5.6	3.4	9.0	7.9	21.3	11.2	2.2	3.4	1.1	4.5	2.2	6.7	0.0	100.
11	6.8	6.8	4.5	5.7	0.0	5.7	11.4	5.7	23.9	9.1	2.3	4.5	0.0	3.4	5.7	4.5	0.0	100.
12	9.0	6.7	5.6	6.7	2.2	2.2	7.9	6.7	23.6	9.0	3.4	2.2	2.2	2.2	3.4	6.7	0.0	100.
13	10.0	4.4	4.4	3.3	4.4	2.2	5.6	11.1	23.3	11.1	1.1	2.2	3.3	3.3	3.3	6.7	0.0	100.
14	5.6	6.7	4.4	2.2	1.1	7.8	5.6	8.9	22.2	13.3	0.0	3.3	1.1	3.3	5.6	8.9	0.0	100.
15	6.7	5.6	1.1	5.6	2.2	2.2	5.6	12.4	24.7	10.1	0.0	3.4	1.1	4.5	7.9	6.7	0.0	100.
16	5.7	5.7	3.4	4.5	2.3	1.1	6.8	14.8	23.9	5.7	2.3	2.3	2.3	5.7	5.7	8.0	0.0	100.
17	4.5	5.6	4.5	3.4	3.4	2.2	4.5	12.4	24.7	9.0	3.4	1.1	2.2	1.1	6.7	11.2	0.0	100.
18	5.6	8.9	2.2	3.3	3.3	2.2	1.1	18.9	21.1	10.0	2.2	2.2	3.3	2.2	10.0	3.3	0.0	100.
19	6.7	6.7	2.2	5.6	2.2	1.1	4.5	20.2	19.1	9.0	1.1	1.1	4.5	1.1	6.7	7.9	0.0	100.
20	10.1	3.4	6.7	4.5	2.2	0.0	4.5	20.2	22.5	4.5	3.4	1.1	2.2	2.2	6.7	5.6	0.0	100.
21	12.2	3.3	4.4	2.2	4.4	1.1	5.6	20.0	18.9	5.6	2.2	1.1	4.4	2.2	6.7	5.6	0.0	100.
22	8.9	3.3	7.8	2.2	2.2	3.3	5.6	15.6	22.2	4.4	1.1	0.0	5.6	2.2	3.3	11.1	1.1	100.
23	10.1	6.7	4.5	5.6	3.4	4.5	6.7	9.0	21.3	7.9	2.2	0.0	4.5	2.2	1.1	9.0	1.1	100.
24	7.9	4.5	3.4	4.5	4.5	5.6	7.9	10.1	21.3	6.7	1.1	1.1	5.6	1.1	4.5	9.0	1.1	100.
ALL	8.6	5.6	3.4	3.8	3.3	3.8	8.0	13.2	20.7	7.6	2.7	1.6	2.7	2.9	4.6	7.0	0.6	100.

NUMBER OF OBS = 2138

NPPD-COOPER STATION 10-M WIND DIRECTION JAN-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	9.5	3.4	3.9	3.4	2.2	3.9	8.4	10.1	16.2	9.5	1.7	2.2	2.8	6.1	6.1	10.1	0.6	100.
2	6.7	6.1	2.8	2.2	3.9	4.4	5.6	11.7	17.2	6.1	1.7	3.3	2.2	6.1	8.9	10.0	1.1	100.
3	7.2	6.1	5.0	1.1	3.3	3.9	6.7	12.2	14.4	8.3	2.2	2.2	5.0	5.6	6.1	10.0	0.6	100.
4	9.5	6.1	2.8	2.2	5.0	2.8	7.8	10.1	17.3	4.5	6.7	1.7	3.9	3.4	8.4	6.7	1.1	100.
5	9.4	5.0	2.8	3.3	2.8	2.8	8.3	16.7	12.2	4.4	5.6	1.7	3.9	5.6	7.8	7.2	0.6	100.
6	10.0	2.2	2.8	4.4	3.3	4.4	8.9	12.8	14.4	7.2	3.3	0.6	4.4	5.0	7.8	7.8	0.6	100.
7	11.7	3.9	0.6	2.8	3.4	2.8	12.3	14.5	11.2	4.5	4.5	3.9	2.2	5.0	8.9	7.8	0.0	100.
8	8.9	6.1	1.1	1.1	3.4	1.7	14.5	9.5	14.0	4.5	6.7	2.8	2.8	7.3	7.3	7.8	0.6	100.
9	8.4	6.1	1.1	2.2	1.7	4.5	8.4	12.3	15.6	7.8	5.0	3.4	2.2	2.8	9.5	8.9	0.0	100.
10	11.7	5.0	1.1	2.2	3.4	3.4	7.3	8.4	18.4	8.4	2.8	3.9	1.1	6.1	6.1	10.6	0.0	100.
11	7.3	6.7	2.2	3.9	1.1	5.6	6.2	5.6	19.7	7.9	5.1	3.4	1.1	6.2	7.9	10.1	0.0	100.
12	9.5	6.1	4.5	4.5	1.7	2.8	5.0	7.8	17.3	9.5	4.5	2.8	2.8	5.0	7.8	8.4	0.0	100.
13	9.4	3.3	3.3	3.3	3.3	1.7	4.4	8.3	16.7	13.9	1.7	3.9	3.3	4.4	10.0	8.9	0.0	100.
14	6.6	5.0	2.8	2.2	0.6	5.0	6.1	5.0	16.6	12.7	2.8	4.4	2.2	6.6	8.3	13.3	0.0	100.
15	6.1	3.9	1.1	3.9	1.1	2.8	6.1	7.8	17.3	10.1	1.7	2.8	4.5	7.8	10.6	12.3	0.0	100.
16	7.3	3.4	2.2	3.4	1.1	2.2	6.2	9.0	15.7	9.6	2.2	2.8	3.4	6.7	15.2	9.6	0.0	100.
17	5.6	3.4	3.4	2.2	2.2	2.2	5.6	8.9	17.3	8.9	4.5	1.7	2.2	6.7	14.0	11.2	0.0	100.
18	8.3	5.0	2.2	3.3	2.8	1.7	5.0	11.0	15.5	10.5	3.3	2.8	1.7	5.5	15.5	6.1	0.0	100.
19	7.3	5.6	2.2	3.9	2.8	0.6	7.3	12.8	16.8	8.4	1.7	1.1	3.9	5.6	10.6	9.5	0.0	100.
20	9.4	5.6	3.3	3.3	2.2	1.1	5.6	13.3	17.2	4.4	4.4	1.1	3.3	6.1	10.0	9.4	0.0	100.
21	12.7	2.8	3.3	1.7	3.3	1.7	5.0	14.4	16.6	6.1	5.0	1.1	3.9	5.0	9.9	7.7	0.0	100.
22	8.3	3.9	5.5	1.1	3.3	3.3	5.5	12.2	17.1	7.2	1.1	0.6	5.5	3.3	8.3	12.7	1.1	100.
23	10.6	5.0	3.4	3.9	2.2	4.5	7.3	10.6	15.6	7.8	3.9	0.0	5.0	2.8	7.3	8.9	1.1	100.
24	7.2	5.6	2.2	3.9	2.8	4.4	7.8	10.0	17.2	7.8	1.1	2.8	4.4	3.3	7.2	11.7	0.6	100.
ALL	8.7	4.8	2.7	2.9	2.6	3.1	7.1	10.6	16.2	7.9	3.5	2.4	3.2	5.3	9.1	9.4	0.3	100.

NUMBER OF OBS = 4309

Wind Direction Frequencies,
100 Meter Level

NPPD-COOPER STATION 100-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JANUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	0.0	3.2	0.0	0.0	6.5	0.0	3.2	6.5	6.5	22.6	0.0	9.7	6.5	3.2	16.1	16.1	0.0	100.
2	0.0	0.0	3.2	0.0	6.5	3.2	0.0	9.7	3.2	19.4	6.5	3.2	9.7	6.5	12.9	16.1	0.0	100.
3	3.2	0.0	0.0	3.2	3.2	6.5	0.0	6.5	9.7	9.7	16.1	0.0	6.5	6.5	16.1	12.9	0.0	100.
4	3.2	0.0	0.0	0.0	6.5	6.5	0.0	6.5	9.7	12.9	6.5	6.5	6.5	9.7	16.1	9.7	0.0	100.
5	3.2	3.2	0.0	0.0	6.5	6.5	0.0	6.5	12.9	6.5	6.5	3.2	12.9	12.9	6.5	12.9	0.0	100.
6	3.2	3.2	0.0	3.2	0.0	9.7	0.0	3.2	12.9	12.9	6.5	0.0	12.9	6.5	16.1	9.7	0.0	100.
7	6.5	0.0	0.0	0.0	3.2	9.7	0.0	6.5	9.7	12.9	6.5	0.0	9.7	6.5	16.1	12.9	0.0	100.
8	9.7	0.0	0.0	0.0	9.7	3.2	3.2	0.0	16.1	9.7	6.5	0.0	6.5	9.7	16.1	9.7	0.0	100.
9	3.2	3.2	0.0	0.0	6.5	3.2	6.5	0.0	16.1	6.5	6.5	3.2	3.2	12.9	16.1	12.9	0.0	100.
10	9.7	0.0	0.0	3.2	0.0	6.5	3.2	3.2	12.9	9.7	6.5	3.2	3.2	9.7	16.1	12.9	0.0	100.
11	16.1	0.0	0.0	3.2	3.2	3.2	3.2	0.0	16.1	9.7	3.2	6.5	0.0	12.9	12.9	9.7	0.0	100.
12	9.7	0.0	3.2	0.0	3.2	3.2	3.2	3.2	6.5	19.4	6.5	6.5	0.0	9.7	16.1	9.7	0.0	100.
13	6.5	0.0	0.0	3.2	3.2	0.0	6.5	3.2	3.2	19.4	9.7	3.2	3.2	16.1	12.9	9.7	0.0	100.
14	6.5	6.5	0.0	3.2	0.0	0.0	6.5	0.0	9.7	12.9	12.9	3.2	0.0	12.9	16.1	9.7	0.0	100.
15	9.7	0.0	0.0	3.2	0.0	3.2	0.0	3.2	12.9	16.1	6.5	3.2	0.0	12.9	16.1	12.9	0.0	100.
16	6.5	0.0	0.0	3.2	0.0	3.2	0.0	6.5	6.5	19.4	6.5	0.0	3.2	12.9	19.4	12.9	0.0	100.
17	10.0	0.0	0.0	0.0	3.3	3.3	0.0	6.7	3.3	23.3	10.0	0.0	6.7	10.0	16.7	6.7	0.0	100.
18	6.5	3.2	0.0	0.0	9.7	0.0	3.2	3.2	12.9	12.9	9.7	0.0	6.5	3.2	22.6	6.5	0.0	100.
19	9.7	0.0	0.0	3.2	3.2	3.2	6.5	3.2	12.9	16.1	6.5	0.0	6.5	6.5	16.1	6.5	0.0	100.
20	9.7	0.0	0.0	3.2	6.5	0.0	3.2	3.2	16.1	16.1	3.2	3.2	3.2	6.5	19.4	6.5	0.0	100.
21	6.5	3.2	0.0	0.0	6.5	0.0	6.5	0.0	19.4	16.1	3.2	3.2	0.0	9.7	19.4	6.5	0.0	100.
22	3.2	3.2	0.0	0.0	6.5	0.0	3.2	3.2	12.9	19.4	6.5	0.0	3.2	9.7	16.1	12.9	0.0	100.
23	6.5	3.2	0.0	0.0	3.2	3.2	3.2	3.2	9.7	22.6	3.2	0.0	6.5	12.9	16.1	6.5	0.0	100.
24	3.2	0.0	3.2	0.0	6.5	0.0	3.2	0.0	12.9	22.6	3.2	3.2	6.5	9.7	12.9	12.9	0.0	100.
ALL	6.3	1.3	0.4	1.3	4.3	3.2	2.7	3.6	11.0	15.3	6.6	2.6	5.1	9.6	15.9	10.6	0.0	100.

NUMBER OF OBS = 743

NPPD-COOPER STATION 100-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

FEBRUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	14.3	0.0	0.0	3.6	7.1	0.0	0.0	17.9	3.6	17.9	0.0	0.0	3.6	3.6	10.7	17.9	0.0	100.
2	10.3	3.4	3.4	0.0	3.4	0.0	0.0	13.8	3.4	17.2	3.4	0.0	3.4	0.0	17.2	20.7	0.0	100.
3	6.9	6.9	3.4	0.0	0.0	3.4	0.0	10.3	6.9	10.3	6.9	3.4	3.4	0.0	20.7	17.2	0.0	100.
4	6.9	3.4	6.9	0.0	0.0	0.0	6.9	6.9	6.9	3.4	13.8	0.0	0.0	10.3	13.8	20.7	0.0	100.
5	6.9	3.4	0.0	6.9	0.0	0.0	6.9	10.3	3.4	3.4	10.3	3.4	3.4	3.4	17.2	20.7	0.0	100.
6	10.3	3.4	0.0	0.0	3.4	0.0	3.4	10.3	10.3	0.0	6.9	3.4	6.9	6.9	17.2	17.2	0.0	100.
7	13.8	0.0	3.4	0.0	0.0	0.0	0.0	13.8	10.3	0.0	6.9	0.0	3.4	6.9	17.2	24.1	0.0	100.
8	10.3	3.4	0.0	0.0	0.0	0.0	3.4	6.9	10.3	0.0	3.4	3.4	0.0	13.8	13.8	31.0	0.0	100.
9	13.8	0.0	0.0	0.0	0.0	0.0	3.4	3.4	10.3	3.4	0.0	6.9	3.4	13.8	6.9	34.5	0.0	100.
10	17.2	0.0	0.0	0.0	0.0	0.0	0.0	6.9	6.9	6.9	6.9	6.9	0.0	10.3	6.9	31.0	0.0	100.
11	17.9	3.6	0.0	0.0	0.0	0.0	3.6	7.1	7.1	7.1	7.1	10.7	0.0	14.3	3.6	17.9	0.0	100.
12	10.7	3.6	0.0	0.0	0.0	0.0	7.1	7.1	7.1	7.1	0.0	10.7	0.0	17.9	7.1	21.4	0.0	100.
13	14.3	0.0	0.0	0.0	0.0	0.0	3.6	7.1	7.1	3.6	10.7	3.6	3.6	14.3	10.7	21.4	0.0	100.
14	13.8	0.0	0.0	0.0	0.0	0.0	3.4	3.4	13.8	3.4	6.9	3.4	3.4	17.2	6.9	24.1	0.0	100.
15	13.8	0.0	3.4	0.0	0.0	0.0	6.9	3.4	6.9	0.0	10.3	0.0	13.8	13.8	13.8	13.8	0.0	100.
16	13.8	0.0	3.4	0.0	0.0	3.4	6.9	0.0	6.9	3.4	3.4	3.4	10.3	6.9	31.0	6.9	0.0	100.
17	17.2	0.0	0.0	3.4	0.0	0.0	10.3	3.4	6.9	3.4	3.4	3.4	6.9	6.9	24.1	10.3	0.0	100.
18	20.7	0.0	3.4	0.0	0.0	3.4	10.3	3.4	6.9	0.0	3.4	10.3	0.0	6.9	24.1	6.9	0.0	100.
19	20.7	6.9	0.0	0.0	0.0	0.0	13.8	3.4	6.9	3.4	6.9	3.4	0.0	6.9	20.7	6.9	0.0	100.
20	20.7	3.4	0.0	3.4	0.0	0.0	10.3	10.3	3.4	6.9	3.4	0.0	6.9	6.9	17.2	6.9	0.0	100.
21	17.2	3.4	0.0	3.4	3.4	0.0	6.9	6.9	10.3	10.3	0.0	0.0	3.4	6.9	17.2	10.3	0.0	100.
22	13.8	0.0	0.0	3.4	0.0	10.3	6.9	6.9	10.3	6.9	3.4	0.0	6.9	3.4	6.9	20.7	0.0	100.
23	10.3	0.0	0.0	3.4	6.9	3.4	6.9	10.3	10.3	6.9	3.4	0.0	3.4	6.9	10.3	17.2	0.0	100.
24	17.2	0.0	0.0	3.4	0.0	6.9	3.4	13.8	10.3	10.3	3.4	0.0	0.0	10.3	10.3	10.3	0.0	100.
ALL	13.9	1.9	1.2	1.3	1.0	1.3	5.2	7.8	7.8	5.6	5.2	3.2	3.6	8.7	14.5	17.9	0.0	100.

NUMBER OF OBS = 692

NPPD-COOPER STATION 100-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MARCH

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.5	6.5	6.5	3.2	0.0	3.2	9.7	9.7	9.7	3.2	3.2	6.5	3.2	3.2	9.7	16.1	0.0	100.
2	0.0	6.5	9.7	3.2	0.0	3.2	9.7	9.7	9.7	3.2	3.2	6.5	3.2	6.5	9.7	16.1	0.0	100.
3	0.0	9.7	3.2	3.2	3.2	3.2	3.2	12.9	12.9	3.2	3.2	6.5	3.2	6.5	12.9	12.9	0.0	100.
4	3.3	3.3	6.7	6.7	0.0	3.3	6.7	16.7	6.7	3.3	0.0	10.0	6.7	0.0	13.3	13.3	0.0	100.
5	6.5	6.5	3.2	3.2	3.2	3.2	9.7	9.7	9.7	3.2	0.0	9.7	6.5	3.2	12.9	9.7	0.0	100.
6	9.7	3.2	3.2	3.2	3.2	3.2	12.9	6.5	12.9	0.0	6.5	3.2	6.5	3.2	12.9	9.7	0.0	100.
7	10.0	3.3	0.0	3.3	6.7	0.0	13.3	6.7	13.3	0.0	0.0	6.7	10.0	3.3	16.7	6.7	0.0	100.
8	6.5	6.5	0.0	3.2	6.5	6.5	6.5	9.7	9.7	3.2	3.2	6.5	3.2	3.2	19.4	6.5	0.0	100.
9	10.0	6.7	0.0	3.3	3.3	3.3	3.3	16.7	10.0	0.0	6.7	6.7	3.3	6.7	16.7	3.3	0.0	100.
10	13.3	3.3	0.0	3.3	0.0	3.3	10.0	6.7	13.3	6.7	3.3	3.3	3.3	10.0	13.3	6.7	0.0	100.
11	12.9	6.5	0.0	3.2	3.2	6.5	3.2	6.5	12.9	9.7	3.2	0.0	6.5	3.2	19.4	3.2	0.0	100.
12	12.9	3.2	3.2	3.2	3.2	3.2	3.2	9.7	12.9	9.7	0.0	3.2	6.5	0.0	19.4	6.5	0.0	100.
13	12.9	0.0	3.2	6.5	0.0	6.5	0.0	6.5	9.7	19.4	0.0	3.2	6.5	0.0	19.4	6.5	0.0	100.
14	9.7	3.2	0.0	3.2	3.2	3.2	9.7	0.0	9.7	12.9	0.0	3.2	9.7	3.2	16.1	12.9	0.0	100.
15	3.3	3.3	0.0	3.3	0.0	6.7	6.7	3.3	10.0	6.7	6.7	3.3	6.7	6.7	13.3	20.0	0.0	100.
16	3.3	3.3	0.0	3.3	0.0	6.7	6.7	3.3	6.7	16.7	0.0	3.3	3.3	3.3	23.3	16.7	0.0	100.
17	0.0	3.2	3.2	3.2	0.0	3.2	9.7	9.7	3.2	9.7	3.2	3.2	3.2	6.5	25.8	12.9	0.0	100.
18	3.2	3.2	3.2	3.2	0.0	3.2	12.9	6.5	3.2	6.5	6.5	0.0	0.0	12.9	22.6	12.9	0.0	100.
19	3.3	6.7	3.3	3.3	6.7	3.3	10.0	3.3	6.7	6.7	6.7	0.0	0.0	16.7	13.3	20.0	0.0	100.
20	0.0	6.5	6.5	3.2	3.2	6.5	9.7	3.2	9.7	0.0	6.5	0.0	3.2	16.1	12.9	12.9	0.0	100.
21	6.5	6.5	9.7	3.2	0.0	6.5	9.7	3.2	6.5	3.2	0.0	9.7	6.5	9.7	9.7	9.7	0.0	100.
22	3.2	6.5	9.7	3.2	0.0	6.5	12.9	3.2	6.5	3.2	3.2	3.2	6.5	6.5	16.1	9.7	0.0	100.
23	6.7	3.3	6.7	3.3	3.3	0.0	13.3	16.7	0.0	0.0	3.3	10.0	6.7	3.3	6.7	16.7	0.0	100.
24	9.7	6.5	3.2	6.5	0.0	3.2	9.7	16.1	3.2	0.0	0.0	6.5	6.5	9.7	9.7	9.7	0.0	100.
ALL	6.4	4.9	3.5	3.7	2.0	4.1	8.4	8.2	8.7	5.4	2.9	4.8	5.0	6.0	15.2	10.9	0.0	100.

NUMBER OF OBS = 736

NPPD-COOPER STATION 100-M WIND DIRECTION JAN-MAR 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

	WIND DIRECTION																	
HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
2	6.7	3.3	2.2	2.2	4.4	1.1	4.4	11.1	6.7	14.4	1.1	5.6	4.4	3.3	12.2	16.7	0.0	100.
3	3.3	3.3	5.5	1.1	3.3	2.2	3.3	11.0	5.5	13.2	4.4	3.3	5.5	4.4	13.2	17.6	0.0	100.
4	3.3	5.5	2.2	2.2	2.2	4.4	1.1	9.9	9.9	7.7	8.8	3.3	4.4	4.4	16.	.3	0.0	100.
5	4.4	2.2	4.4	2.2	2.2	3.3	4.4	10.0	7.8	6.7	6.7	5.6	4.4	6.7	14.4	14.4	0.0	100.
6	5.5	4.4	1.1	3.3	3.3	3.3	5.5	8.8	8.8	4.4	5.5	5.5	7.7	6.6	12.1	14.3	0.0	100.
7	7.7	3.3	1.1	2.2	2.2	4.4	5.5	6.6	12.1	4.4	6.6	2.2	8.8	5.5	15.4	12.1	0.0	100.
8	10.0	1.1	1.1	1.1	3.3	3.3	4.4	8.9	11.1	4.4	4.4	2.2	7.8	5.6	16.7	14.4	0.0	100.
9	8.8	3.3	0.0	1.1	5.5	3.3	4.4	5.5	12.1	4.4	4.4	3.3	3.3	8.8	16.5	15.4	0.0	100.
10	8.9	3.3	0.0	1.1	3.3	2.2	4.4	6.7	12.2	3.3	4.4	5.6	3.3	11.1	13.3	16.7	0.0	100.
11	13.3	1.1	0.0	2.2	0.0	3.3	4.4	5.6	11.1	7.8	5.6	4.4	2.2	10.0	12.2	16.7	0.0	100.
12	15.6	3.3	0.0	2.2	2.2	3.3	3.3	4.4	12.2	8.9	4.4	5.6	2.2	10.0	12.2	10.0	0.0	100.
13	11.1	2.2	2.2	1.1	2.2	2.2	4.4	6.7	8.9	12.2	2.2	6.7	2.2	8.9	14.4	12.2	0.0	100.
14	11.1	0.0	1.1	3.3	1.1	2.2	3.3	5.6	6.7	14.4	6.7	3.3	4.4	10.0	14.4	12.2	0.0	100.
15	9.9	3.3	0.0	2.2	1.1	1.1	6.6	1.1	11.0	9.9	6.6	3.3	4.4	11.0	13.2	15.4	0.0	100.
16	8.9	1.1	1.1	2.2	0.0	3.3	4.4	3.3	10.0	7.8	7.8	2.2	6.7	11.1	14.4	15.6	0.0	100.
17	7.8	1.1	1.1	2.2	0.0	4.4	4.4	3.3	6.7	13.3	3.3	2.2	5.6	7.8	24.4	12.2	0.0	100.
18	8.9	1.1	1.1	2.2	1.1	2.2	6.7	6.7	4.4	12.2	5.6	2.2	5.6	7.8	22.2	10.0	0.0	100.
19	9.9	2.2	2.2	1.1	3.3	2.2	8.8	4.4	7.7	6.6	6.6	3.3	2.2	7.7	23.1	8.8	0.0	100.
20	11.1	4.4	1.1	2.2	3.3	2.2	10.0	3.3	8.9	8.9	6.7	1.1	2.2	10.0	16.7	7.8	0.0	100.
21	9.9	3.3	2.2	3.3	3.3	2.2	7.7	5.5	9.9	7.7	4.4	1.1	4.4	9.9	16.5	8.8	0.0	100.
22	9.9	4.4	3.3	2.2	3.3	2.2	7.7	3.3	12.1	9.9	1.1	4.4	3.3	8.8	15.4	8.8	0.0	100.
23	6.6	3.3	3.3	2.2	2.2	5.5	7.7	4.4	9.9	9.9	4.4	1.1	5.5	6.6	13.2	14.3	0.0	100.
24	7.8	2.2	2.2	2.2	4.4	2.2	7.8	10.0	6.7	10.0	3.3	3.3	5.6	7.8	11.1	13.3	0.0	100.
ALL	9.9	2.2	2.2	3.3	2.2	3.3	5.5	9.9	8.8	11.0	2.2	3.3	4.4	9.9	11.0	11.0	0.0	100.
	8.8	2.7	1.7	2.1	2.5	2.9	5.4	6.5	9.2	8.9	4.9	3.5	4.6	8.1	15.2	13.0	0.0	100.

NUMBER OF OBS = 2171

NPPD-COOPER STATION 100-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

APRIL

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	13.8	13.8	3.4	3.4	13.8	6.9	0.0	3.4	17.2	10.3	0.0	0.0	6.9	3.4	3.4	0.0	0.0	100.
2	13.8	6.9	0.0	3.4	3.4	10.3	6.9	6.9	10.3	13.8	0.0	3.4	0.0	6.9	10.3	3.4	0.0	100.
3	17.2	3.4	0.0	3.4	3.4	3.4	13.8	3.4	10.3	10.3	10.3	0.0	0.0	6.9	6.9	6.9	0.0	100.
4	20.7	0.0	3.4	3.4	3.4	3.4	10.3	3.4	6.9	13.8	6.9	3.4	3.4	6.9	3.4	6.9	0.0	100.
5	13.8	3.4	3.4	6.9	0.0	6.9	3.4	6.9	6.9	13.8	10.3	3.4	6.9	0.0	6.9	6.9	0.0	100.
6	13.8	3.4	0.0	10.3	0.0	6.9	6.9	3.4	0.0	13.8	17.2	0.0	3.4	6.9	6.9	6.9	0.0	100.
7	10.3	3.4	0.0	10.3	0.0	3.4	10.3	3.4	3.4	13.8	10.3	0.0	3.4	10.3	3.4	13.8	0.0	100.
8	14.3	3.6	3.6	0.0	7.1	3.6	7.1	7.1	3.6	14.3	10.7	0.0	7.1	3.6	3.6	10.7	0.0	100.
9	10.7	7.1	3.6	0.0	3.6	7.1	3.6	10.7	3.6	10.7	10.7	10.7	0.0	0.0	7.1	10.7	0.0	100.
10	10.3	10.3	3.4	0.0	6.9	0.0	6.9	6.9	10.3	10.3	3.4	10.3	3.4	3.4	3.4	10.3	0.0	100.
11	6.9	13.8	0.0	3.4	6.9	3.4	3.4	6.9	13.8	3.4	6.9	10.3	0.0	6.9	3.4	10.3	0.0	100.
12	13.8	6.9	3.4	6.9	0.0	0.0	3.4	6.9	13.8	3.4	10.3	3.4	3.4	3.4	10.3	10.3	0.0	100.
13	17.2	10.3	3.4	0.0	3.4	0.0	3.4	6.9	17.2	10.3	3.4	3.4	3.4	3.4	3.4	10.3	0.0	100.
14	10.3	6.9	0.0	0.0	3.4	3.4	0.0	6.9	17.2	6.9	6.9	0.0	6.9	0.0	6.9	24.1	0.0	100.
15	17.2	6.9	0.0	0.0	3.4	0.0	0.0	6.9	20.7	10.3	0.0	6.9	0.0	3.4	10.3	13.8	0.0	100.
16	17.2	6.9	0.0	0.0	3.4	0.0	0.0	6.9	20.7	6.9	3.4	3.4	3.4	10.3	6.9	10.3	0.0	100.
17	17.2	3.4	3.4	3.4	0.0	0.0	3.4	6.9	17.2	10.3	3.4	3.4	3.4	3.4	10.3	10.3	0.0	100.
18	13.8	10.3	0.0	3.4	0.0	0.0	0.0	6.9	17.2	10.3	6.9	3.4	0.0	3.4	17.2	6.9	0.0	100.
19	6.9	10.3	3.4	3.4	0.0	0.0	3.4	10.3	10.3	13.8	3.4	0.0	6.9	0.0	10.3	17.2	0.0	100.
20	13.8	6.9	6.9	3.4	0.0	0.0	3.4	10.3	17.2	6.9	3.4	3.4	3.4	0.0	13.8	6.9	0.0	100.
21	27.6	3.4	10.3	0.0	0.0	0.0	3.4	13.8	20.7	0.0	3.4	0.0	3.4	10.3	0.0	3.4	0.0	100.
22	20.7	10.3	3.4	10.3	3.4	0.0	0.0	17.2	17.2	3.4	0.0	0.0	6.9	6.9	0.0	0.0	0.0	100.
23	13.8	10.3	10.3	10.3	0.0	3.4	3.4	3.4	27.6	3.4	0.0	0.0	3.4	10.3	0.0	0.0	0.0	100.
24	10.3	10.3	3.4	10.3	3.4	10.3	0.0	3.4	27.6	3.4	0.0	0.0	3.4	3.4	6.9	3.4	0.0	100.
ALL	14.4	7.2	2.9	4.0	2.9	3.0	4.0	7.1	13.8	9.1	5.5	2.9	3.5	4.8	6.5	8.5	0.0	100.

NUMBER OF OBS = 694

NPPD-COOPER STATION 100-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MAY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	9.7	0.0	3.2	3.2	0.0	9.7	9.7	12.9	25.8	0.0	0.0	6.5	3.2	6.5	3.2	6.5	0.0	100.
2	3.2	6.5	0.0	3.2	0.0	9.7	9.7	16.1	22.6	0.0	0.0	6.5	3.2	6.5	6.5	6.5	0.0	100.
3	0.0	3.2	3.2	3.2	3.2	9.7	9.7	19.4	16.1	3.2	0.0	3.2	3.2	6.5	9.7	6.5	0.0	100.
4	3.2	0.0	3.2	3.2	0.0	9.7	12.9	16.1	9.7	12.9	3.2	3.2	3.2	6.5	6.5	6.5	0.0	100.
5	3.2	0.0	3.2	0.0	3.2	9.7	9.7	19.4	16.1	6.5	3.2	0.0	0.0	6.5	9.7	9.7	0.0	100.
6	3.2	3.2	3.2	0.0	3.2	6.5	12.9	19.4	19.4	3.2	3.2	0.0	3.2	9.7	3.2	6.5	0.0	100.
7	9.7	6.5	0.0	0.0	0.0	3.2	25.8	12.9	19.4	3.2	0.0	3.2	3.2	6.5	6.5	0.0	0.0	100.
8	6.5	9.7	0.0	0.0	0.0	0.0	19.4	19.4	19.4	3.2	3.2	0.0	0.0	6.5	6.5	6.5	0.0	100.
9	6.5	6.5	3.2	0.0	0.0	3.2	16.1	16.1	12.9	9.7	0.0	3.2	3.2	6.5	3.2	9.7	0.0	100.
10	6.7	3.3	6.7	0.0	6.7	0.0	13.3	6.7	23.3	10.0	0.0	0.0	0.0	6.7	6.7	10.0	0.0	100.
11	10.3	3.4	6.9	0.0	3.4	0.0	13.8	6.9	24.1	10.3	0.0	0.0	0.0	3.4	17.2	0.0	0.0	100.
12	10.0	3.3	6.7	0.0	6.7	0.0	10.0	10.0	23.3	6.7	3.3	0.0	0.0	6.7	6.7	6.7	0.0	100.
13	6.5	3.2	3.2	3.2	3.2	0.0	3.2	19.4	19.4	9.7	0.0	0.0	6.5	6.5	9.7	6.5	0.0	100.
14	6.5	0.0	6.5	0.0	0.0	3.2	6.5	12.9	19.4	9.7	3.2	0.0	6.5	6.5	9.7	9.7	0.0	100.
15	3.3	3.3	0.0	6.7	0.0	3.3	3.3	20.0	16.7	10.0	0.0	0.0	6.7	6.7	10.0	10.0	0.0	100.
16	3.3	3.3	3.3	3.3	3.3	0.0	16.7	13.3	16.7	6.7	0.0	0.0	6.7	3.3	10.0	10.0	0.0	100.
17	0.0	6.5	6.5	0.0	3.2	3.2	6.5	12.9	22.6	3.2	6.5	0.0	6.5	3.2	12.9	6.5	0.0	100.
18	3.2	3.2	6.5	0.0	3.2	3.2	3.2	22.6	9.7	12.9	0.0	3.2	9.7	6.5	9.7	3.2	0.0	100.
19	6.5	6.5	0.0	3.2	0.0	3.2	9.7	16.1	19.4	6.5	0.0	0.0	9.7	6.5	12.9	0.0	0.0	100.
20	6.5	6.5	6.5	0.0	0.0	3.2	9.7	16.1	19.4	3.2	6.5	3.2	3.2	6.5	3.2	6.5	0.0	100.
21	3.2	6.5	6.5	0.0	3.2	3.2	6.5	19.4	16.1	6.5	3.2	3.2	6.5	6.5	6.5	3.2	0.0	100.
22	9.7	3.2	3.2	0.0	6.5	6.5	6.5	22.6	12.9	6.5	0.0	3.2	3.2	6.5	3.2	6.5	0.0	100.
23	6.5	0.0	0.0	6.5	6.5	6.5	6.5	16.1	19.4	3.2	3.2	0.0	6.5	6.5	3.2	9.7	0.0	100.
24	6.5	0.0	3.2	0.0	3.2	12.9	6.5	12.9	22.6	3.2	0.0	3.2	3.2	6.5	6.5	9.7	0.0	100.
ALL	5.6	3.7	3.5	1.5	2.4	4.6	10.3	15.9	18.6	6.2	1.6	1.8	4.1	6.2	7.6	6.5	0.0	100.

NUMBER OF OBS = 738

NPPD-COOPER STATION 100-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JUNE

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	0.0	6.9	0.0	0.0	6.9	6.9	10.3	6.9	37.9	10.3	6.9	3.4	0.0	3.4	0.0	0.0	0.0	100.
2	0.0	6.9	0.0	0.0	6.9	10.3	3.4	6.9	41.4	3.4	3.4	10.3	0.0	0.0	0.0	6.9	0.0	100.
3	0.0	6.9	0.0	3.4	6.9	6.9	6.9	3.4	44.8	0.0	6.9	3.4	0.0	3.4	0.0	6.9	0.0	100.
4	6.9	6.9	0.0	6.9	6.9	6.9	3.4	6.9	44.8	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0	100.
5	3.4	6.9	0.0	3.4	6.9	10.3	6.9	10.3	31.0	10.3	6.9	3.4	0.0	0.0	0.0	0.0	0.0	100.
6	3.4	0.0	6.9	3.4	3.4	10.3	6.9	17.2	31.0	6.9	6.9	0.0	3.4	0.0	0.0	0.0	0.0	100.
7	3.4	0.0	6.9	3.4	3.4	13.8	3.4	10.3	34.5	10.3	6.9	0.0	0.0	0.0	0.0	3.4	0.0	100.
8	6.9	0.0	6.9	3.4	3.4	3.4	17.2	6.9	27.6	13.8	3.4	6.9	0.0	0.0	0.0	0.0	0.0	100.
9	6.7	3.3	3.3	3.3	3.3	3.3	13.3	6.7	26.7	23.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	100.
10	6.7	3.3	3.3	3.3	3.3	3.3	13.3	6.7	30.0	13.3	6.7	3.3	0.0	3.3	0.0	0.0	0.0	100.
11	6.7	3.3	3.3	3.3	3.3	10.0	13.3	6.7	30.0	10.0	6.7	3.3	0.0	0.0	0.0	0.0	0.0	100.
12	3.3	3.3	6.7	10.0	6.7	6.7	6.7	3.3	33.3	13.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	100.
13	6.7	3.3	3.3	6.7	10.0	6.7	6.7	10.0	26.7	13.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	100.
14	0.0	6.7	6.7	6.7	0.0	10.0	13.3	10.0	26.7	16.7	0.0	0.0	3.3	0.0	0.0	0.0	0.0	100.
15	0.0	6.7	3.3	10.0	3.3	0.0	10.0	13.3	36.7	13.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	100.
16	3.4	3.4	3.4	6.9	6.9	3.4	0.0	20.7	34.5	10.3	3.4	3.4	0.0	0.0	0.0	0.0	0.0	100.
17	0.0	0.0	6.9	10.3	0.0	6.9	0.0	24.1	31.0	13.8	0.0	0.0	0.0	3.4	0.0	3.4	0.0	100.
18	6.7	0.0	3.3	10.0	3.3	6.7	0.0	16.7	40.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.
19	3.4	3.4	6.9	10.3	6.9	0.0	0.0	20.7	37.9	6.9	3.4	0.0	0.0	0.0	0.0	0.0	0.0	100.
20	3.4	3.4	0.0	13.8	10.3	0.0	0.0	20.7	41.4	3.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	100.
21	3.3	6.7	0.0	6.7	10.0	6.7	0.0	30.0	36.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.
22	3.3	6.7	0.0	3.3	10.0	6.7	3.3	20.0	43.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.
23	3.4	3.4	3.4	6.9	6.9	3.4	13.8	6.9	31.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.
24	0.0	6.9	0.0	6.9	3.4	6.9	13.8	13.8	27.6	10.3	0.0	6.9	3.4	0.0	0.0	0.0	0.0	100.
ALL	3.4	4.1	3.1	5.9	5.5	6.2	6.9	12.5	34.4	10.1	3.5	2.4	0.4	0.6	0.0	0.8	0.0	100.

NUMBER OF OBS = 706

NPPD-COOPER STATION 100-M WIND DIRECTION APR-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	7.9	6.7	2.2	2.2	6.7	7.9	6.7	7.9	27.0	6.7	2.2	3.4	3.4	4.5	2.2	2.2	0.0	100.
2	5.6	6.7	0.0	2.2	3.4	10.1	8.7	10.1	24.7	5.6	1.1	6.7	1.1	4.5	5.6	5.6	0.0	100.
3	5.6	4.5	1.1	3.4	4.5	6.7	10.1	9.0	23.6	4.5	5.6	2.2	1.1	5.6	5.6	6.7	0.0	100.
4	10.1	2.2	2.2	4.5	3.4	6.7	9.0	9.0	20.2	9.0	6.7	2.2	2.2	4.5	3.4	4.5	0.0	100.
5	6.7	3.4	2.2	3.4	3.4	9.0	6.7	12.4	18.0	10.1	6.7	2.2	2.2	2.2	5.6	5.6	0.0	100.
6	6.7	2.2	3.4	4.5	2.2	7.9	9.0	13.5	16.9	7.9	9.0	0.0	3.4	5.6	3.4	4.5	0.0	100.
7	7.9	3.4	2.2	4.5	1.1	6.7	13.5	9.0	19.1	9.0	5.6	1.1	2.2	5.6	3.4	5.6	0.0	100.
8	9.1	4.5	3.4	1.1	3.4	2.3	14.8	11.4	17.0	10.2	5.7	2.3	2.3	3.4	3.4	5.7	0.0	100.
9	7.9	5.6	3.4	1.1	2.2	4.5	11.2	11.2	14.6	14.6	4.5	5.6	1.1	2.2	3.4	6.7	0.0	100.
10	7.9	5.6	4.5	1.1	5.6	1.1	11.2	6.7	21.3	11.2	3.4	4.5	1.1	4.5	3.4	6.7	0.0	100.
11	8.0	6.8	3.4	2.3	4.5	4.5	10.2	6.8	22.7	8.0	4.5	4.5	0.0	3.4	6.8	3.4	0.0	100.
12	9.0	4.5	5.6	5.6	4.5	2.2	6.7	6.7	23.6	7.9	5.6	2.2	1.1	3.4	5.6	5.6	0.0	100.
13	10.0	5.6	3.3	3.3	5.6	2.2	4.4	12.2	21.1	11.1	2.2	2.2	3.3	3.3	4.4	5.6	0.0	100.
14	5.6	4.4	4.4	2.2	1.1	5.6	6.7	10.0	21.1	11.1	3.3	0.0	5.6	2.2	5.6	11.1	0.0	100.
15	6.7	5.6	1.1	5.6	2.2	1.1	4.5	13.5	24.7	11.2	0.0	3.4	2.2	3.4	6.7	7.9	0.0	100.
16	8.0	4.5	2.3	3.4	4.5	1.1	5.7	13.6	23.9	8.0	2.3	2.3	3.4	4.5	5.7	6.8	0.0	100.
17	5.6	3.4	5.6	4.5	1.1	3.4	3.4	14.6	23.6	9.0	3.4	1.1	3.4	3.4	7.9	6.7	0.0	100.
18	7.8	4.4	3.3	4.4	2.2	3.3	1.1	15.6	22.2	12.2	2.2	2.2	3.3	3.3	8.9	3.3	0.0	100.
19	5.6	6.7	3.4	5.6	2.2	1.1	4.5	15.7	22.5	9.0	2.2	0.0	5.6	2.2	7.9	5.6	0.0	100.
20	7.9	5.6	4.5	5.6	3.4	1.1	4.5	15.7	25.8	4.5	4.5	2.2	2.2	2.2	5.6	4.5	0.0	100.
21	11.1	5.6	5.6	2.2	4.4	3.3	3.3	21.1	24.4	2.2	2.2	1.1	3.3	5.6	2.2	2.2	0.0	100.
22	11.1	6.7	2.2	4.4	6.7	4.4	3.3	20.0	24.4	4.4	0.0	1.1	3.3	4.4	1.1	2.2	0.0	100.
23	7.9	4.5	4.5	7.9	4.5	4.5	7.9	9.0	25.8	9.0	1.1	0.0	3.4	5.6	1.1	3.4	0.0	100.
24	5.6	5.6	2.2	5.6	3.4	10.1	6.7	10.1	25.8	5.6	0.0	3.4	3.4	3.4	4.5	4.5	0.0	100.
ALL	7.7	5.0	3.2	3.8	3.6	4.6	7.2	11.9	22.3	8.4	3.5	2.3	2.7	3.9	4.7	5.3	0.0	100.

NUMBER OF OBS = 2138

NPPD-COOPER STATION 100-M WIND DIRECTION JAN-JUNE 1988
PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

	WIND DIRECTION																	
HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	7.3	5.0	2.2	2.2	5.6	4.5	5.6	9.5	16.8	10.6	1.7	4.5	3.9	3.9	7.3	9.5	0.0	100.
2	4.4	5.0	2.8	1.7	3.3	6.1	5.0	10.6	15.0	9.4	2.8	5.0	3.3	4.4	9.4	11.7	0.0	100.
3	4.4	5.0	1.7	2.8	3.3	5.6	5.6	9.4	16.7	6.1	7.2	2.8	2.8	5.0	11.1	10.6	0.0	100.
4	7.3	2.2	3.4	3.4	2.8	5.0	6.7	9.5	14.0	7.8	6.7	3.9	3.4	5.6	8.9	9.5	0.0	100.
5	6.1	3.9	1.7	3.3	3.3	6.1	6.1	10.6	13.3	7.2	6.1	3.9	5.0	4.4	8.9	10.0	0.0	100.
6	7.2	2.8	2.2	3.3	2.2	6.1	7.2	10.0	14.4	6.1	7.8	1.1	6.1	5.6	9.4	8.3	0.0	100.
7	8.9	2.2	1.7	2.8	2.2	5.0	8.9	8.9	15.1	6.7	5.0	1.7	5.0	5.6	10.1	10.1	0.0	100.
8	8.9	3.9	1.7	1.1	4.5	2.8	9.5	8.4	14.5	7.3	5.0	2.8	2.8	6.1	10.1	10.6	0.0	100.
9	8.4	4.5	1.7	1.1	2.8	3.4	7.8	8.9	13.4	8.9	4.5	5.6	2.2	6.7	8.4	11.7	0.0	100.
10	10.6	3.4	2.2	1.7	2.8	2.2	7.8	6.1	16.2	9.5	4.5	4.5	1.7	7.3	7.8	11.7	0.0	100.
11	11.8	5.1	1.7	2.2	3.4	3.9	6.7	5.6	17.4	8.4	4.5	5.1	1.1	6.7	9.6	6.7	0.0	100.
12	10.1	3.4	3.9	3.4	3.4	2.2	5.6	6.7	16.2	10.1	3.9	4.5	1.7	6.1	10.1	8.9	0.0	100.
13	10.6	2.8	2.2	3.3	3.3	2.2	3.9	8.9	13.9	12.8	4.4	2.8	3.9	6.7	9.4	8.9	0.0	100.
14	7.7	3.9	2.2	2.2	1.1	3.3	6.6	5.5	16.0	10.5	5.0	1.7	5.0	6.6	9.4	13.3	0.0	100.
15	7.8	3.4	1.1	3.9	1.1	2.2	4.5	8.4	17.3	9.5	3.9	2.8	4.5	7.3	10.6	11.7	0.0	100.
16	7.9	2.8	1.7	2.8	2.2	2.8	5.1	8.4	15.2	10.7	2.8	2.2	4.5	6.2	15.2	9.6	0.0	100.
17	7.3	2.2	3.4	3.4	1.1	2.8	5.0	10.6	14.0	10.6	4.5	1.7	4.5	5.6	15.1	8.4	0.0	100.
18	8.8	3.3	2.8	2.8	2.8	2.8	5.0	9.9	14.9	9.4	4.4	2.8	2.8	5.5	16.0	6.1	0.0	100.
19	8.4	5.6	2.2	3.9	2.8	1.7	7.3	9.5	15.6	8.9	4.5	0.6	3.9	6.1	12.3	6.7	0.0	100.
20	8.9	4.4	3.3	4.4	3.3	1.7	6.1	10.6	17.8	6.1	4.4	1.7	3.3	6.1	11.1	6.7	0.0	100.
21	10.5	5.0	4.4	2.2	3.9	2.8	5.5	12.2	18.2	6.1	1.7	2.8	3.3	7.2	8.8	5.5	0.0	100.
22	8.8	5.0	2.8	3.3	4.4	5.0	5.5	12.2	17.1	7.2	2.2	1.1	4.4	5.5	7.2	8.3	0.0	100.
23	7.8	3.4	3.4	5.0	4.5	3.4	7.8	9.5	16.2	9.5	2.2	1.7	4.5	6.7	6.1	8.4	0.0	100.
24	7.8	3.9	2.2	4.4	2.8	6.7	6.1	10.0	17.2	8.3	1.1	3.3	3.9	6.7	7.8	7.8	0.0	100.
ALL	8.2	3.8	2.4	2.9	3.0	3.8	6.3	9.2	15.7	8.7	4.2	2.9	3.6	6.0	10.0	9.2	0.0	100.

NUMBER OF OBS = 4309

Precipitation

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	1	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	19	0.00	0.04	0.02	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
88	1	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	1	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

MONTH OF JANUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 3
TOTAL DAYS WITH PRECIPITATION - 1
TOTAL AMOUNT OF PRECIPITATION - 0.09 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.04 INCHES
MAXIMUM DAILY PRECIPITATION - 0.09 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 2 - 0.04 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 2 - 0.09 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 2 - 0.09 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 2 - 0.09 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 2 - 0.09 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 523
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

MONTH OF JANUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	3	11	17	23	29
0.02	3	11	17	23	29
0.03	2	11	17	23	29
0.04	1	7	13	19	25
0.05	0	6	12	18	24
0.07	0	1	7	13	19
0.10	0	0	0	0	0
0.15	0	0	0	0	0
0.20	0	0	0	0	0
0.25	0	0	0	0	0
0.30	0	0	0	0	0
0.35	0	0	0	0	0
0.40	0	0	0	0	0
0.45	0	0	0	0	0
0.50	0	0	0	0	0
0.60	0	0	0	0	0
0.70	0	0	0	0	0
0.80	0	0	0	0	0
0.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	2	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
88	2	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
88	2	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	2	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	2	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

MONTH OF FEBRUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 696
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - 0.18 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.10 INCHES
MAXIMUM DAILY PRECIPITATION - 0.10 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.10 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.10 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.10 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.10 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.10 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 417
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - 0.18 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.10 INCHES
MAXIMUM DAILY PRECIPITATION - 0.10 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

[illegible] OF FEBRUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	2	12	24	36	48
0.02	2	12	24	36	48
0.03	2	12	24	36	48
0.04	2	12	24	36	48
0.05	2	12	24	36	48
0.07	2	12	24	36	48
0.10	1	6	12	18	24
0.15	0	0	0	0	0
0.20	0	0	0	0	0
0.25	0	0	0	0	0
0.30	0	0	0	0	0
0.35	0	0	0	0	0
0.40	0	0	0	0	0
0.45	0	0	0	0	0
0.50	0	0	0	0	0
0.60	0	0	0	0	0
0.70	0	0	0	0	0
0.80	0	0	0	0	0
0.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70		0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER N CLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	3	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.10	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
88	3	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.04
88	3	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	3	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	28	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.04	0.02	0.02	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
88	3	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	3	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

MONTH OF MARCH

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 7
TOTAL DAYS WITH PRECIPITATION - 3
TOTAL AMOUNT OF PRECIPITATION - 0.83 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 0.70 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 16 - 0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.70 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.70 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.70 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 3 HOUR 15 - 0.70 INCHES

B47

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 189
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

MONTH OF MARCH

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	7	23	41	59	77
0.02	6	21	39	57	75
0.03	4	20	38	56	74
0.04	4	20	38	56	74
0.05	2	13	25	37	49
0.07	2	12	24	36	48
0.10	2	7	13	19	25
0.15	1	6	12	18	24
0.20	1	6	12	18	24
0.25	1	6	12	18	24
0.30	1	6	12	18	24
0.35	1	6	12	18	24
0.40	1	6	12	18	24
0.45	1	6	12	18	24
0.50	1	6	12	18	24
0.60	1	6	12	18	24
0.70	0	5	11	17	23
0.80	0	0	0	0	0
0.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2184
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 12
TOTAL DAYS WITH PRECIPITATION - 6
TOTAL AMOUNT OF PRECIPITATION - 1.10 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 0.70 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 16 - 0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 15 - 0.70 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 15 - 0.70 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 15 - 0.70 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 15 - 0.70 INCHES

B49

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 1129
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - 0.18 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.10 INCHES
MAXIMUM DAILY PRECIPITATION - 0.10 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MARCH 1988 RAIN VERSION # 2P

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	12	46	82	118	154
0.02	11	44	80	116	152
0.03	8	43	79	115	151
0.04	7	39	75	111	147
0.05	4	31	61	91	121
0.07	4	25	55	85	115
0.10	3	13	25	37	49
0.15	1	6	12	18	24
0.20	1	6	12	18	24
0.25	1	6	12	18	24
0.30	1	6	12	18	24
0.35	1	6	12	18	24
0.40	1	6	12	18	24
0.45	1	6	12	18	24
0.50	1	6	12	18	24
0.60	1	6	12	18	24
0.70	0	5	11	17	23
0.80	0	0	0	0	0
0.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988

RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	4	1	0.00	0.00	0.03	0.03	0.01	0.02	0.06	0.12	0.02	0.00	0.00	0.00	
			0.03	0.00	0.00	0.01	0.01	0.00	0.22	0.07	0.00	0.04	0.13	0.21	1.01
88	4	2	0.02	0.07	0.09	0.05	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.02	0.00	0.00	0.05	0.39
88	4	3	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
88	4	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
88	4	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.10	0.10	0.10	
			0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
88	4	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	14	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
88	4	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	4	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	26	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
88	4	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	4	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

MONTH OF APRIL

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 39
TOTAL DAYS WITH PRECIPITATION - 7
TOTAL AMOUNT OF PRECIPITATION - 2.23 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.22 INCHES
MAXIMUM DAILY PRECIPITATION - 1.01 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 1 HOUR 19 - 0.22 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 1 HOUR 19 - 0.67 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 1 HOUR 19 - 0.92 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 1 HOUR 13 - 0.97 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 1 HOUR 5 - 1.19 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 3
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

MONTH OF APRIL

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	39	79	105	129	153
0.02	28	74	102	126	150
0.03	22	68	100	124	148
0.04	17	54	74	89	101
0.05	16	53	73	89	101
0.07	13	49	73	89	101
0.10	10	41	65	86	98
0.15	3	30	46	60	69
0.20	3	27	41	48	55
0.25	0	20	36	45	52
0.30	0	17	32	43	52
0.35	0	12	27	40	49
0.40	0	12	25	40	47
0.45	0	10	22	38	45
0.50	0	6	21	37	45
0.60	0	2	18	34	42
0.70	0	0	8	15	22
0.80	0	0	4	13	19
0.90	0	0	3	11	19
1.00	0	0	0	0	8
1.10	0	0	0	0	6
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	12N	
			1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	12MDNT	TOTAL
88	5	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.06	0.11
88	5	3	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.05	0.01	0.05	0.06	
			0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
88	5	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	7	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
88	5	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	5	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10	0.00	
			0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.50
88	5	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	
			0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
88	5	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	5	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

MONTH OF MAY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 20
TOTAL DAYS WITH PRECIPITATION - 6
TOTAL AMOUNT OF PRECIPITATION - 1.82 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.40 INCHES
MAXIMUM DAILY PRECIPITATION - 0.50 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 13 - 0.40 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 12 - 0.50 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 12 - 0.50 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 21 HOUR 23 - 0.60 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 21 HOUR 14 - 0.80 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FAHRENHEIT

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

MONTH OF MAY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	20	59	88	107	125
0.02	17	57	87	106	124
0.03	15	56	86	105	123
0.04	15	55	86	105	123
0.05	14	55	86	105	123
0.07	9	53	85	104	122
0.10	8	44	72	85	97
0.15	2	28	57	76	91
0.20	2	22	48	67	82
0.25	2	14	35	54	71
0.30	2	14	33	52	69
0.35	2	12	26	46	65
0.40	1	6	17	32	45
0.45	0	5	11	20	32
0.50	0	5	11	20	32
0.60	0	0	0	4	10
0.70	0	0	0	0	2
0.80	0	0	0	0	1
0.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	6	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
88	6	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	6	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

MONTH OF JUNE

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 30 HOUR 24 - 0.00 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 30 HOUR 19 - 0.00 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 30 HOUR 13 - 0.00 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 30 HOUR 7 - 0.00 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 30 HOUR 1 - 0.00 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

MONTH OF JUNE

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	1P	24
0.01	0	0	0	0	0
0.02	0	0	0	0	0
0.03	0	0	0	0	0
0.04	0	0	0	0	0
0.05	0	0	0	0	0
0.07	0	0	0	0	0
0.10	0	0	0	0	0
0.15	0	0	0	0	0
0.20	0	0	0	0	0
0.25	0	0	0	0	0
0.30	0	0	0	0	0
0.35	0	0	0	0	0
0.40	0	0	0	0	0
0.45	0	0	0	0	0
0.50	0	0	0	0	0
0.60	0	0	0	0	0
0.70	0	0	0	0	0
0.80	0	0	0	0	0
0.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2184
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 59
TOTAL DAYS WITH PRECIPITATION - 13
TOTAL AMOUNT OF PRECIPITATION - 4.05 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.40 INCHES
MAXIMUM DAILY PRECIPITATION - 1.01 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 5 DAY 22 HOUR 13 - 0.40 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 19 - 0.67 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 19 - 0.92 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 13 - 0.97 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 5 - 1.19 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FAHRENHEIT

TOTAL NUMBER OF HOURS - 3
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - 0.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.00 INCHES
MAXIMUM DAILY PRECIPITATION - 0.00 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUNE 1988 RAIN VERSION # 2P

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS) 1	6	12	18	24
0.01	59	138	196	245	293
0.02	45	131	192	241	289
0.03	37	124	189	[illegible]	286
0.04	32	109	163	[illegible]	239
0.05	30	108	162	[illegible]	239
0.07	22	102	161	[illegible]	238
0.10	18	85	140	[illegible]	210
0.15	5	58	105	[illegible]	175
0.20	5	49	92	1	152
0.25	2	34	76	108	138
0.30	2	31	68	104	136
0.35	2	24	56	95	129
0.40	1	18	42	72	92
0.45	0	15	33	58	77
0.50	0	11	32	57	77
0.60	0	2	18	38	52
0.70	0	0	8	15	24
0.80	0	0	4	13	20
0.90	0	0	3	11	19
1.00	0	0	0	0	8
1.10	0	0	0	0	6
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-JUNE 1988 RAIN VERSION # 2

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 4368
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 71
TOTAL DAYS WITH PRECIPITATION - 19
TOTAL AMOUNT OF PRECIPITATION - 5.15 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 1.01 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 16 - 0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 3 HOUR 15 - 0.70 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 19 - 0.92 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 13 - 0.97 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 1 HOUR 5 - 1.19 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 1132
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - 0.18 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.10 INCHES
MAXIMUM DAILY PRECIPITATION - 0.10 INCHES

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-JUNE 1988 RAIN VERSION # 2P

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMO INC	DURATION (HOURS) 1	6	12	18	24
0.01	71	187	287	378	468
0.02	56	178	281	372	462
0.03	45	170	277	368	458
0.04	39	150	246	328	406
0.05	34	141	231	308	380
0.07	26	128	223	300	372
0.10	21	98	170	228	276
0.15	6	64	123	174	216
0.20	6	55	108	152	192
0.25	3	40	92	136	178
0.30	3	37	80	127	171
0.35	3	30	68	113	158
0.40	2	24	54	90	121
0.45	1	21	45	76	106
0.50	1	17	44	75	106
0.60	1	8	30	56	80
0.70	0	5	19	32	48
0.80	0	0	4	13	21
0.90	0	0	3	11	19
1.00	0	0	0	0	8
1.10	0	0	0	0	6
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

JOINT FREQUENCY DISTRIBUTION TABLES

The tables presented in this section are results obtained from processing of the hourly meteorological data collected at the Copper Nuclear Station. The joint frequency distribution (JFD) tables represents the frequency of occurrence, in number of observations, that a particular wind speed, wind direction, and stability category occurred simultaneously. On a quarterly and semiannual basis, the JFDs were produced for wind speed and wind direction by atmospheric stability corresponding to the seven Pasquill stability classes, and for wind speed and wind direction for all stability categories combined. Atmospheric stability was classified per Regulatory Guide 1.23, using the 100-meter to 10-meter temperature difference (delta T) for the 100-meter JFDs and the 60-meter to 10-meter delta T for the 10-meter JFDs.

JFD's of 10m-Meter Wind vs. Delta T
January-March 1988

PRGGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	1	1	0	0	3	0	2	0	0	0	1	0	0	0	0	8
7.51-12.50	1	0	0	3	0	3	0	0	0	2	0	0	0	1	1	7	18
12.51-18.50	2	0	0	0	0	0	1	0	6	1	0	1	3	1	5	8	28
18.51-24.00	0	0	0	0	0	0	0	1	3	1	0	0	0	0	1	0	6
>24.00	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	0	7
TOTAL	3	1	1	3	0	6	1	3	9	8	0	2	3	2	10	15	67

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
3.51- 7.50	3	4	0	0	1	2	1	3	1	1	0	1	0	0	1	2	2[illegible]
7.51-12.50	2	1	0	1	0	1	3	0	3	4	0	0	1	0	1	5	22
12.51-18.50	1	0	0	0	0	0	1	1	0	2	0	1	2	0	8	5	21
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	2	0	3	5	1	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	5	0	1	1	4	5	5	4	7	0	4	3	3	15	13	76

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND - 60-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	1	0	0	2	0	0	1	0	0	1	6
3.51- 7.50	5	5	3	0	0	0	6	10	5	5	3	0	0	0	2	4	48
7.51-12.50	3	0	0	0	0	0	4	1	4	5	1	1	3	1	0	9	32
12.51-18.50	7	1	0	0	0	0	0	1	3	8	2	2	1	11	3	6	45
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	1	10
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
TOTAL	15	6	4	0	0	0	11	12	12	20	6	3	6	13	15	21	144

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	7	5	6	2	0	1	3	4	1	1	1	0	0	0	0	5	36
3.51- 7.50	25	14	3	17	12	8	11	16	13	7	6	1	3	13	16	30	195
7.51-12.50	42	16	7	8	9	6	18	14	15	8	7	7	8	15	35	45	261
12.51-18.50	18	9	1	0	1	0	4	3	23	13	9	7	1	23	63	46	221
18.51-24.00	0	0	0	0	0	0	0	0	2	2	1	6	4	8	25	7	55
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	1	8	7	1	17
TOTAL	92	44	17	27	22	15	36	37	55	31	24	21	17	67	146	134	785

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	14	5	6	2	0	2	4	6	9	15	6	4	0	3	8	10	94
3.51- 7.50	23	10	7	5	5	7	11	13	21	14	12	9	15	18	26	15	211
7.51-12.50	12	1	0	1	6	6	20	15	24	32	11	11	13	26	28	16	222
12.51-18.50	0	2	0	0	1	0	2	1	11	7	4	1	3	13	6	10	[illegible]
18.51-24.00	0	0	0	0	0	0	0	0	3	1	2	1	0	3	4	0	14
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
TOTAL	49	18	13	8	12	15	37	35	68	69	35	26	31	63	74	51	604

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	3	5	2	1	1	1	7	24	15	10	6	4	2	4	2	2	89
3.51- 7.50	4	1	1	0	1	5	13	20	27	10	3	1	2	2	7	7	104
7.51-12.50	1	0	0	0	0	0	1	0	8	6	1	7	11	1	0	2	38
12.51-18.50	0	0	0	0	0	0	0	2	1	2	1	0	1	0	0	0	7
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
TOTAL	8	6	3	1	2	6	21	46	52	28	11	12	16	7	11	12	243

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	11	9	6	3	4	4	12	22	22	8	2	1	2	1	2	3	112
3.51- 7.50	1	0	0	0	0	0	1	5	7	2	0	0	0	0	1	0	17
7.51-12.50	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	4
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	12	9	6	3	4	4	13	30	30	11	3	1	2	1	3	3	136

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	35	24	21	8	5	9	27	57	47	36	15	9	5	8	12	21	339
3.51- 7.50	61	35	15	22	19	25	43	69	74	39	24	13	2[illegible]	33	53	58	603
7.51-12.50	61	18	7	13	15	16	46	30	55	58	20	26	36	44	65	84	594
12.51-18.50	28	12	1	0	2	0	8	11	45	33	16	12	12	48	85	75	387
18.51-24.00	0	0	0	0	0	0	0	1	9	4	4	9	5	14	44	9	99
>24.00	0	0	0	0	0	0	0	0	0	4	0	0	1	9	15	2	31
TOTAL	185	89	44	43	41	50	124	168	230	174	79	69	78	156	274	249	2055

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2055

TOTAL NUMBER OF MISSING OBSERVATIONS: 129

PERCENT DATA RECOVERY FOR THIS PERIOD: 94.1 %

MEAN WIND SPEED FOR THIS PERIOD: 9.1 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.26	3.70	7.01	38.20	29.39	11.82	6.62

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	3	1	1	3	0	6	1	3	9	8	0	2	3	2	10	15	0
B	6	5	0	1	1	4	5	5	4	7	0	4	3	3	15	13	0
C	15	6	4	0	0	0	11	12	12	20	6	3	6	13	15	21	0
D	92	44	17	27	22	15	36	37	55	31	24	21	17	67	146	134	0
E	49	18	13	8	12	15	37	35	68	69	35	26	31	63	74	51	0
F	8	6	3	1	2	6	21	46	52	28	11	12	16	7	11	12	1
G	12	9	6	3	4	4	13	30	30	11	3	1	2	1	3	3	1
TOTAL	185	89	44	43	41	50	124	168	230	174	79	69	78	156	274	249	2

JFD's of 10m-Meter Wind vs. Delta T
April-June 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1986 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3.51- 7.50	0	5	0	1	2	2	5	10	5	1	0	0	1	0	0	1	33
7.51-12.50	14	6	7	11	3	8	23	25	28	11	4	0	1	3	0	7	151
12.51-18.50	4	1	0	0	0	1	5	16	74	27	0	0	0	1	6	4	139
18.51-24.00	0	0	0	0	0	0	4	4	22	3	0	0	2	4	0	1	40
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	18	12	7	12	5	11	37	55	130	42	4	0	4	9	6	13	365

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
3.51- 7.50	4	0	1	1	0	4	1	7	3	4	0	2	0	0	1	1	29
7.51-12.50	10	3	3	3	2	1	3	4	14	6	0	2	2	1	3	6	63
12.51-18.50	0	0	0	0	0	1	2	3	11	6	0	0	0	1	1	3	28
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
TOTAL	14	4	4	4	2	6	6	14	30	16	0	4	2	4	7	10	127

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	4	5	1	2	2	2	4	3	3	1	2	2	0	0	3	6	40
7.51-12.50	4	4	2	2	0	4	2	7	7	6	2	3	1	0	4	4	52
12.51-18.50	1	0	0	0	1	1	0	2	6	4	0	0	0	1	3	1	20
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	2	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
TOTAL	9	9	3	4	3	7	6	12	17	11	4	5	1	4	11	13	119

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	3	1	2	1	1	2	0	2	0	2	1	0	0	0	1	0	16
3.51- 7.50	8	24	10	13	6	21	23	14	9	5	1	3	0	4	9	9	159
7.51-12.50	18	20	9	16	14	3	11	15	35	9	12	7	3	4	8	18	202
12.51-18.50	5	10	0	0	5	1	4	9	14	5	3	4	10	7	10	12	99
18.51-24.00	0	0	0	0	0	0	0	0	7	3	0	0	6	3	6	4	29
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	5
TOTAL	34	55	21	30	26	27	38	40	65	24	17	14	19	20	36	44	510

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	6	6	3	2	5	4	3	5	14	2	2	0	2	1	1	4	60
3.51- 7.50	42	17	19	17	16	17	37	47	46	13	15	3	7	5	10	15	326
7.51-12.50	11	6	3	5	4	1	18	36	62	9	4	0	4	5	5	5	178
12.51-18.50	3	0	0	1	1	1	3	17	7	0	2	2	2	5	2	2	48
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	62	29	25	25	26	23	61	105	130	24	23	5	15	16	19	27	617

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	4
1.01- 3.50	22	2	4	2	1	1	4	16	18	7	4	2	0	2	4	15	104
3.51- 7.50	3	1	1	0	1	2	2	11	20	17	3	0	4	0	1	4	70
7.51-12.50	0	0	0	0	0	1	0	0	1	2	0	0	1	1	0	0	6
12.51-18.50	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	25	3	5	2	3	4	6	28	39	26	7	2	5	3	5	19	186

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	15	11	4	3	1	5	6	19	18	8	4	1	0	2	9	12	118
3.51- 7.50	2	1	0	0	0	0	2	3	4	3	0	0	3	0	0	4	22
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	4
12.51-18.50	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	17	12	4	4	2	5	8	22	22	11	4	2	5	2	10	16	149

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	9
1.01- 3.50	46	21	13	8	8	12	13	42	52	19	11	3	2	5	15	31	301
3.51- 7.50	63	53	32	34	27	48	74	95	90	44	21	10	15	9	24	40	679
7.51-12.50	57	39	24	37	23	18	57	87	147	43	22	13	14	14	21	40	656
12.51-18.50	13	11	0	2	9	5	14	48	112	42	5	6	12	15	22	8	338
18.51-24.00	0	0	0	0	0	0	4	4	32	6	0	0	8	9	8	8	79
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	1	11
TOTAL	179	124	69	81	67	83	162	276	433	154	59	32	51	58	94	142	2073

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2073

TOTAL NUMBER OF MISSING OBSERVATIONS: 111

PERCENT DATA RECOVERY FOR THIS PERIOD: 94.9 %

MEAN WIND SPEED FOR THIS PERIOD: 8.7 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
17.61	6.13	5.74	24.60	29.76	8.97	7.19

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	18	12	7	12	5	11	37	55	130	42	4	0	3	9	6	13	0
B	14	4	4	4	2	6	6	14	30	16	0	4	2	4	7	10	0
C	9	9	3	4	3	7	6	12	17	11	4	5	1	4	11	13	0
D	34	55	21	30	26	27	38	40	65	24	17	14	19	20	36	44	0
E	62	29	25	25	26	23	61	105	130	24	23	5	15	16	19	27	2
F	25	3	5	2	3	4	6	28	39	26	7	2	5	3	5	19	4
G	17	12	4	4	2	5	8	22	22	11	4	2	5	2	10	16	3
TOTAL	179	124	69	81	67	83	162	276	433	154	59	32	51	58	94	142	9

JFD's of 10m-Meter Wind vs. Delta T
January-June 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3.51- 7.50	0	6	1	1	2	5	5	12	5	1	0	1	1	0	0	1	41
7.51-12.50	15	6	7	14	3	11	23	25	28	13	4	0	1	4	1	14	169
12.51-18.50	6	1	0	0	0	1	6	16	80	28	0	1	3	2	11	12	167
18.51-24.00	0	0	0	0	0	0	4	5	25	4	0	0	2	4	1	1	46
>24.00	0	0	0	0	0	0	0	0	0	4	0	0	0	1	3	0	8
TOTAL	21	13	8	15	5	17	38	58	139	50	4	2	7	11	16	28	432

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	4
3.51- 7.50	7	4	1	1	1	6	2	10	4	5	0	3	0	0	2	3	49
7.51-12.50	12	4	3	4	2	2	6	4	17	10	0	2	3	1	4	11	85
12.51-18.50	1	0	0	0	0	1	3	4	11	8	0	1	2	1	9	8	49
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	2	0	4	6	1	14
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
TOTAL	20	9	4	5	3	10	11	19	34	23	0	8	5	7	22	23	203

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD- 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	1	0	0	2	0	0	1	0	0	1	6
3.51- 7.50	9	10	4	2	2	2	10	13	8	6	5	2	0	0	5	10	88
7.51-12.50	7	4	2	2	0	4	6	8	11	11	3	4	4	1	4	13	84
12.51-18.50	8	1	0	0	1	1	0	3	9	12	2	2	1	12	6	7	65
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	1	1	9	3	15
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5
TOTAL	24	15	7	4	3	7	17	24	29	31	10	8	7	17	26	34	263

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	10	6	8	3	1	3	3	6	1	3	2	0	0	0	1	5	52
3.51- 7.50	33	38	13	30	18	29	34	30	22	12	7	4	3	17	25	39	354
7.51-12.50	60	36	16	24	23	9	29	29	51	17	19	14	11	19	43	63	463
12.51-18.50	23	19	1	0	6	1	8	12	37	18	12	11	11	30	73	58	320
18.51-24.00	0	0	0	0	0	0	0	0	9	5	1	6	10	11	31	11	84
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	1	10	9	2	22
TOTAL	126	99	38	57	48	42	74	77	120	55	41	35	36	87	182	178	1295

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	20	11	9	4	5	6	7	11	23	17	8	4	2	4	9	14	154
3.51- 7.50	65	27	26	22	21	24	48	60	67	27	27	12	22	23	36	30	537
7.51-12.50	23	7	3	6	10	7	38	51	86	41	15	11	17	31	33	21	400
12.51-18.50	3	2	0	1	2	1	5	18	18	7	6	3	5	18	8	12	109
18.51-24.00	0	0	0	0	0	0	0	0	4	1	2	1	0	3	4	1	16
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
TOTAL	111	47	38	33	38	38	98	140	198	93	58	31	46	79	93	78	1221

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	5
1.01- 3.50	25	7	6	3	2	2	11	40	33	17	10	6	2	6	6	17	193
3.51- 7.50	7	2	2	0	2	7	15	31	47	27	6	1	6	2	8	11	174
7.51-12.50	1	0	0	0	0	1	1	0	9	8	1	7	12	2	0	2	44
12.51-18.50	0	0	0	0	1	0	0	3	1	2	1	0	1	0	0	0	9
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
TOTAL	33	9	8	3	5	10	27	74	91	54	18	14	21	10	16	31	429

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	4
1.01- 3.50	26	20	10	6	5	9	18	41	40	16	6	2	2	3	11	15	230
3.51- 7.50	3	1	0	0	0	0	3	8	11	5	0	0	3	0	1	4	39
7.51-12.50	0	0	0	0	0	0	0	0	0	1	0	1	2	0	1	0	5
12.51-18.50	0	0	0	1	1	0	0	3	1	0	0	0	0	0	0	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	29	21	10	7	6	9	21	52	52	22	7	3	7	3	13	19	285

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	11
1.01- 3.50	81	45	34	16	13	21	40	99	99	55	26	12	7	13	27	52	640
3.51- 7.50	124	88	47	56	46	73	117	164	164	83	45	23	35	42	77	98	1282
7.51-12.50	118	57	31	50	38	34	103	117	202	101	42	39	50	58	86	124	1250
12.51-18.50	41	23	1	2	11	5	22	59	157	75	21	18	23	63	107	97	725
18.51-24.00	0	0	0	0	0	0	4	5	41	10	4	9	13	23	52	17	178
>24.00	0	0	0	0	0	0	0	0	0	4	0	0	1	15	19	3	42
TOTAL	364	213	113	124	108	133	286	444	663	328	138	101	129	214	368	391	4128

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4368

TOTAL NUMBER OF VALID OBSERVATIONS: 4128

TOTAL NUMBER OF MISSING OBSERVATIONS: 240

PERCENT DATA RECOVERY FOR THIS PERIOD: 94.5 %

MEAN WIND SPEED FOR THIS PERIOD: 8.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
10.47	4.92	6.37	31.37	29.58	10.39	6.90

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	21	13	8	15	5	17	38	58	139	50	4	2	7	11	16	28	0
B	20	9	4	5	3	10	11	19	34	23	0	8	5	7	22	23	0
C	24	15	7	4	3	7	17	24	29	31	10	8	7	17	26	34	0
D	126	99	38	57	48	42	74	77	120	55	41	35	36	87	182	178	0
E	111	47	38	33	38	38	98	140	198	93	58	31	46	79	93	78	2
F	33	9	8	3	5	10	27	74	91	54	18	14	21	10	16	31	5
G	29	21	10	7	6	9	21	52	52	22	7	3	7	3	13	19	4
TOTAL	364	213	113	124	108	133	286	444	663	328	138	101	129	214	368	391	11

Stability Class by Hour of Day
10-Meter Wind vs. Delta T
January-June 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	1	1	D	D	D	D	D	E	E	E	D	D	D	D	C	D	D	D	D	E	E	E	E	E	E	F
88	1	2	F	F	E	F	E	F	E	E	E	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E
88	1	3	E	E	E	E	E	E	E	E	E	D	C	B	A	B	C	D	D	E	D	D	D	D	D	D
88	1	4	D	D	D	E	E	D	D	D	D	D	C	C	B	B	C	D	D	D	D	E	E	E	E	E
88	1	5	D	E	E	E	D	D	D	D	D	D	D	D	D	C	D	D	D	E	E	E	E	D	D	D
88	1	6	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	-	D	D	D	D	D	D	D
88	1	7	D	D	D	D	D	D	D	D	D	D	C	C	C	C	D	D	D	E	E	E	E	E	E	E
88	1	8	E	E	E	D	E	E	E	E	D	D	C	C	A	B	D	D	D	D	D	D	D	D	D	D
88	1	9	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	E	E	F	F	F	F	F
88	1	10	F	F	E	F	E	F	F	E	E	D	D	B	C	C	D	D	D	D	D	D	D	D	D	E
88	1	11	E	E	E	E	E	E	E	E	E	D	D	D	C	C	D	D	D	E	-	-	-	-	-	D
88	1	12	E	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	E
88	1	13	E	E	E	E	E	E	E	E	E	D	C	D	A	C	D	D	D	F	G	G	G	G	G	F
88	1	14	F	E	E	D	D	D	D	E	D	D	E	D	C	B	C	D	D	E	E	E	F	E	E	E
88	1	15	E	F	F	F	F	F	F	F	F	F	C	C	C	C	D	D	E	E	E	E	E	E	E	E
88	1	16	E	E	E	E	E	E	E	-	-	-	D	D	D	D	D	D	E	E	F	F	F	E	E	G
88	1	17	F	G	G	G	G	G	G	F	F	F	E	D	D	D	D	D	D	E	-	G	G	G	G	G
88	1	18	G	G	G	G	G	G	G	G	F	E	D	C	D	D	D	D	D	D	D	D	D	D	D	D
88	1	19	E	E	E	E	E	E	E	E	E	E	E	E	E	D	E	E	E	E	E	E	E	D	D	D
88	1	20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	1	21	D	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F
88	1	22	F	F	F	F	E	F	E	E	E	D	D	E	D	E	D	D	D	D	D	E	D	D	D	E
88	1	23	E	E	E	E	E	E	D	D	D	E	D	D	D	D	-	E	E	E	F	D	D	D	D	D
88	1	24	D	D	E	E	E	E	E	F	F	D	D	C	D	D	C	-	D	E	E	-	F	D	D	D
88	1	25	D	D	D	D	D	D	D	D	D	D	C	B	B	B	B	D	D	D	D	D	E	D	E	D
88	1	26	D	D	D	D	D	D	D	E	D	D	C	C	C	C	D	D	D	D	D	D	D	E	E	E
88	1	27	E	E	E	E	E	F	F	E	E	C	D	C	A	C	-	C	D	E	F	F	F	E	E	F
88	1	28	F	E	E	E	E	E	E	E	E	D	D	D	C	B	C	C	D	E	G	G	G	F	F	G
88	1	29	G	G	G	G	G	G	G	F	F	E	D	D	C	C	D	D	E	E	F	E	E	E	E	E
88	1	30	E	E	E	F	F	F	F	E	E	E	D	D	D	F	F	-	-	-	F	F	F	G	F	G
88	1	31	G	F	E	D	D	D	D	D	D	D	C	C	A	B	B	C	D	D	D	D	D	D	D	D
88	2	1	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	D	D	D	D	D	D	D	D
88	2	2	D	D	D	D	D	D	D	D	D	D	C	B	B	C	C	C	D	D	E	E	E	E	D	D
88	2	3	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	D	D	E	D	E	E	D	E	E
88	2	4	E	E	E	E	F	F	G	G	F	F	D	D	D	D	C	D	D	D	E	E	E	E	E	E
88	2	5	E	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	E	F	F	F
88	2	6	F	F	F	E	E	E	F	F	F	E	D	D	D	B	C	C	D	D	E	E	E	E	E	E
88	2	7	E	E	E	E	E	E	E	E	E	D	D	D	C	C	D	D	D	D	E	F	E	F	E	E
88	2	8	E	D	D	D	D	D	D	E	D	D	D	C	C	C	D	D	D	E	E	-	-	E	D	D
88	2	9	D	D	D	D	D	D	E	D	D	D	D	B	C	B	C	C	D	D	D	D	D	D	D	D
88	2	10	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	D	D
88	2	11	D	D	D	D	D	D	D	D	D	D	-	-	-	C	D	D	D	D	E	F	F	F	F	F
88	2	12	F	E	D	D	D	D	D	E	D	D	B	C	C	C	C	D	D	D	E	E	E	F	F	F
88	2	13	F	F	G	F	F	F	E	E	D	E	D	A	D	C	D	D	D	E	E	E	E	F	F	F
88	2	14	F	F	F	F	F	E	F	E	D	-	-	-	-	-	-	E	D	D	D	D	E	-	-	E

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	2	15	D	D	D	D	D	E	E	E	D	D	D	E	C	B	D	D	D	D	E	-	F	F	F	-
88	2	16	D	E	D	E	E	E	E	E	E	D	C	B	B	A	B	D	D	E	E	E	E	E	E	E
88	2	17	E	E	E	E	E	G	G	F	F	D	D	C	D	B	D	C	D	E	F	F	F	F	F	F
88	2	18	F	F	F	F	-	F	G	F	F	D	D	C	C	A	C	C	D	D	E	E	F	F	F	F
88	2	19	G	F	F	E	F	F	E	E	E	D	D	D	D	B	D	E	D	D	E	E	E	E	E	E
88	2	20	E	E	E	E	E	E	D	D	D	C	B	A	A	A	A	B	C	E	D	D	D	D	D	D
88	2	21	D	D	D	D	D	D	D	D	-	D	-	D	A	B	C	D	D	E	F	F	F	F	F	F
88	2	22	G	E	E	E	E	F	E	E	D	D	-	-	-	-	-	-	-	-	E	E	E	E	D	D
88	2	23	D	D	D	D	D	D	E	E	D	C	D	C	C	B	D	B	D	-	E	E	D	D	E	E
88	2	24	E	E	E	E	E	E	E	D	D	C	C	C	D	A	C	C	D	D	E	F	-	G	G	F
88	2	25	F	G	G	G	G	G	G	G	F	E	C	B	C	C	D	D	-	-	F	F	G	F	F	F
88	2	26	-	-	-	-	E	E	E	E	E	D	C	C	C	B	C	C	D	E	F	F	E	F	E	E
88	2	27	-	D	F	F	F	E	F	F	F	F	F	F	F	D	C	E	C	C	B	B	D	D	D	C
88	2	28	G	G	G	G	G	G	G	F	F	F	F	F	F	E	E	F	-	-	-	-	-	-	-	E
88	2	29	E	F	G	F	G	G	G	F	F	F	F	G	G	F	E	D	D	E	G	G	G	G	G	G
88	3	1	G	F	F	F	G	F	F	F	E	D	E	-	A	B	D	F	G	E	F	F	F	F	E	E
88	3	2	D	E	D	E	E	E	E	D	D	C	A	C	B	A	D	C	D	D	D	E	E	D	D	D
88	3	3	D	D	D	D	D	D	D	D	D	D	D	E	D	B	-	-	D	D	E	E	E	E	E	E
88	3	4	E	E	E	E	E	E	E	E	-	-	D	B	D	B	A	B	C	D	E	G	F	E	F	F
88	3	5	F	E	E	F	E	E	E	D	D	E	C	C	C	C	B	B	D	D	D	D	E	E	F	F
88	3	6	E	E	E	E	E	E	D	E	D	D	C	B	C	B	A	B	B	-	F	E	E	E	E	E
88	3	7	D	D	D	D	D	D	E	E	E	D	-	-	-	D	A	-	D	E	-	E	-	-	E	E
88	3	8	D	E	E	E	E	E	E	E	D	D	A	D	C	D	D	D	C	D	D	E	E	F	F	F
88	3	9	F	E	E	F	E	E	E	E	E	D	B	C	B	C	D	D	B	C	B	E	F	F	G	C
88	3	10	G	G	F	G	G	G	F	F	E	C	-	-	-	-	-	-	-	-	E	E	E	E	E	E
88	3	11	E	E	E	E	-	E	-	F	E	D	D	D	E	-	D	A	-	-	D	D	E	E	E	D
88	3	12	D	D	D	D	D	D	D	D	D	D	D	-	A	C	A	-	C	C	D	D	D	D	D	D
88	3	13	D	D	D	D	D	D	D	D	D	D	C	B	D	A	B	B	B	B	D	E	D	D	-	E
88	3	14	D	E	E	E	E	E	D	E	D	D	C	C	A	A	A	D	A	D	-	E	E	E	E	E
88	3	15	E	-	E	F	E	E	E	E	E	D	D	A	D	A	A	A	A	A	C	D	D	E	F	F
88	3	16	E	F	E	E	E	-	E	E	F	E	C	C	A	B	D	B	C	C	D	D	E	F	E	E
88	3	17	E	D	D	D	D	D	E	E	E	D	D	D	D	D	C	D	D	D	D	D	E	F	E	F
88	3	18	F	F	E	E	E	E	E	E	E	D	D	D	B	B	B	A	A	D	-	F	G	G	G	G
88	3	19	G	G	G	F	F	G	F	D	B	C	D	A	-	D	A	B	-	-	-	E	G	G	-	G
88	3	20	G	G	E	E	E	E	E	F	-	-	-	-	-	A	C	D	A	-	-	F	G	-	G	G
88	3	21	G	F	E	D	E	E	E	E	D	E	B	D	A	-	-	A	B	D	D	E	E	F	E	E
88	3	22	G	F	F	F	G	G	G	G	E	E	-	G	-	A	D	E	-	G	-	-	-	E	D	E
88	3	23	D	E	E	E	E	E	E	F	E	C	B	A	D	A	B	A	A	B	D	E	E	E	E	E
88	3	24	D	D	D	E	E	D	D	D	D	E	F	-	-	E	-	E	D	D	-	-	-	E	E	E
88	3	25	F	F	F	-	F	E	E	E	F	D	E	F	D	A	B	D	D	-	E	-	G	C	D	E
88	3	26	E	E	E	E	E	E	E	D	D	D	A	D	D	C	D	A	-	-	-	G	G	G	G	G
88	3	27	G	G	G	G	F	F	E	E	E	D	A	A	A	A	A	A	-	-	D	E	F	G	G	G
88	3	28	F	F	-	E	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E
88	3	29	E	E	D	D	D	E	D	D	D	D	C	D	C	B	A	B	B	C	D	D	E	G	G	G
88	3	30	G	G	G	G	F	G	G	F	D	C	A	A	A	A	A	A	B	C	D	D	E	E	E	-

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	3	31	E	-	E	E	E	E	E	E	D	D	D	E	D	A	A	A	B	D	D	D	D	-	D	-
88	4	1	G	G	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E
88	4	2	E	E	E	E	E	E	E	E	D	E	C	D	D	-	-	D	D	D	D	D	E	D	D	E
88	4	3	E	E	E	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	-	-	-
88	4	4	F	F	F	F	E	G	F	E	-	-	-	D	D	C	B	B	A	B	C	D	E	F	G	G
88	4	5	F	F	F	F	G	G	F	D	D	A	A	C	C	D	E	D	E	D	-	E	E	E	E	E
88	4	6	E	E	E	E	E	E	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	4	7	-	-	-	-	-	-	-	-	-	B	A	A	A	A	A	A	C	D	E	E	E	E	F	E
88	4	8	E	E	E	E	E	E	E	E	D	B	A	A	A	D	A	A	A	D	E	-	-	-	E	E
88	4	9	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D	E	E	E	E	E
88	4	10	E	E	E	E	E	E	E	D	D	B	A	A	A	A	A	B	C	D	D	E	F	F	F	E
88	4	11	G	G	F	F	F	F	E	E	D	A	A	A	A	C	A	A	B	D	D	D	E	F	E	F
88	4	12	F	G	G	G	G	G	G	E	F	D	D	B	D	C	D	E	C	D	E	F	G	G	G	G
88	4	13	G	G	G	G	F	F	G	G	F	D	D	D	A	D	A	A	A	C	E	D	E	E	D	D
88	4	14	D	E	E	E	E	E	E	E	D	C	B	D	B	A	B	B	A	B	D	E	F	F	F	G
88	4	15	G	G	G	G	G	G	G	F	D	D	A	A	A	C	D	B	A	C	D	E	-	G	G	G
88	4	16	G	G	G	G	G	G	G	G	F	-	B	A	A	B	A	A	A	B	D	E	F	F	F	F
88	4	17	F	F	F	F	F	E	E	E	D	D	D	E	E	D	D	-	-	D	D	D	D	D	D	D
88	4	18	D	E	D	D	D	D	D	E	C	A	B	A	A	B	B	D	B	D	D	E	F	F	G	G
88	4	19	G	G	G	G	G	F	E	E	D	C	C	C	A	B	A	A	A	A	C	D	E	E	F	E
88	4	20	E	E	E	E	F	F	E	D	E	D	B	B	A	A	A	A	A	B	D	E	B	E	E	E
88	4	21	E	E	E	E	E	E	D	D	D	D	E	G	F	G	E	-	-	-	D	D	E	-	-	D
88	4	22	D	D	D	D	D	D	D	D	D	D	D	D	D	F	F	D	D	C	D	D	D	E	E	D
88	4	23	D	D	D	D	D	D	D	D	D	D	C	B	A	A	A	D	C	D	D	E	E	F	G	G
88	4	24	G	G	G	G	G	F	F	F	D	A	A	A	A	-	-	-	A	-	-	-	E	-	-	-
88	4	25	-	-	E	E	E	E	F	F	D	C	B	A	C	-	-	-	-	-	-	-	D	D	D	D
88	4	26	E	E	E	E	D	E	E	E	D	D	C	B	C	B	D	D	D	D	D	D	D	D	D	E
88	4	27	D	E	E	-	-	-	-	-	C	A	A	C	A	A	A	A	B	C	D	D	E	F	F	G
88	4	28	G	G	G	G	-	-	-	A	D	B	D	B	B	A	A	A	A	-	-	E	G	F	E	E
88	4	29	E	F	F	F	F	E	F	E	D	D	A	A	A	A	A	A	A	C	D	E	E	E	E	G
88	4	30	G	G	F	G	G	F	E	D	D	B	A	A	B	A	B	D	D	D	E	E	F	F	F	E
88	5	1	E	E	E	F	E	E	E	D	C	A	-	A	A	A	A	A	A	-	E	E	E	E	E	E
88	5	2	E	F	F	E	E	E	E	E	D	D	B	A	A	A	A	-	-	-	F	E	D	D	E	E
88	5	3	E	E	E	D	D	E	E	E	D	D	D	D	C	C	B	D	A	D	C	F	-	-	E	D
88	5	4	D	D	D	D	E	D	D	D	D	D	D	B	D	B	D	-	-	D	D	-	-	G	G	F
88	5	5	F	E	E	E	-	E	E	E	E	-	-	-	-	D	-	-	B	C	C	D	E	G	G	G
88	5	6	G	G	G	F	F	F	F	E	D	C	B	A	A	A	A	A	A	B	D	D	D	E	E	E
88	5	7	E	E	E	E	E	E	E	D	D	D	A	A	A	A	A	A	A	A	C	D	D	D	D	E
88	5	8	E	D	D	D	D	E	E	D	D	D	D	D	A	A	A	A	A	D	D	D	D	D	D	D
88	5	9	D	D	D	D	D	D	D	D	D	C	B	A	A	A	A	A	B	D	D	E	E	F	G	G
88	5	10	G	G	G	G	F	F	E	E	D	D	D	C	C	B	B	D	D	D	E	E	G	G	G	G
88	5	11	G	F	G	F	E	E	E	E	D	D	C	C	C	B	D	C	C	B	C	E	D	E	E	E
88	5	12	F	G	G	G	F	F	F	E	D	D	C	B	A	B	A	A	A	B	C	E	F	F	F	E
88	5	13	G	G	G	F	E	D	D	D	D	B	B	A	A	B	A	A	B	B	C	D	D	E	E	E
88	5	14	E	E	E	E	E	F	F	E	D	B	A	A	A	A	A	D	D	D	D	D	E	E	E	E

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	5	15	E	F	G	G	F	F	F	E	D	D	B	A	B	C	B	C	C	D	D	E	E	G	G	G
88	5	16	G	G	F	E	E	F	E	E	D	-	-	A	B	A	A	C	C	D	D	E	E	E	E	D
88	5	17	D	D	D	D	D	E	D	C	B	A	A	A	A	A	A	A	A	B	D	D	D	E	E	E
88	5	18	E	E	E	E	E	E	D	D	A	A	A	A	A	A	A	A	A	B	D	D	D	E	E	E
88	5	19	E	E	E	E	F	F	D	C	C	B	A	A	A	A	A	A	C	C	D	D	E	F	F	F
88	5	20	F	F	F	F	F	E	D	D	C	D	D	E	D	A	A	D	D	D	D	E	E	D	E	E
88	5	21	E	E	E	E	E	E	E	D	D	D	D	E	E	E	E	D	D	D	D	D	E	E	E	E
88	5	22	E	E	E	E	E	E	D	D	D	D	D	D	C	E	D	D	D	D	E	E	E	E	E	E
88	5	23	E	E	E	E	E	E	E	D	D	D	E	D	D	D	D	D	D	D	D	E	E	E	E	F
88	5	24	E	F	F	E	E	E	E	D	D	C	B	B	C	C	D	D	D	D	E	F	E	E	E	E
88	5	25	E	E	E	E	E	D	D	C	A	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
88	5	26	E	E	E	E	E	E	E	D	C	B	B	A	A	A	A	A	B	C	D	D	E	E	E	E
88	5	27	E	E	E	E	E	E	E	E	E	D	D	-	B	B	A	A	A	E	D	D	E	E	E	E
88	5	28	E	E	E	E	E	E	E	D	D	C	A	B	A	A	A	B	A	C	C	D	E	E	E	E
88	5	29	E	E	E	E	D	D	D	A	A	A	A	A	A	A	A	D	A	D	D	D	E	D	E	E
88	5	30	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	A	C	C	D	E	E	E	E
88	5	31	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	E	D	C	D	E	E	E	E	F
88	6	1	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	C	D	D	E	E	E	E	E
88	6	2	E	E	E	E	E	E	D	D	D	C	B	C	D	C	D	C	C	D	D	E	E	E	F	F
88	6	3	F	G	G	G	E	E	E	D	D	C	C	D	C	D	D	C	D	D	D	E	E	D	D	D
88	6	4	E	D	E	E	E	E	D	D	C	B	B	A	B	B	B	A	B	C	D	E	F	F	F	F
88	6	5	F	F	F	G	F	G	E	D	C	A	A	A	A	A	A	A	A	B	D	E	F	G	F	F
88	6	6	G	G	G	G	G	G	F	D	C	B	A	A	A	A	A	A	A	B	D	E	F	F	F	F
88	6	7	F	F	F	F	-	-	E	D	C	B	A	A	A	A	A	A	A	C	D	D	E	E	E	E
88	6	8	E	E	F	G	E	E	D	C	B	A	A	A	A	B	C	D	D	D	D	E	F	G	E	E
88	6	9	E	E	E	E	D	A	D	A	C	C	A	A	A	A	A	B	B	C	D	E	E	F	F	F
88	6	10	G	G	G	G	G	G	F	D	B	B	A	A	A	A	A	A	A	B	D	E	F	G	G	G
88	6	11	G	F	G	F	F	F	D	D	B	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
88	6	12	E	E	E	E	E	E	D	D	A	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
88	6	13	E	E	E	E	E	E	D	D	C	A	A	A	A	A	A	A	C	B	D	E	E	E	E	E
88	6	14	E	E	E	E	E	E	E	D	B	A	A	A	A	A	C	D	E	D	D	D	E	F	F	E
88	6	15	F	F	F	E	E	E	D	D	D	C	C	D	C	B	A	C	D	D	D	F	F	G	G	G
88	6	16	G	G	G	G	G	G	F	D	D	B	A	A	A	A	A	A	A	B	D	E	F	G	F	F
88	6	17	E	E	E	E	E	E	E	D	D	C	A	A	A	A	A	A	A	A	D	E	E	F	E	E
88	6	18	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
88	6	19	E	E	E	E	E	D	D	D	B	A	A	A	A	A	A	A	A	C	D	E	E	E	E	E
88	6	20	E	E	F	F	F	F	E	D	B	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
88	6	21	E	E	E	E	E	E	D	D	C	A	A	A	A	A	A	-	-	D	-	-	E	E	-	-
88	6	22	-	-	-	-	-	-	-	-	E	E	D	A	A	A	A	A	B	D	D	G	G	G	F	E
88	6	23	E	E	E	E	E	E	E	D	B	A	A	A	A	A	A	A	A	C	D	E	F	F	F	E
88	6	24	F	E	F	E	E	E	E	D	D	C	A	B	A	A	A	A	C	D	E	E	F	F	F	F
88	6	25	F	E	F	E	E	E	E	D	D	D	C	B	C	B	B	C	C	D	D	E	E	E	E	E
88	6	26	E	E	E	E	E	E	D	D	C	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
88	6	27	E	E	E	E	E	E	D	B	A	A	A	A	A	A	A	A	A	B	D	E	G	G	G	G
88	6	28	G	G	F	F	F	G	E	D	C	B	B	A	B	A	A	B	C	D	D	E	F	E	E	F

B90

PROGRAM: JFD VER[illegible] P
NPPD-COOPER NUCLEAR [illegible] JFD: 10M WIND VS 60-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: [illegible]
DATA PERIOD EXAMD [illegible] /88 - 6/30/88

STABILITY BASED ON: D[illegible] BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	6	29	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	B	D	D	D	D	D	D	D
88	6	30	D	D	D	D	D	D	D	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	D

JFD's of 100m-Meter Wind vs. Delta T
January-March 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD ANALYZED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0		1	0	0	0	0	0	1	0	0	0	2
7.51-12.50	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
>24.00	0	0	0	0	0	0	0	0	2	3	0	0	0	0	2	0	7
TOTAL	0	0	0	0	0	1	1	0	3	3	0	0	1	0	2	1	14

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	3
7.51-12.50	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
12.51-18.50	0	0	0	3	0	0	0	0	0	1	0	0	1	1	0	4	10
18.51-24.00	0	0	0	0	0	0	0	0	3	0	1	1	1	0	4	2	13
>24.00	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1	0	4
TOTAL	0	0	1	3	1	3	0	0	5	2	2	1	2	1	5	6	33

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	8	0	0	0	0	1	1	3	1	1	1	1	0	1	1	1	20
7.51-12.50	0	0	0	0	1	1	5	2	1	5	1	0	0	1	1	1	19
12.51-18.50	0	1	0	1	0	1	0	0	2	3	0	2	2	1	2	11	26
18.51-24.00	2	0	0	0	0	0	1	1	0	1	0	0	0	4	9	7	25
>24.00	0	0	0	0	0	0	0	0	1	0	0	0	2	0	4	0	7
TOTAL	10	1	0	1	1	3	7	6	5	10	2	3	4	7	17	20	97

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	2	1	2	3	1	3	1	1	1	2	1	0	1	3	1	27
3.51- 7.50	33	12	4	5	10	11	7	11	11	12	7	2	2	3	8	14	152
7.51-12.50	28	4	2	7	11	7	10	19	13	9	5	7	6	11	25	39	203
12.51-18.50	34	7	7	7	2	5	10	10	21	28	9	12	9	27	68	47	303
18.51-24.00	24	20	2	0	5	3	4	9	12	5	3	1	4	17	58	41	208
>24.00	13	0	0	-	0	0	0	1	8	1	2	9	2	16	32	6	90
TOTAL	136	45	16	21	31	27	34	51	66	56	28	32	23	75	194	148	983

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	2	6
3.51- 7.50	3	5	3	3	1	2	2	1	1	8	1	2	6	3	3	6	50
7.51-12.50	13	6	6	8	8	13	9	9	13	16	7	6	8	13	22	26	177
12.51-18.50	12	0	3	1	3	5	3	9	16	34	20	8	14	23	28	20	199
18.51-24.00	4	3	0	0	3	2	12	2	17	2	5	6	9	13	13	12	103
>24.00	0	0	0	0	0	0	9	0	11	1	1	4	3	9	6	1	45
TOTAL	32	9	12	12	15	23	35	21	58	62	35	26	40	61	72	67	580

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	1	0	0	2	0	1	1	0	1	0	0	7
3.51- 7.50	1	2	0	2	1	0	1	4	4	5	5	1	5	0	0	5	36
7.51-12.50	2	1	3	2	2	4	1	16	14	24	8	3	6	5	2	16	109
12.51-18.50	0	0	0	0	0	1	11	17	14	11	8	3	1	4	2	7	79
18.51-24.00	0	0	0	0	0	0	3	1	2	1	2	0	6	8	3	0	26
>24.00	0	0	0	0	0	0	2	0	1	0	0	0	0	2	0	0	5
TOTAL	3	4	3	4	3	6	18	38	37	41	24	8	18	20	7	28	262

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR 1988 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3.51- 7.50	2	0	1	2	0	0	1	3	0	0	1	0	0	1	4	2	17
7.51-12.50	1	1	1	1	0	0	2	10	4	4	0	2	2	2	2	2	34
12.51-18.50	0	0	0	0	0	0	4	8	8	5	1	0	0	3	0	0	29
18.51-24.00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	3
TOTAL	3	1	2	3	0	0	8	23	12	9	3	2	2	6	6	6	86

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	4	1	2	3	3	3	1	3	2	4	2	0	2	3	5	42
3.51- 7.50	47	19	9	12	13	15	12	22	17	26	16	6	14	8	16	28	280
7.51-12.50	44	6	12	18	22	28	27	56	45	58	21	18	22	32	52	84	545
12.51-18.50	46	8	10	12	5	12	29	44	61	82	38	25	27	59	101	90	649
18.51-24.00	31	23	2	0	8	5	21	13	35	9	11	8	20	42	88	62	378
>24.00	13	0	0	0	0	0	11	3	25	6	4	13	7	27	45	7	161
TOTAL	185	60	34	44	51	63	103	139	186	183	94	72	90	170	305	276	2055

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-MAR 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 3/31/88

*** JAN-MAR ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2055

TOTAL NUMBER OF MISSING OBSERVATIONS: 129

PERCENT DATA RECOVERY FOR THIS PERIOD: 94.1 %

MEAN WIND SPEED FOR THIS PERIOD: 14.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
0.68	1.61	4.72	47.83	28.22	12.75	4.18

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	1	1	0	3	3	0	0	1	0	4	1	0
B	1	0	1	3	1	3	0	0	5	2	2	1	2	1	5	6	0
C	10	1	0	1	1	3	7	6	5	10	2	3	4	7	17	20	0
D	136	45	16	21	31	27	34	51	66	56	28	32	23	75	194	143	0
E	32	9	12	12	15	23	35	21	58	62	35	26	40	61	72	67	0
F	3	4	3	4	3	6	18	38	37	41	24	8	18	26	7	28	0
G	3	1	2	3	0	0	8	23	12	9	3	2	2	6	6	6	0
TOTAL	185	60	34	44	51	63	103	139	186	183	94	72	90	170	305	276	0

JFD's of 100m-Meter Wind vs. Delta T
April-June 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	4
7.51-12.50	2	0	1	0	0	3	9	3	2	0	0	0	0	0	0	0	20
12.51-18.50	2	1	3	1	1	1	3	14	11	3	0	0	0	0	1	1	42
18.51-24.00	1	1	0	0	0	0	2	3	21	3	0	0	0	0	1	0	32
>24.00	0	0	0	0	0	0	1	3	13	0	0	0	0	0	0	0	17
TOTAL	5	3	4	2	1	5	15	24	47	6	0	0	0	0	2	1	115

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	1	0	0	2	0	3	2	1	0	0	0	0	0	1	0	11
7.51-12.50	1	0	1	4	3	3	2	10	7	4	2	0	1	1	0	2	41
12.51-18.50	3	1	2	1	0	1	8	8	20	14	0	0	0	0	1	3	62
18.51-24.00	2	0	0	0	0	0	0	3	12	2	0	0	1	0	1	2	23
>24.00	0	0	0	0	0	0	2	1	9	0	0	0	0	4	0	0	16
TOTAL	7	2	3	5	5	4	15	24	49	20	2	0	2	5	3	7	153

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
3.51- 7.50	1	0	0	1	0	0	0	1	1	1	1	0	1	0	0	1	8
7.51-12.50	6	2	1	3	2	3	4	9	8	4	3	1	5	0	4	5	60
12.51-18.50	11	3	1	2	0	1	4	5	18	17	3	1	1	2	3	7	79
18.51-24.00	2	0	0	0	0	1	1	1	14	1	0	0	0	0	1	0	21
>24.00	0	0	0	0	0	0	0	2	6	1	0	0	1	5	1	2	18
TOTAL	21	6	2	6	2	5	9	18	47	24	8	2	8	7	9	15	189

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0	4
3.51- 7.50	3	7	3	2	3	4	9	3	7	7	1	2	3	5	6	2	67
7.51-12.50	18	10	14	12	10	10	13	22	29	21	12	11	5	4	19	18	228
12.51-18.50	25	23	21	26	10	10	9	15	36	15	7	8	4	4	11	13	237
18.51-24.00	12	9	1	5	10	9	6	14	31	7	1	1	10	7	8	9	140
>24.00	10	4	0	0	0	0	1	7	13	0	1	0	5	10	5	9	65
TOTAL	68	53	40	45	33	33	39	62	114	50	22	22	27	30	50	51	741

B100

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	1	0	0	1	0	0	0	0	0	0	1	0	0	1	5
3.51- 7.50	1	0	0	1	3	2	2	2	2	1	3	0	1	1	1	3	23
7.51-12.50	17	8	4	7	17	13	13	20	15	24	8	6	5	6	6	9	178
12.51-18.50	15	11	4	9	5	24	24	29	83	14	9	7	6	4	4	5	253
18.51-24.00	3	1	1	0	1	1	6	29	36	1	2	1	0	2	3	4	91
>24.00	0	0	0	0	1	0	0	9	3	0	0	0	0	2	6	1	22
TOTAL	36	21	10	17	27	41	45	89	139	40	22	14	13	15	20	23	572

B101

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	0	1	0	0	0	2	0	0	0	0	0	4
3.51- 7.50	2	3	2	2	2	3	0	1	2	5	1	0	0	2	0	0	25
7.51-12.50	6	7	2	0	2	5	10	16	15	12	4	3	1	2	1	1	87
12.51-18.50	2	4	1	0	2	1	8	6	28	9	3	5	2	4	7	8	90
18.51-24.00	0	0	0	1	1	0	1	0	2	0	0	0	0	3	0	2	10
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	10	15	5	3	7	9	20	23	47	26	10	8	3	11	8	11	216

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 4/ 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	1	0	0	1	0	0	1	0	0	0	0	0	0	2	0	6
3.51- 7.50	5	1	0	0	1	1	0	0	3	4	2	1	1	1	0	1	21
7.51-12.50	7	6	1	1	0	0	4	5	8	3	3	2	0	0	1	3	44
12.51-18.50	1	0	0	0	0	0	0	1	5	0	0	2	0	2	0	1	12
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	14	8	1	1	2	1	4	7	16	7	5	5	1	7	3	5	87

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	2	4	2	0	1	1	2	2	0	0	3	0	1	0	3	1	22
3.51- 7.50	13	13	5	7	11	11	14	10	16	18	8	3	6	9	8	7	159
7.51-12.50	57	33	24	27	34	37	55	85	84	68	32	23	17	13	31	38	658
12.51-18.50	59	43	32	39	18	38	56	78	201	72	22	23	13	16	27	38	775
18.51-24.00	20	11	2	6	12	11	16	50	116	14	3	2	11	15	14	17	320
>24.00	10	4	0	0	1	0	4	22	44	1	1	0	6	22	12	12	139
TOTAL	161	108	65	79	77	98	147	247	461	173	69	51	54	75	95	113	2073

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T APR-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/88 - 6/30/88

*** APR-JUNE 1988 ***

STABILITY BASED ON DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2073

TOTAL NUMBER OF MISSING OBSERVATIONS: 111

PERCENT DATA RECOVERY FOR THIS PERIOD: 94.9 %

MEAN WIND SPEED FOR THIS PERIOD: 14.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

B103

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
5.55	7.38	9.12	35.75	27.59	10.42	4.20

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	5	3	4	2	1	5	15	24	47	6	0	0	0	0	2	1	0
B	7	2	3	5	5	4	15	24	49	20	2	0	2	5	3	7	0
C	21	6	2	6	2	5	9	18	47	24	8	2	8	7	9	15	0
D	68	53	40	45	33	33	39	62	116	50	22	22	27	30	50	51	0
E	36	21	10	17	27	41	45	89	139	40	22	14	13	15	20	23	0
F	10	15	5	3	7	9	20	23	47	26	10	8	3	11	8	11	0
G	14	8	1	1	2	1	4	7	16	7	5	5	1	7	3	5	0
TOTAL	161	108	65	79	77	98	147	247	461	173	69	51	54	75	95	113	0

JFD's of 100m-Meter Wind vs. Delta T
January-June 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	1	0	1	0	2	0	1	0	0	0	0	1	0	0	0	6
7.51-12.50	2	0	1	0	0	3	9	3	2	0	0	0	0	0	0	0	20
12.51-18.50	2	1	3	1	1	1	4	14	11	3	0	0	0	0	2	2	45
18.51-24.00	1	1	0	0	0	0	2	3	12	3	0	0	0	0	2	0	34
>24.00	0	0	0	0	0	0	1	3	15	3	0	0	0	0	2	0	24
TOTAL	5	3	4	2	1	6	16	24	50	9	0	0	1	0	6	2	129

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	1	1	0	3	0	3	2	1	0	1	0	0	0	1	0	14
7.51-12.50	1	0	1	4	3	6	2	10	7	4	2	0	1	1	0	2	44
12.51-18.50	3	1	2	4	0	1	8	8	20	15	0	0	1	1	1	7	72
18.51-24.00	3	0	0	0	0	0	0	3	15	2	1	1	2	0	5	4	36
>24.00	0	0	0	0	0	0	2	1	11	1	0	0	0	4	1	0	20
TOTAL	8	2	4	8	6	7	15	24	54	22	4	1	4	6	8	13	186

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
3.51- 7.50	9	0	0	1	0	1	1	4	2	2	2	1	1	1	1	2	28
7.51-12.50	6	2	1	3	3	4	9	11	9	9	4	1	5	1	5	6	79
12.51-18.50	11	4	1	3	0	2	4	5	20	20	3	3	3	3	5	18	105
18.51-24.00	4	0	0	0	0	1	2	2	14	2	0	0	0	4	16	7	46
>24.00	0	0	0	0	0	0	0	2	7	1	0	0	1	5	5	2	25
TOTAL	31	7	2	7	3	8	16	24	52	34	10	5	12	14	26	35	286

B106

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	2	2	2	3	1	4	2	1	1	2	1	0	1	4	1	31
3.51- 7.50	36	19	7	7	13	15	16	14	18	19	8	4	5	8	14	16	219
7.51-12.50	46	14	16	19	21	17	23	41	42	30	17	18	11	15	44	57	431
12.51-18.50	59	30	28	33	12	15	19	25	57	43	16	29	13	31	79	60	540
18.51-24.00	36	29	3	5	15	12	10	23	43	12	4	2	14	24	66	50	348
>24.00	23	4	0	0	0	0	1	8	21	1	3	9	7	26	37	15	155
TOTAL	204	98	56	66	64	60	73	113	182	106	50	54	50	105	244	199	1724

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 10C-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	1	0	0	2	0	0	0	1	1	0	1	0	0	3	11
3.51- 7.50	4	5	3	4	4	4	4	3	3	9	4	2	7	4	4	9	73
7.51-12.50	30	8	10	15	25	26	22	29	28	40	15	12	13	19	28	35	355
12.51-18.50	27	11	7	10	8	29	27	38	99	48	29	15	20	27	32	25	452
18.51-24.00	7	4	1	0	4	3	18	31	53	3	-	7	9	15	16	16	194
>24.00	0	0	0	0	1	0	9	9	14	1	1	4	3	11	12	2	67
TOTAL	68	30	22	29	42	64	80	110	197	102	57	40	53	76	92	90	1152

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	0	0	0	1	1	0	2	0	3	1	0	1	0	0	11
3.51- 7.50	3	5	2	4	3	3	1	5	6	10	6	1	5	2	0	5	61
7.51-12.50	8	8	5	2	4	9	11	32	29	36	12	6	7	7	3	17	196
12.51-18.50	2	4	1	0	2	2	19	23	42	20	11	8	3	8	9	15	169
18.51-24.00	0	0	0	1	1	0	4	1	4	1	2	0	6	11	3	2	36
>24.00	0	0	0	0	0	0	2	0	1	0	0	0	0	2	0	0	5
TOTAL	13	19	8	7	10	15	38	61	84	67	34	16	21	31	15	39	478

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	1	0	0	1	0	0	1	0	0	0	0	0	0	2	2	8
3.51- 7.50	7	1	1	2	1	1	1	3	3	4	3	1	1	2	4	3	38
7.51-12.50	8	7	2	2	0	0	6	15	12	7	3	4	2	2	3	5	78
12.51-18.50	1	0	0	0	0	0	4	9	13	5	1	2	0	5	0	1	41
18.51-24.00	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0	4
>24.00	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0	0	4
TOTAL	17	9	3	4	2	1	12	30	28	16	8	7	3	13	9	11	173

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	6	8	3	2	4	4	5	3	3	2	7	2	1	2	6	6	64
3.51- 7.50	60	32	14	19	24	26	26	32	33	44	24	9	20	17	24	35	439
7.51-12.50	101	39	36	45	56	65	82	141	129	126	53	41	39	45	83	122	1203
12.51-18.50	105	33	42	51	23	50	85	122	262	154	60	48	40	75	128	128	1424
18.51-24.00	51	34	4	6	20	16	37	63	151	23	14	10	31	57	102	79	698
>24.00	23	4	0	0	1	0	15	25	69	7	5	13	13	49	57	19	300
TOTAL	346	168	99	123	128	161	250	386	647	356	163	123	144	245	400	389	4128

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATIO JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ /88 - 6/30/88

*** JAN-JUNE 1988 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4368

TOTAL NUMBER OF VALID OBSERVATIONS: 4128

TOTAL NUMBER OF MISSING OBSERVATIONS: 240

PERCENT DATA RECOVERY FOR THIS PERIOD: 94.5 %

MEAN WIND SPEED FOR THIS PERIOD: 14.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

B109

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.12	4.51	6.93	41.76	27.91	11.58	4.19

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	5	3	4	2	1	6	16	24	50	9	0	0	1	0	6	2	0
B	8	2	4	8	6	7	15	24	54	22	4	1	4	6	8	13	0
C	31	7	2	7	3	8	16	24	52	34	10	5	12	14	26	35	0
D	204	98	56	66	64	60	73	113	182	106	50	54	50	105	244	199	0
E	68	30	22	29	42	64	80	110	197	102	57	40	53	76	92	90	0
F	13	19	8	7	10	15	38	61	84	67	34	16	21	31	15	39	0
G	17	9	3	4	2	1	12	30	28	16	8	7	3	13	9	11	0
TOTAL	346	168	99	123	128	161	250	386	647	356	163	123	144	245	400	389	0

Stability Classes by Hour of Day
100-Meter Wind vs. Delta T
January-June 1988

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 10.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	1	1	D	D	D	D	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	F
88	1	2	F	F	F	F	E	E	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
88	1	3	E	E	E	E	E	E	E	E	E	D	D	C	C	C	D	D	D	D	D	D	D	D	D	D
88	1	4	D	D	D	E	E	D	D	D	D	D	D	D	C	C	D	D	D	D	D	E	E	E	E	E
88	1	5	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D
88	1	6	D	E	D	D	D	E	D	D	D	D	D	D	D	D	D	D	-	D	D	D	D	D	D	D
88	1	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
88	1	8	E	E	E	E	E	E	E	E	D	D	D	D	C	C	D	D	D	D	D	D	D	D	D	D
88	1	9	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F	F
88	1	10	F	F	F	F	E	F	F	E	E	D	D	C	D	D	D	D	D	D	D	D	D	D	D	D
88	1	11	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	-	-	-	-	-	D
88	1	12	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	1	13	E	E	E	E	E	E	F	F	F	D	D	D	B	D	D	D	D	E	F	F	F	F	F	F
88	1	14	E	E	D	D	D	D	D	E	D	D	D	D	D	C	D	D	D	E	E	E	E	E	E	E
88	1	15	E	E	F	F	F	F	E	F	F	F	D	D	D	D	D	D	D	E	E	E	E	E	E	E
88	1	16	E	E	E	E	E	E	E	-	-	-	D	D	D	D	D	D	D	E	E	F	F	F	E	F
88	1	17	F	F	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	E	-	G	G	G	G	G
88	1	18	G	G	G	G	G	G	G	G	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D
88	1	19	D	E	E	E	E	D	D	E	E	E	E	E	D	D	D	E	E	E	E	E	E	D	D	D
88	1	20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	1	21	D	D	D	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F
88	1	22	F	F	F	F	E	F	E	E	E	D	D	D	D	E	D	D	D	D	D	D	D	D	D	E
88	1	23	E	F	E	E	E	E	E	E	D	E	D	D	D	D	-	E	D	E	E	D	D	D	D	D
88	1	24	D	D	E	E	E	E	F	F	F	E	D	D	D	D	D	-	D	D	D	-	E	D	D	D
88	1	25	D	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	E	D
88	1	26	D	D	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
88	1	27	E	E	E	E	E	F	F	E	E	D	D	D	C	D	D	D	D	E	F	F	F	E	E	F
88	1	28	F	E	F	E	E	E	E	E	E	D	D	D	C	C	D	D	D	E	F	F	G	F	F	G
88	1	29	G	G	G	G	F	G	F	F	E	E	D	D	C	C	D	D	E	E	E	E	E	E	E	E
88	1	30	E	E	E	F	F	F	E	E	E	E	D	D	D	E	E	-	-	-	F	F	F	F	F	F
88	1	31	F	F	E	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	D
88	2	1	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	2	2	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	E	E	D	D	D	D
88	2	3	E	E	E	E	D	D	D	D	D	D	D	D	D	E	D	D	D	D	D	E	E	D	E	E
88	2	4	E	E	E	E	F	F	F	F	F	F	D	D	D	D	D	D	D	D	E	E	E	D	D	E
88	2	5	E	D	E	D	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F
88	2	6	F	F	F	E	E	F	F	F	F	E	D	D	D	C	D	D	D	D	E	E	E	E	E	E
88	2	7	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
88	2	8	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	-	-	E	D	D
88	2	9	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	D	D
88	2	10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	2	11	D	D	D	D	D	D	D	D	D	D	-	-	-	D	D	D	D	D	E	E	F	F	F	F
88	2	12	F	E	E	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F
88	2	13	F	F	F	G	G	G	F	F	E	E	E	C	D	C	D	D	D	E	F	F	F	F	F	F
88	2	14	F	F	F	F	F	E	F	E	D	-	-	-	-	-	E	D	D	D	D	D	-	-	D	

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	2	15	D	D	D	D	D	E	E	E	D	D	D	E	C	C	D	D	D	D	E	-	E	E	E	-
88	2	16	E	E	D	D	E	E	D	E	E	D	D	D	C	C	D	D	D	E	E	E	E	E	E	E
88	2	17	E	E	E	E	E	F	F	F	E	E	D	D	D	C	D	D	D	E	E	F	F	F	F	F
88	2	18	F	F	F	F	-	F	F	F	F	D	D	D	C	C	C	D	D	D	E	E	E	F	F	F
88	2	19	F	F	F	E	F	F	E	E	E	D	D	D	D	C	D	A	D	D	E	E	E	E	E	E
88	2	20	E	E	E	E	E	E	D	D	D	D	C	C	C	B	C	D	D	D	D	D	D	D	D	D
88	2	21	D	D	D	D	D	D	D	D	-	D	-	D	B	C	D	D	D	E	F	F	F	F	F	F
88	2	22	F	E	E	E	E	E	E	E	D	D	-	-	-	-	-	-	-	-	E	E	E	E	D	D
88	2	23	D	D	D	D	D	D	E	E	D	D	D	C	C	C	D	C	D	-	D	E	D	D	D	D
88	2	24	E	E	E	E	E	E	E	D	D	D	D	D	D	B	C	D	D	D	E	E	-	F	G	F
88	2	25	F	G	G	G	G	G	G	G	F	E	D	C	C	D	D	D	-	-	F	F	G	G	F	F
88	2	26	-	-	-	-	E	E	E	E	E	D	D	D	C	C	D	D	D	E	F	E	E	E	E	E
88	2	27	-	E	F	F	F	E	E	F	F	F	F	F	F	D	D	D	D	C	C	C	D	-	D	F
88	2	28	F	G	G	G	G	G	G	F	F	F	F	F	F	E	E	[illegible]	-	-	-	-	-	-	-	E
88	2	29	E	E	F	F	F	G	G	G	F	G	G	G	G	E	D	[illegible]	D	D	F	F	G	G	G	G
88	3	1	F	F	F	F	G	F	F	F	E	D	D	-	B	C	D	F	F	E	E	F	F	E	E	E
88	3	2	D	E	D	D	E	E	D	D	D	D	C	D	C	B	D	D	D	D	D	D	D	D	D	D
88	3	3	D	D	D	D	D	D	D	D	D	D	D	E	D	C	-	-	D	D	D	E	E	E	E	E
88	3	4	E	E	E	E	E	E	E	E	-	-	D	C	D	B	B	C	D	D	E	F	F	E	F	F
88	3	5	E	E	E	E	E	E	E	E	D	E	D	D	D	D	C	C	D	D	D	D	E	E	F	F
88	3	6	E	F	E	E	E	E	D	D	D	D	D	C	C	C	C	C	D	-	E	E	E	E	F	E
88	3	7	D	D	D	D	D	D	E	E	E	D	-	-	-	D	C	-	D	D	-	E	-	-	E	E
88	3	8	D	D	E	E	E	E	E	E	D	D	B	D	D	D	D	D	D	D	D	D	E	E	F	F
88	3	9	F	F	F	F	E	E	E	E	E	D	D	D	C	C	D	D	C	D	D	E	F	F	F	G
88	3	10	G	G	G	G	G	F	F	F	F	D	-	-	-	-	-	-	-	-	E	E	E	E	E	E
88	3	11	E	F	E	E	-	E	-	F	E	D	D	D	D	-	D	B	-	-	D	D	E	D	E	D
88	3	12	D	D	D	D	D	D	D	D	D	D	D	-	C	D	B	-	C	D	D	D	D	D	D	D
88	3	13	D	D	D	D	D	D	D	D	D	D	D	C	D	B	C	C	C	D	D	D	D	D	-	D
88	3	14	D	D	D	D	D	E	D	D	D	D	D	D	A	B	B	D	B	D	-	E	E	E	E	E
88	3	15	E	-	E	E	E	E	E	E	E	D	D	A	D	A	B	B	B	C	D	E	D	E	E	E
88	3	16	E	E	E	E	E	-	E	E	E	E	D	D	C	C	D	C	D	D	D	D	E	E	E	D
88	3	17	D	D	D	D	D	D	D	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F
88	3	18	F	F	E	E	E	E	E	E	E	D	D	D	C	C	C	B	C	D	-	F	F	G	G	G
88	3	19	G	G	F	F	F	G	G	F	E	D	D	C	D	D	C	-	-	-	E	F	G	G	G	G
88	3	20	G	F	E	E	E	E	E	F	-	-	-	-	-	A	D	D	E	-	-	F	G	-	G	G
88	3	21	G	F	E	E	E	E	E	E	D	E	D	E	C	-	-	A	C	D	D	E	E	E	E	E
88	3	22	F	F	F	F	F	F	F	F	D	E	-	F	-	B	D	E	-	G	-	-	-	E	D	D
88	3	23	D	E	E	E	E	E	E	F	E	D	D	B	D	B	C	A	B	D	D	E	D	E	E	E
88	3	24	D	D	D	E	D	D	D	D	D	D	E	-	-	E	-	E	D	-	-	-	-	E	E	E
88	3	25	F	F	E	-	F	E	E	E	E	E	E	D	B	C	C	D	D	D	E	E	D	D	E	E
88	3	26	E	E	E	E	E	[illegible]	E	E	D	D	D	A	D	D	D	B	-	-	-	F	F	F	F	G
88	3	27	G	G	G	G	G	F	E	E	E	D	A	A	A	A	A	B	-	-	D	E	E	F	G	G
88	3	28	E	E	-	E	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	3	29	D	E	D	D	D	D	D	D	D	D	D	D	D	C	C	D	C	D	D	E	F	F	G	G
88	3	30	G	G	F	F	F	F	F	E	E	D	C	B	A	B	B	B	C	D	D	D	E	E	E	-

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	3	31	E	-	E	E	E	E	E	E	D	D	D	D	D	B	B	B	C	D	D	D	D	-	D	-
88	4	1	F	G	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
88	4	2	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-	D	D	D	D	D	D	D	D	D
88	4	3	D	D	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	-	-	-
88	4	4	E	F	F	F	F	F	E	E	-	-	-	D	D	C	D	D	C	C	D	D	E	F	F	F
88	4	5	F	F	F	G	F	F	E	D	D	B	C	C	D	D	E	D	D	D	-	D	E	E	E	E
88	4	6	E	E	E	E	E	E	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	4	7	-	-	-	-	-	-	-	-	-	D	C	B	C	B	B	B	D	D	E	E	D	E	E	E
88	4	8	E	E	E	E	E	E	E	D	D	D	B	A	B	D	B	B	C	D	E	-	-	-	E	E
88	4	9	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
88	4	10	E	E	E	E	E	D	E	D	D	D	C	A	B	B	A	C	D	D	D	E	E	E	F	F
88	4	11	F	F	F	F	F	F	E	E	D	B	B	A	A	C	C	B	C	D	D	D	E	F	F	F
88	4	12	F	F	F	G	G	G	G	F	E	D	D	B	D	C	D	E	D	D	E	F	F	G	G	G
88	4	13	G	G	G	F	F	F	G	G	E	D	D	D	B	D	B	B	C	D	E	D	D	D	D	D
88	4	14	D	E	E	E	E	E	E	E	D	D	D	D	C	B	C	C	C	D	D	D	E	F	F	G
88	4	15	G	G	G	G	G	G	G	F	D	D	C	C	A	C	D	C	C	D	D	E	-	F	F	F
88	4	16	G	G	G	G	G	G	G	G	F	-	D	B	A	B	B	B	B	D	D	D	E	F	F	F
88	4	17	F	F	F	F	E	E	E	E	D	D	D	E	D	D	D	-	-	D	D	D	D	D	D	D
88	4	18	D	D	D	D	D	D	D	D	D	C	C	B	A	B	C	D	C	D	D	D	E	F	G	G
88	4	19	G	G	G	G	F	E	E	E	D	D	D	D	A	B	B	A	B	C	D	D	E	E	E	E
88	4	20	E	E	E	E	E	E	D	D	E	D	C	C	B	A	A	B	C	D	D	D	D	E	E	E
88	4	21	E	E	E	E	E	E	E	D	D	D	D	F	E	F	E	-	-	-	D	D	E	-	-	D
88	4	22	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D	D	E	-	D	D
88	4	23	D	D	D	D	D	D	D	D	D	D	D	C	B	B	C	D	D	D	D	E	E	F	F	G
88	4	24	G	G	G	G	G	F	F	F	D	C	C	B	B	-	-	-	C	-	-	-	E	-	-	-
88	4	25	-	-	E	E	E	E	E	F	E	D	C	B	D	-	-	-	-	-	-	-	D	D	D	D
88	4	26	E	E	E	E	E	E	E	E	D	D	D	C	D	C	D	D	D	D	D	D	D	D	D	E
88	4	27	D	E	E	-	-	-	-	-	D	A	B	D	A	B	C	C	C	D	D	D	E	E	F	F
88	4	28	F	G	G	G	-	-	-	F	E	D	D	C	B	A	C	B	B	-	-	E	F	F	E	E
88	4	29	F	F	F	F	F	F	F	E	E	E	B	A	A	A	A	B	C	D	D	E	E	E	E	F
88	4	30	F	F	F	G	G	F	E	D	D	C	B	B	C	B	C	D	D	D	D	E	E	F	F	E
88	5	1	E	E	E	E	E	E	E	D	D	C	-	A	A	A	B	A	C	-	D	E	E	E	E	E
88	5	2	E	E	E	E	F	E	E	E	D	C	B	B	A	A	-	-	-	-	E	D	D	D	E	E
88	5	3	E	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	E	-	-	E	D
88	5	4	D	D	D	D	D	D	D	D	D	D	D	C	D	C	D	-	-	D	D	-	-	F	F	F
88	5	5	F	F	F	F	-	E	E	E	E	-	-	-	-	D	-	-	C	D	D	D	E	F	F	G
88	5	6	G	F	F	F	F	E	E	E	D	D	C	A	A	B	A	A	B	C	D	D	D	E	E	E
88	5	7	E	E	E	E	D	E	E	D	D	D	C	B	A	A	A	B	B	C	D	D	D	D	D	D
88	5	8	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	B	C	D	D	D	D	D	D	D
88	5	9	D	D	D	D	D	D	D	D	D	C	C	B	B	B	B	C	C	D	D	D	E	F	F	G
88	5	10	G	G	G	G	G	F	E	E	D	D	D	D	D	C	C	D	D	D	D	E	F	G	G	G
88	5	11	F	F	F	F	F	E	E	E	D	D	D	D	D	C	D	D	D	C	D	D	D	E	E	E
88	5	12	F	F	G	G	F	F	G	E	D	D	C	C	B	C	B	C	C	C	D	D	F	F	F	F
88	5	13	F	F	G	F	E	D	D	D	D	D	C	C	A	B	B	B	C	D	D	D	D	E	E	E
88	5	14	E	E	E	E	E	F	F	E	D	C	B	A	A	A	B	D	D	D	D	D	E	E	E	E

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 200M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30/88

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	5	15	E	F	F	G	E	F	F	E	D	D	C	C	C	D	C	D	D	D	D	E	E	F	F	F
88	5	16	F	F	F	E	E	F	E	E	D	-	-	B	C	C	C	D	D	D	D	E	E	E	E	D
88	5	17	D	D	E	E	E	E	D	D	C	B	B	A	A	A	B	B	C	D	D	D	D	E	E	E
88	5	18	E	E	E	E	E	E	D	D	C	C	B	A	A	A	A	A	C	D	D	D	D	E	E	E
88	5	19	E	E	E	E	E	F	E	D	D	D	B	A	A	A	A	B	D	D	D	D	E	F	F	F
88	5	20	F	F	F	F	F	E	E	D	D	D	D	E	E	B	C	D	D	D	D	D	D	D	E	E
88	5	21	E	E	E	E	E	E	E	D	D	D	D	E	D	D	D	D	D	D	D	D	D	E	E	E
88	5	22	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
88	5	23	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
88	5	24	E	E	F	E	E	E	E	D	D	D	D	C	D	D	D	D	D	D	E	E	E	E	E	E
88	5	25	E	E	E	E	E	D	D	D	C	B	B	A	A	B	B	B	C	C	D	E	E	E	E	E
88	5	26	E	E	E	E	E	E	E	D	D	D	C	B	B	B	B	C	D	D	D	D	E	E	E	E
88	5	27	D	E	E	E	E	E	E	E	E	D	D	-	C	C	C	C	C	D	D	D	D	E	E	D
88	5	28	E	E	E	E	E	E	E	D	D	D	C	C	B	B	B	C	C	D	D	D	D	E	E	E
88	5	29	E	E	E	E	D	D	D	C	C	C	C	C	C	C	C	C	C	D	D	D	E	D	D	E
88	5	30	E	E	E	E	E	E	E	D	D	C	B	A	A	A	A	A	C	D	D	D	E	E	E	E
88	5	31	E	E	E	E	E	E	E	D	D	D	B	A	A	A	B	E	D	D	D	E	E	E	E	F
88	6	1	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
88	6	2	E	E	E	E	E	E	D	D	D	D	C	C	D	C	D	D	D	D	D	E	E	E	F	F
88	6	3	F	G	G	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	D	D
88	6	4	E	E	E	E	E	E	D	D	D	C	C	B	B	C	C	C	D	D	D	E	F	F	F	F
88	6	5	F	F	F	F	F	F	E	D	D	C	B	B	B	B	B	B	C	D	D	E	F	F	F	F
88	6	6	F	G	G	G	G	F	E	D	D	C	C	A	B	B	A	B	C	D	D	E	F	F	F	F
88	6	7	F	F	F	F	F	E	E	D	D	C	B	A	A	A	A	B	C	D	D	D	E	E	D	D
88	6	8	E	E	E	F	E	D	D	D	D	C	C	C	C	C	D	D	D	D	D	E	E	F	E	E
88	6	9	E	E	E	E	D	C	D	C	D	D	C	B	B	C	B	C	D	D	D	E	E	F	E	F
88	6	10	F	F	G	G	G	G	F	D	D	D	B	B	B	B	C	B	C	D	D	E	F	F	G	G
88	6	11	G	F	F	F	F	F	E	D	C	B	B	A	A	A	A	B	B	D	D	E	E	E	E	E
88	6	12	E	E	E	E	E	E	D	D	C	B	A	A	A	A	A	A	B	D	D	E	E	E	E	E
88	6	13	E	E	E	E	E	E	D	D	D	C	B	A	A	A	A	B	D	D	D	D	E	E	E	E
88	6	14	E	E	E	E	E	E	E	D	D	C	B	A	B	C	D	D	E	D	D	D	E	E	F	E
88	6	15	F	F	F	E	E	E	D	D	D	D	D	D	D	C	B	D	D	D	D	E	F	F	G	G
88	6	16	G	G	G	F	F	F	F	E	D	C	B	B	B	A	B	B	C	C	D	E	F	F	F	E
88	6	17	E	E	E	E	E	E	E	D	D	D	B	A	A	A	A	B	C	C	D	E	E	E	E	E
88	6	18	E	E	E	E	E	E	D	D	C	B	B	A	A	A	B	A	C	D	D	E	E	E	E	E
88	6	19	E	E	D	D	D	D	D	D	D	C	B	B	B	A	A	A	C	D	D	E	E	E	E	E
88	6	20	E	E	E	F	F	F	E	D	C	C	A	A	A	A	A	C	D	D	E	E	E	E	-	E
88	6	21	E	E	E	E	E	E	D	D	D	C	C	A	B	B	B	-	-	D	-	-	E	E	-	-
88	6	22	-	-	-	-	-	-	-	-	E	F	D	A	B	B	B	C	D	D	D	F	G	G	F	E
88	6	23	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	C	C	D	D	E	F	F	F	E
88	6	24	F	E	E	E	E	E	E	E	D	D	C	C	C	C	C	D	D	D	E	E	F	F	F	F
88	6	25	F	E	E	E	E	E	E	D	D	D	D	C	D	C	D	D	D	D	D	D	E	E	E	E
88	6	26	E	E	E	E	E	E	D	D	D	B	B	A	A	A	A	B	C	D	D	E	E	E	E	E
88	6	27	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	B	B	C	D	E	F	G	G	G
88	6	28	F	F	F	F	F	F	E	D	D	C	C	B	C	C	C	D	D	D	D	E	F	E	E	E

PROGRAM: JFD VERSION: 5P
NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA T JAN-JUNE 1988
SITE IDENTIFIER: NPPD
DATA PERIOD EXAMINED: 1/ 1/88 - 6/30

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

			HOURS																					
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
88	6	29	E	E	D	E	E	E	E	D	D	C	B	A	B	B	A	A	C	D	D	D	D	D	D	D
88	6	30	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

ATMOSPHERIC DIFFUSION ESTIMATES

The tables of atmospheric diffusion estimates in this section were generated using the computer code XOQDOQ. Data are given for 22 distances an 16 compass points (directions from site) centered on the Cooper Nuclear Station. Tables are presented for the ground-level (vent) and elevated (stack) release options separately, and for the following time periods: January-March, April-June, and January-June 1988.

Atmospheric Diffusion Estimates
Ground Level Releases
January-March 1988

VENTS GROUND LEVEL RELEASES - JAN-MAR 1988
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	4.888E-05	1.613E-05	8.443E-06	4.196E-06	1.701E-06	9.269E-07	5.996E-07	4.140E-07	3.095E-07	2.422E-07	1.962E-07
SSW	3.192E-05	1.012E-05	5.235E-06	2.604E-06	1.071E-06	5.893E-07	3.783E-07	2.668E-07	2.004E-07	1.575E-07	1.280E-07
SW	2.071E-05	6.635E-06	3.433E-06	1.705E-06	7.003E-07	3.852E-07	2.472E-07	1.743E-07	1.309E-07	1.028E-07	8.358E-08
WSW	1.237E-05	4.080E-06	2.122E-06	1.052E-06	4.264E-07	2.323E-07	1.479E-07	1.037E-07	7.746E-08	6.059E-08	4.904E-08
W	1.249E-05	3.975E-06	2.041E-06	1.012E-06	4.179E-07	2.306E-07	1.483E-07	1.047E-07	7.878E-08	6.197E-08	5.041E-08
WNW	1.494E-05	4.738E-06	2.461E-06	1.227E-06	5.050E-07	2.782E-07	1.787E-07	1.261E-07	9.480E-08	7.454E-08	6.061E-08
NW	4.423E-05	1.375E-05	7.157E-06	3.582E-06	1.485E-06	8.220E-07	5.297E-07	3.747E-07	2.822E-07	2.222E-07	1.810E-07
NNW	8.399E-05	2.542E-05	1.326E-05	6.684E-06	2.803E-06	1.562E-06	1.012E-06	7.183E-07	5.426E-07	4.284E-07	3.496E-07
N	8.361E-05	2.568E-05	1.340E-05	6.738E-06	2.819E-06	1.569E-06	1.015E-06	7.203E-07	5.438E-07	4.291E-07	3.500E-07
NNE	4.825E-05	1.545E-05	8.256E-06	4.153E-06	1.704E-06	9.346E-07	5.984E-07	4.211E-07	3.158E-07	2.478E-07	2.011E-07
NE	2.057E-05	6.766E-06	3.688E-06	1.871E-06	7.580E-07	4.127E-07	2.627E-07	1.840E-07	1.374E-07	1.074E-07	8.692E-08
ENE	1.400E-05	4.608E-06	2.532E-06	1.289E-06	5.218E-07	2.839E-07	1.807E-07	1.265E-07	9.443E-08	7.382E-08	5.971E-08
E	1.474E-05	4.789E-06	2.582E-06	1.305E-06	5.299E-07	2.892E-07	1.844E-07	1.293E-07	9.673E-08	7.572E-08	6.134E-08
ESE	2.146E-05	7.411E-06	4.054E-06	2.044E-06	8.119E-07	4.361E-07	2.747E-07	1.908E-07	1.415E-07	1.100E-07	8.849E-08
SE	3.296E-05	1.147E-05	6.202E-06	3.105E-06	1.228E-06	6.573E-07	4.131E-07	2.864E-07	2.121E-07	1.646E-07	1.323E-07
SSE	3.617E-05	1.244E-05	6.650E-06	3.313E-06	1.305E-06	6.970E-07	4.372E-07	3.027E-07	2.238E-07	1.735E-07	1.394E-07

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	1.631E-07	8.540E-08	5.610E-08	3.281E-08	2.254E-08	1.688E-08	1.335E-08	1.095E-08	9.236E-09	7.951E-09	6.957E-09
SSW	1.068E-07	5.662E-08	3.751E-08	2.220E-08	1.537E-08	1.158E-08	9.205E-09	7.585E-09	6.419E-09	5.543E-09	4.863E-09
SW	6.971E-08	3.691E-08	2.443E-08	1.445E-08	1.000E-08	7.534E-09	5.986E-09	4.932E-09	4.173E-09	3.603E-09	3.161E-09
WSW	4.077E-08	2.130E-08	1.397E-08	8.155E-09	5.589E-09	4.179E-09	3.300E-09	2.706E-09	2.280E-09	1.962E-09	1.716E-09
W	4.209E-08	2.236E-08	1.484E-08	8.794E-09	6.092E-09	4.592E-09	3.650E-09	3.009E-09	2.547E-09	2.200E-09	1.931E-09
WNW	5.060E-08	2.689E-08	1.784E-08	1.058E-08	7.325E-09	5.520E-09	4.387E-09	3.615E-09	3.059E-09	2.642E-09	2.318E-09
NW	1.512E-07	8.060E-08	5.359E-08	3.187E-08	2.214E-08	1.672E-08	1.331E-08	1.098E-08	9.307E-09	8.044E-09	7.063E-09
NNW	2.927E-07	1.571E-07	1.049E-07	6.272E-08	4.371E-08	3.309E-08	2.638E-08	2.180E-08	1.850E-08	1.600E-08	1.406E-08
N	2.929E-07	1.569E-07	1.047E-07	6.251E-08	4.351E-08	3.291E-08	2.623E-08	2.166E-08	1.837E-08	1.588E-08	1.395E-08
NNE	1.676E-07	8.840E-08	5.835E-08	3.435E-08	2.370E-08	1.781E-08	1.411E-08	1.160E-08	9.801E-09	8.447E-09	7.398E-09
NE	7.222E-08	3.765E-08	2.465E-08	1.434E-08	9.804E-09	7.315E-09	5.765E-09	4.717E-09	3.967E-09	3.407E-09	2.974E-09
ENE	4.961E-08	2.586E-08	1.692E-08	9.836E-09	6.719E-09	5.008E-09	3.944E-09	3.225E-09	2.710E-09	2.326E-09	2.030E-09
E	5.102E-08	2.672E-08	1.755E-08	1.026E-08	7.047E-09	5.276E-09	4.169E-09	3.420E-09	2.882E-09	2.479E-09	2.168E-09
ESE	7.318E-08	3.747E-08	2.421E-08	1.384E-08	9.344E-09	6.905E-09	5.399E-09	4.389E-09	3.670E-09	3.136E-09	2.725E-09
SE	1.093E-07	5.581E-08	3.601E-08	2.052E-08	1.384E-08	1.021E-08	7.978E-09	6.481E-09	5.417E-09	4.626E-09	4.019E-09
SSE	1.151E-07	5.862E-08	3.776E-08	2.150E-08	1.451E-08	1.071E-08	8.376E-09	6.808E-09	5.694E-09	4.866E-09	4.230E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
				SEGMENT BOUNDARIES IN MILES						
S	8.264E-06	1.911E-06	6.096E-07	3.137E-07	1.976E-07	8.965E-08	3.342E-08	1.697E-08	1.098E-08	7.964E-09
SSW	5.152E-06	1.197E-06	3.900E-07	2.030E-07	1.289E-07	5.928E-08	2.257E-08	1.164E-08	7.604E-09	5.551E-09
SW	3.376E-06	7.834E-07	2.548E-07	1.326E-07	8.415E-08	3.865E-08	1.469E-08	7.573E-09	4.944E-09	3.608E-09
WSW	2.082E-06	4.793E-07	1.527E-07	7.852E-08	4.940E-08	2.237E-08	8.307E-09	4.204E-09	2.714E-09	1.965E-09
W	2.014E-06	4.666E-07	1.528E-07	7.979E-08	5.075E-08	2.340E-08	8.936E-09	4.616E-09	3.016E-09	2.203E-09
WNW	2.418E-06	5.646E-07	1.842E-07	9.603E-08	6.103E-08	2.814E-08	1.075E-08	5.548E-09	3.624E-09	2.646E-09
NW	7.034E-06	1.657E-06	5.457E-07	2.858E-07	1.822E-07	8.429E-08	3.237E-08	1.680E-08	1.101E-08	8.053E-09
NNW	1.304E-05	3.114E-06	1.041E-06	5.493E-07	3.519E-07	1.640E-07	6.364E-08	3.324E-08	2.185E-08	1.602E-08
N	1.317E-05	3.134E-06	1.045E-06	5.505E-07	3.523E-07	1.639E-07	6.344E-08	3.306E-08	2.171E-08	1.590E-08
NNE	8.036E-06	1.908E-06	6.172E-07	3.200E-07	2.026E-07	9.265E-08	3.495E-08	1.790E-08	1.163E-08	8.460E-09
NE	3.565E-06	8.520E-07	2.712E-07	1.393E-07	8.755E-08	3.955E-08	1.461E-08	7.358E-09	4.731E-09	3.413E-09
ENE	2.441E-06	5.866E-07	1.865E-07	9.574E-08	6.015E-08	2.716E-08	1.003E-08	5.039E-09	3.234E-09	2.330E-09
E	2.505E-06	5.951E-07	1.903E-07	9.804E-08	6.178E-08	2.804E-08	1.045E-08	5.305E-09	3.429E-09	2.483E-09
ESE	3.907E-06	9.187E-07	2.842E-07	1.436E-07	8.918E-08	3.951E-08	1.415E-08	6.953E-09	4.404E-09	3.142E-09
SE	5.9 -06	1.391E-06	4.276E-07	2.152E-07	1.334E-07	5.890E-08	2.099E-08	1.029E-08	6.503E-09	4.635E-09
SSE	6. -06	1.481E-06	4.527E-07	2.272E-07	1.405E-07	6.190E-08	2.201E-08	1.079E-08	6.831E-09	4.875E-09

VENTS GROUND LEVEL RELEASES - JAN-MAR 1988
2.260 DAY 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	4.880E-05	1.608E-05	8.407E-06	4.172E-06	1.686E-06	9.157E-07	5.816E-07	4.064E-07	3.028E-07	2.362E-07	1.906E-07
SSW	3.186E-05	1.009E-05	5.208E-06	2.585E-06	1.059E-06	5.806E-07	3.712E-07	2.608E-07	1.951E-07	1.527E-07	1.236E-07
SW	2.067E-05	6.611E-06	3.414E-06	1.692E-06	6.925E-07	3.795E-07	2.425E-07	1.703E-07	1.274E-07	9.970E-08	8.070E-08
WSW	1.235E-05	4.067E-06	2.113E-06	1.046E-06	4.225E-07	2.294E-07	1.456E-07	1.017E-07	7.570E-08	5.901E-08	4.760E-08
W	1.247E-05	3.962E-06	2.031E-06	1.006E-06	4.138E-07	2.275E-07	1.458E-07	1.026E-07	7.688E-08	6.025E-08	4.883E-08
WNW	1.492E-05	4.723E-06	2.450E-06	1.219E-06	5.003E-07	2.747E-07	1.759E-07	1.237E-07	9.265E-08	7.260E-08	5.883E-08
NW	4.415E-05	1.371E-05	7.121E-06	3.558E-06	1.470E-06	8.106E-07	5.204E-07	3.668E-07	2.752E-07	2.159E-07	1.752E-07
NNW	8.382E-05	2.532E-05	1.319E-05	6.633E-06	2.770E-06	1.537E-06	9.917E-07	7.014E-07	5.277E-07	4.150E-07	3.373E-07
N	8.346E-05	2.559E-05	1.333E-05	6.692E-06	2.790E-06	1.547E-06	9.974E-07	7.052E-07	5.305E-07	4.171E-07	3.390E-07
NNE	4.817E-05	1.540E-05	8.219E-06	4.138E-06	1.688E-06	9.231E-07	5.891E-07	4.132E-07	3.088E-07	2.415E-07	1.954E-07
NE	2.054E-05	6.746E-06	3.673E-06	1.861E-06	7.514E-07	4.079E-07	2.588E-07	1.807E-07	1.345E-07	1.049E-07	8.457E-08
ENE	1.398E-05	4.596E-06	2.522E-06	1.282E-06	5.177E-07	2.809E-07	1.782E-07	1.244E-07	9.265E-08	7.222E-08	5.825E-08
E	1.472E-05	4.778E-06	2.674E-06	1.299E-06	5.264E-07	2.866E-07	1.823E-07	1.276E-07	9.516E-08	7.431E-08	6.005E-08
ESE	2.144E-05	7.397E-06	4.042E-06	2.036E-06	8.072E-07	4.327E-07	2.720E-07	1.885E-07	1.395E-07	1.082E-07	8.686E-08
SE	3.293E-05	1.145E-05	6.187E-06	3.095E-06	1.221E-06	6.529E-07	4.096E-07	2.834E-07	2.095E-07	1.623E-07	1.302E-07
SSE	3.613E-05	1.241E-05	6.631E-06	3.300E-06	1.297E-06	6.914E-07	4.327E-07	2.989E-07	2.206E-07	1.706E-07	1.367E-07

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	1.580E-07	8.133E-08	5.253E-08	2.971E-08	1.975E-08	1.432E-08	1.097E-08	8.725E-09	7.137E-09	5.963E-09	5.067E-09
SSW	1.027E-07	5.339E-08	3.467E-08	1.973E-08	1.314E-08	9.538E-09	7.305E-09	5.808E-09	4.745E-09	3.959E-09	3.359E-09
SW	6.704E-08	3.479E-08	2.257E-08	1.283E-08	8.544E-09	6.197E-09	4.745E-09	3.770E-09	3.079E-09	2.568E-09	2.177E-09
WSW	3.942E-08	2.024E-08	1.304E-08	7.344E-09	4.860E-09	3.511E-09	2.680E-09	2.126E-09	1.734E-09	1.445E-09	1.225E-09
W	4.062E-08	2.118E-08	1.379E-08	7.880E-09	5.265E-09	3.830E-09	2.941E-09	2.344E-09	1.920E-09	1.606E-09	1.366E-09
WNW	4.894E-08	2.556E-08	1.667E-08	9.554E-09	6.401E-09	4.670E-09	3.595E-09	2.873E-09	2.359E-09	1.977E-09	1.685E-09
NW	1.458E-07	7.630E-08	4.980E-08	2.856E-08	1.915E-08	1.397E-08	1.075E-08	8.589E-09	7.049E-09	5.906E-09	5.030E-09
NNW	2.813E-07	1.479E-07	9.685E-08	5.570E-08	3.738E-08	2.728E-08	2.099E-08	1.676E-08	1.375E-08	1.151E-08	9.795E-09
N	2.827E-07	1.487E-07	9.746E-08	5.617E-08	3.778E-08	2.764E-08	2.133E-08	1.707E-08	1.403E-08	1.178E-08	1.005E-08
NNE	1.623E-07	8.420E-08	5.468E-08	3.117E-08	2.084E-08	1.519E-08	1.168E-08	9.331E-09	7.659E-09	6.420E-09	5.472E-09
NE	7.005E-08	3.595E-08	2.317E-08	1.307E-08	8.670E-09	6.280E-09	4.809E-09	3.825E-09	3.130E-09	2.616E-09	2.224E-09
ENE	4.826E-08	2.480E-08	1.601E-08	9.050E-09	6.016E-09	4.368E-09	3.352E-09	2.673E-09	2.192E-09	1.836E-09	1.565E-09
E	4.982E-08	2.577E-08	1.672E-08	9.540E-09	6.397E-09	4.678E-09	3.613E-09	2.899E-09	2.390E-09	2.013E-09	1.724E-09
ESE	7.167E-08	3.629E-08	2.320E-08	1.297E-08	8.572E-09	6.201E-09	4.749E-09	3.783E-09	3.101E-09	2.598E-09	2.215E-09
SE	1.074E-07	5.429E-08	3.469E-08	1.939E-08	1.283E-08	9.286E-09	7.122E-09	5.679E-09	4.661E-09	3.910E-09	3.338E-09
SSE	1.126E-07	5.672E-08	3.612E-08	2.010E-08	1.325E-08	9.569E-09	7.316E-09	5.818E-09	4.762E-09	3.984E-09	3.392E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.230E-06	1.896E-06	6.006E-07	3.070E-07	1.920E-07	8.557E-08	3.035E-08	1.442E-08	8.761E-09	5.979E-09
SSW	5.126E-06	1.186E-06	3.829E-07	1.977E-07	1.245E-07	5.604E-08	2.012E-08	9.606E-09	5.831E-09	3.970E-09
SW	3.359E-06	7.755E-07	2.502E-07	1.291E-07	8.127E-08	3.653E-08	1.309E-08	6.242E-09	3.785E-09	2.575E-09
WSW	2.073E-06	4.753E-07	1.504E-07	7.676E-08	4.795E-08	2.130E-08	7.505E-09	3.538E-09	2.135E-09	1.449E-09
W	2.005E-06	4.625E-07	1.503E-07	7.790E-08	4.917E-08	2.222E-08	8.032E-09	3.857E-09	2.353E-09	1.610E-09
WNW	2.408E-06	5.598E-07	1.814E-07	9.388E-08	5.925E-08	2.681E-08	9.735E-09	4.702E-09	2.883E-09	1.982E-09
NW	7.001E-06	1.641E-06	5.364E-07	2.788E-07	1.764E-07	7.997E-08	2.910E-08	1.407E-08	8.621E-09	5.920E-09
NNW	1.297E-05	3.081E-06	1.021E-06	5.344E-07	3.396E-07	1.549E-07	5.670E-08	2.746E-08	1.682E-08	1.154E-08
N	1.310E-05	3.105E-06	1.027E-06	5.372E-07	3.413E-07	1.557E-07	5.717E-08	2.782E-08	1.713E-08	1.181E-08
NNE	8.002E-06	1.893E-06	6.078E-07	3.130E-07	1.968E-07	8.844E-08	3.180E-08	1.529E-08	9.366E-09	6.436E-09
NE	3.550E-06	8.452E-07	2.673E-07	1.364E-07	8.520E-08	3.785E-08	1.336E-08	6.329E-09	3.841E-09	2.623E-09
ENE	2.432E-06	5.824E-07	1.841E-07	9.395E-08	5.869E-08	2.611E-08	9.248E-09	4.401E-09	2.683E-09	1.841E-09
E	2.497E-06	5.916E-07	1.882E-07	9.647E-08	6.049E-08	2.709E-08	9.738E-09	4.710E-09	2.909E-09	2.018E-09
ESE	3.896E-06	9.139E-07	2.814E-07	1.416E-07	8.755E-08	3.834E-08	1.329E-08	6.253E-09	3.799E-09	2.605E-09
SE	5.982E-06	1.385E-06	4.240E-07	2.126E-07	1.312E-07	5.737E-08	1.987E-08	9.365E-09	5.704E-09	3.921E-09
SSE	6.436E-06	1.473E-06	4.482E-07	2.239E-07	1.379E-07	5.999E-08	2.062E-08	9.650E-09	5.844E-09	3.995E-09

VENTS GROUND LEVEL RELEASES - JAN-MAR 1988
8.000 DAY DECAY, DEPLETED
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	4.624E-05	1.472E-05	7.515E-06	3.667E-06	1.441E-06	7.649E-07	4.763E-07	3.271E-07	2.400E-07	1.846E-07	1.471E-07
SSW	3.019E-05	9.234E-06	4.658E-06	2.274E-06	9.065E-07	4.859E-07	3.048E-07	2.105E-07	1.552E-07	1.198E-07	9.583E-08
SW	1.959E-05	6.053E-06	3.055E-06	1.489E-06	5.928E-07	3.176E-07	1.991E-07	1.375E-07	1.013E-07	7.825E-08	6.256E-08
WSW	1.170E-05	3.722E-06	1.889E-06	9.197E-07	3.612E-07	1.917E-07	1.193E-07	8.189E-08	6.005E-08	4.616E-08	3.677E-08
W	1.182E-05	3.627E-06	1.816E-06	8.842E-07	3.559E-07	1.902E-07	1.196E-07	8.271E-08	6.104E-08	4.719E-08	3.777E-08
WNW	1.411E-05	4.323E-06	2.190E-06	1.072E-06	4.277E-07	2.295E-07	1.441E-07	9.963E-08	7.349E-08	5.679E-08	4.543E-08
NW	4.284E-05	1.255E-05	6.369E-06	3.130E-06	1.258E-06	6.780E-07	4.269E-07	2.958E-07	2.186E-07	1.692E-07	1.356E-07
NNW	7.944E-05	2.319E-05	1.180E-05	5.838E-06	2.372E-06	1.288E-06	8.148E-07	5.667E-07	4.201E-07	3.254E-07	2.616E-07
N	7.909E-05	2.342E-05	1.192E-05	5.886E-06	2.387E-06	1.294E-06	8.181E-07	5.687E-07	4.213E-07	3.268E-07	2.623E-07
NNE	4.564E-05	1.410E-05	7.348E-06	3.638E-06	1.443E-06	7.712E-07	4.826E-07	3.327E-07	2.449E-07	1.888E-07	1.508E-07
NE	1.946E-05	6.173E-06	3.283E-06	1.635E-06	6.422E-07	3.406E-07	2.119E-07	1.454E-07	1.066E-07	8.190E-08	6.521E-08
ENE	1.324E-05	4.205E-06	2.253E-06	1.127E-06	4.421E-07	2.344E-07	1.458E-07	1.000E-07	7.329E-08	5.631E-08	4.483E-08
E	1.395E-05	4.370E-06	2.299E-06	1.141E-06	4.492E-07	2.388E-07	1.489E-07	1.023E-07	7.513E-08	5.782E-08	4.609E-08
ESE	2.031E-05	6.764E-06	3.610E-06	1.787E-06	6.884E-07	3.603E-07	2.219E-07	1.510E-07	1.100E-07	8.401E-08	6.655E-08
SE	3.118E-05	1.047E-05	5.523E-06	2.715E-06	1.041E-06	5.433E-07	3.338E-07	2.268E-07	1.649E-07	1.258E-07	9.957E-08
SSE	3.422E-05	1.135E-05	5.921E-06	2.897E-06	1.106E-06	5.758E-07	3.531E-07	2.395E-07	1.739E-07	1.326E-07	1.048E-07

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	1.205E-07	5.436E-08	3.698E-08	1.982E-08	1.266E-08	8.890E-09	6.633E-09	5.158E-09	4.136E-09	3.394E-09	2.837E-09
SSW	7.874E-08	3.924E-08	2.463E-08	1.334E-08	8.571E-09	6.047E-09	4.526E-09	3.529E-09	2.835E-09	2.330E-09	1.950E-09
SW	5.139E-08	2.558E-08	1.604E-08	8.677E-09	5.575E-09	3.933E-09	2.944E-09	2.295E-09	1.843E-09	1.515E-09	1.268E-09
WSW	3.610E-08	1.480E-08	9.201E-09	4.917E-09	3.131E-09	2.195E-09	1.634E-09	1.269E-09	1.016E-09	8.327E-10	6.952E-10
W	3.105E-08	1.552E-08	9.758E-09	5.295E-09	3.406E-09	2.406E-09	1.802E-09	1.406E-09	1.131E-09	9.301E-10	7.790E-10
WNW	3.736E-08	1.868E-08	1.175E-08	6.383E-09	4.110E-09	2.905E-09	2.178E-09	1.701E-09	1.368E-09	1.126E-09	9.441E-10
NW	1.116E-07	5.593E-08	3.524E-08	1.919E-08	1.238E-08	8.765E-09	6.579E-09	5.142E-09	4.139E-09	3.409E-09	2.858E-09
NNW	2.157E-07	1.088E-07	6.886E-08	3.767E-08	2.437E-08	1.728E-08	1.298E-08	1.015E-08	8.180E-09	6.739E-09	5.652E-09
N	2.161E-07	1.089E-07	6.889E-08	3.767E-08	2.436E-08	1.728E-08	1.299E-08	1.016E-08	8.190E-09	6.752E-09	5.666E-09
NNE	1.238E-07	6.145E-08	3.847E-08	2.076E-08	1.332E-08	9.394E-09	7.029E-09	5.481E-09	4.404E-09	3.621E-09	3.032E-09
NE	5.357E-08	2.619E-08	1.626E-08	8.676E-09	5.521E-09	3.867E-09	2.878E-09	2.234E-09	1.788E-09	1.465E-09	1.223E-09
ENE	3.669E-08	1.801E-08	1.119E-08	5.969E-09	3.797E-09	2.660E-09	1.980E-09	1.537E-09	1.231E-09	1.009E-09	8.426E-10
E	3.777E-08	1.864E-08	1.163E-08	6.245E-09	3.998E-09	2.815E-09	2.104E-09	1.640E-09	1.318E-09	1.084E-09	9.077E-10
ESE	5.423E-08	2.617E-08	1.607E-08	8.442E-09	5.319E-09	3.699E-09	2.739E-09	2.117E-09	1.689E-09	1.381E-09	1.150E-09
SE	8.107E-08	3.904E-08	2.393E-08	1.255E-08	7.902E-09	5.494E-09	4.067E-09	3.144E-09	2.509E-09	2.051E-09	1.709E-09
SSE	8.527E-08	4.094E-08	2.505E-08	1.311E-08	8.249E-09	5.732E-09	4.242E-09	3.277E-09	2.614E-09	2.136E-09	1.779E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

SEGMENT BOUNDARIES IN MILES

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	7.405E-06	1.635E-06	4.936E-07	2.438E-07	1.484E-07	6.300E-08	2.045E-08	8.991E-09	5.190E-09	3.408E-09
SSW	4.616E-06	1.024E-06	3.154E-07	1.575E-07	9.661E-08	4.153E-08	1.373E-08	6.112E-09	3.550E-09	2.339E-09
SW	3.025E-06	6.697E-07	2.061E-07	1.029E-07	6.307E-08	2.708E-08	8.935E-09	3.975E-09	2.308E-09	1.521E-09
WSW	1.865E-06	4.100E-07	1.236E-07	6.100E-08	3.700E-08	1.571E-08	5.076E-09	2.220E-09	1.277E-09	8.361E-10
W	1.804E-06	3.990E-07	1.237E-07	6.196E-08	3.807E-08	1.641E-08	5.447E-09	2.431E-09	1.414E-09	9.336E-10
WNW	2.167E-06	4.828E-07	1.491E-07	7.460E-08	4.581E-08	1.975E-08	6.566E-09	2.935E-09	1.710E-09	1.131E-09
NW	6.302E-06	1.416E-06	4.414E-07	2.219E-07	1.366E-07	5.910E-08	1.973E-08	8.855E-09	5.170E-09	3.421E-09
NNW	1.168E-05	2.660E-06	8.416E-07	4.261E-07	2.637E-07	1.148E-07	3.869E-08	1.745E-08	1.021E-08	6.763E-09
N	1.180E-05	2.679E-06	8.452E-07	4.274E-07	2.643E-07	1.150E-07	3.869E-08	1.745E-08	1.022E-08	6.776E-09
NNE	7.199E-06	1.632E-06	4.996E-07	2.486E-07	1.521E-07	6.509E-08	2.139E-08	9.496E-09	5.513E-09	3.635E-09
NE	3.193E-06	7.289E-07	2.196E-07	1.083E-07	6.577E-08	2.782E-08	8.960E-09	3.912E-09	2.248E-09	1.471E-09
ENE	2.186E-06	5.019E-07	1.511E-07	7.445E-08	4.522E-08	1.913E-08	6.163E-09	2.691E-09	1.547E-09	1.013E-09
E	2.245E-06	5.094E-07	1.542E-07	7.630E-08	4.648E-08	1.977E-08	6.442E-09	2.846E-09	1.650E-09	1.088E-09
ESE	3.501E-06	7.868E-07	2.305E-07	1.118E-07	6.716E-08	2.792E-08	8.749E-09	3.747E-09	2.132E-09	1.387E-09
SE	5.374E-06	1.192E-06	3.469E-07	1.677E-07	1.005E-07	4.166E-08	1.301E-08	5.565E-09	3.166E-09	2.060E-09
SSE	5.784E-06	1.268E-06	3.671E-07	1.769E-07	1.058E-07	4.373E-08	1.360E-08	5.807E-09	3.300E-09	2.146E-09

VENTS GROUND LEVEL RELEASES - JAN-MAR 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	DISTANCES IN MILES 0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	2.010E-07	6.796E-08	3.489E-08	1.659E-08	5.959E-09	2.955E-09	1.740E-09	1.139E-09	8.017E-10	5.941E-10	4.578E-10
SSW	9.718E-08	3.286E-08	1.687E-08	8.022E-09	2.882E-09	1.429E-09	8.414E-10	5.510E-10	3.877E-10	2.873E-10	2.214E-10
SW	4.814E-08	1.628E-08	8.358E-09	3.973E-09	1.427E-09	7.078E-10	4.168E-10	2.729E-10	1.920E-10	1.423E-10	1.097E-10
WSW	4.676E-08	1.581E-08	8.119E-09	3.860E-09	1.387E-09	6.876E-10	4.049E-10	2.651E-10	1.865E-10	1.383E-10	1.065E-10
W	4.468E-08	1.511E-08	7.758E-09	3.688E-09	1.325E-09	6.570E-10	3.868E-10	2.533E-10	1.782E-10	1.321E-10	1.018E-10
WNW	5.441E-08	1.840E-08	9.446E-09	4.491E-09	1.613E-09	8.000E-10	4.711E-10	3.084E-10	2.170E-10	1.608E-10	1.239E-10
NW	1.354E-07	4.577E-08	2.350E-08	1.117E-08	4.014E-09	1.990E-09	1.172E-09	7.674E-10	5.400E-10	4.002E-10	3.084E-10
NNW	1.847E-07	6.246E-08	3.207E-08	1.525E-08	5.477E-09	2.716E-09	1.599E-09	1.047E-09	7.369E-10	5.461E-10	4.208E-10
N	2.512E-07	8.494E-08	4.361E-08	2.073E-08	7.447E-09	3.693E-09	2.175E-09	1.424E-09	1.002E-09	7.426E-10	5.722E-10
NNE	1.893E-07	6.400E-08	3.286E-08	1.562E-08	5.612E-09	2.783E-09	1.639E-09	1.073E-09	7.550E-10	5.596E-10	4.312E-10
NE	8.590E-08	2.905E-08	1.491E-08	7.090E-09	2.547E-09	1.263E-09	7.437E-10	4.870E-10	3.427E-10	2.539E-10	1.957E-10
ENE	7.489E-08	2.533E-08	1.300E-08	6.182E-09	2.221E-09	1.101E-09	6.484E-10	4.246E-10	2.988E-10	2.214E-10	1.706E-10
E	8.457E-08	2.860E-08	1.468E-08	6.981E-09	2.508E-09	1.244E-09	7.322E-10	4.795E-10	3.374E-10	2.500E-10	1.927E-10
ESE	1.689E-07	5.712E-08	2.933E-08	1.394E-08	5.008E-09	2.484E-09	1.462E-09	9.576E-10	6.738E-10	4.994E-10	3.848E-10
SE	2.964E-07	1.002E-07	5.146E-08	2.447E-08	8.788E-09	4.358E-09	2.566E-09	1.680E-09	1.182E-09	8.763E-10	6.753E-10
SSE	2.695E-07	9.112E-08	4.678E-08	2.224E-08	7.989E-09	3.962E-09	2.333E-09	1.528E-09	1.075E-09	7.966E-10	6.139E-10

DIRECTION FROM SITE	DISTANCES IN MILES 5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	3.637E-10	1.616E-10	9.788E-11	4.947E-11	2.994E-11	2.008E-11	1.439E-11	1.080E-11	8.399E-12	6.709E-12	5.476E-12
SSW	1.759E-10	7.814E-11	4.733E-11	2.392E-11	1.448E-11	9.709E-12	6.957E-12	5.224E-12	4.062E-12	3.244E-12	2.648E-12
SW	8.712E-11	3.870E-11	2.344E-11	1.185E-11	7.172E-12	4.809E-12	3.446E-12	2.587E-12	2.012E-12	1.607E-12	1.312E-12
WSW	8.464E-11	3.760E-11	2.278E-11	1.151E-11	6.968E-12	4.672E-12	3.348E-12	2.514E-12	1.954E-12	1.561E-12	1.274E-12
W	8.087E-11	3.592E-11	2.176E-11	1.100E-11	6.657E-12	4.463E-12	3.198E-12	2.402E-12	1.867E-12	1.492E-12	1.217E-12
WNW	9.847E-11	4.374E-11	2.650E-11	1.339E-11	8.106E-12	5.435E-12	3.895E-12	2.924E-12	2.274E-12	1.816E-12	1.483E-12
NW	2.450E-10	1.088E-10	6.593E-11	3.332E-11	2.017E-11	1.352E-11	9.690E-12	7.276E-12	5.657E-12	4.519E-12	3.689E-12
NNW	3.343E-10	1.485E-10	8.997E-11	4.547E-11	2.752E-11	1.845E-11	1.322E-11	9.929E-12	7.720E-12	6.167E-12	5.033E-12
N	4.546E-10	2.020E-10	1.223E-10	6.183E-11	3.742E-11	2.509E-11	1.798E-11	1.350E-11	1.050E-11	8.385E-12	6.844E-12
NNE	3.426E-10	1.522E-10	9.218E-11	4.659E-11	2.820E-11	1.891E-11	1.355E-11	1.017E-11	7.910E-12	6.319E-12	5.158E-12
NE	1.555E-10	6.906E-11	4.184E-11	2.115E-11	1.280E-11	8.581E-12	6.149E-12	4.617E-12	3.590E-12	2.868E-12	2.341E-12
ENE	1.355E-10	6.021E-11	3.647E-11	1.844E-11	1.116E-11	7.482E-12	5.361E-12	4.025E-12	3.130E-12	2.500E-12	2.041E-12
E	1.531E-10	6.800E-11	4.119E-11	2.082E-11	1.260E-11	8.449E-12	6.054E-12	4.546E-12	3.535E-12	2.823E-12	2.305E-12
ESE	3.057E-10	1.358E-10	8.227E-11	4.158E-11	2.517E-11	1.687E-11	1.209E-11	9.079E-12	7.059E-12	5.639E-12	4.603E-12
SE	5.365E-10	2.383E-10	1.444E-10	7.297E-11	4.416E-11	2.961E-11	2.122E-11	1.593E-11	1.239E-11	9.895E-12	8.077E-12
SSE	4.877E-10	2.166E-10	1.312E-10	6.633E-11	4.015E-11	2.692E-11	1.929E-11	1.448E-11	1.126E-11	8.996E-12	7.342E-12

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.411E-08	6.986E-09	1.824E-09	8.191E-10	4.634E-10	1.782E-10	5.155E-11	2.043E-11	1.091E-11	6.753E-12
SSW	1.649E-08	3.378E-09	8.819E-10	3.961E-10	2.241E-10	8.617E-11	2.493E-11	9.880E-12	5.276E-12	3.266E-12
SW	8.169E-09	1.673E-09	4.368E-10	1.962E-10	1.110E-10	4.268E-11	1.235E-11	4.894E-12	2.613E-12	1.618E-12
WSW	7.936E-09	1.626E-09	4.244E-10	1.906E-10	1.078E-10	4.146E-11	1.200E-11	4.754E-12	2.539E-12	1.571E-12
W	7.583E-09	1.553E-09	4.055E-10	1.821E-10	1.030E-10	3.962E-11	1.146E-11	4.542E-12	2.426E-12	1.501E-12
WNW	9.233E-09	1.891E-09	4.937E-10	2.217E-10	1.254E-10	4.824E-11	1.396E-11	5.531E-12	2.954E-12	1.828E-12
NW	2.297E-08	4.705E-09	1.228E-09	5.517E-10	3.121E-10	1.200E-10	3.472E-11	1.376E-11	7.349E-12	4.549E-12
NNW	3.135E-08	6.421E-09	1.676E-09	7.529E-10	4.259E-10	1.638E-10	4.738E-11	1.878E-11	1.003E-11	6.207E-12
N	4.263E-08	8.731E-09	2.279E-09	1.024E-09	5.791E-10	2.227E-10	6.443E-11	2.554E-11	1.364E-11	8.440E-12
NNE	3.212E-08	6.579E-09	1.718E-09	7.714E-10	4.364E-10	1.678E-10	4.855E-11	1.924E-11	1.028E-11	6.360E-12
NE	1.458E-08	2.986E-09	7.795E-10	3.501E-10	1.981E-10	7.616E-11	2.203E-11	8.733E-12	4.663E-12	2.886E-12
ENE	1.271E-08	2.603E-09	6.796E-10	3.052E-10	1.727E-10	6.640E-11	1.921E-11	7.614E-12	4.066E-12	2.517E-12
E	1.435E-08	2.940E-09	7.675E-10	3.447E-10	1.950E-10	7.499E-11	2.169E-11	8.598E-12	4.592E-12	2.842E-12
ESE	2.867E-08	5.872E-09	1.533E-09	6.885E-10	3.895E-10	1.498E-10	4.333E-11	1.717E-11	9.170E-12	5.676E-12
SE	5.030E-08	1.030E-08	2.690E-09	1.208E-09	6.834E-10	2.628E-10	7.603E-11	3.013E-11	1.609E-11	9.960E-12
SSE	4.573E-08	9.367E-09	2.445E-09	1.098E-09	6.213E-10	2.389E-10	6.912E-11	2.739E-11	1.463E-11	9.055E-12

VENTS GROUND LEVEL RELEASES - JAN-MAR 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER) NO DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 2.260 DAY DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 8.000 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	SITE BOUNDARY	S	0.80	1287.	7.237E-06	7.204E-06	6.417E-06	2.967E-08
A	SITE BOUNDARY	SSW	0.82	1327.	4.155E-06	4.131E-06	3.676E-06	1.324E-08
A	SITE BOUNDARY	SW	0.98	1569.	1.804E-06	1.792E-06	1.579E-06	4.240E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.266E-06	1.259E-06	1.112E-06	4.717E-09
A	SITE BOUNDARY	W	0.91	1468.	1.259E-06	1.252E-06	1.107E-06	4.676E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.425E-06	1.417E-06	1.251E-06	5.301E-09
A	SITE BOUNDARY	NW	0.81	1307.	5.910E-06	5.878E-06	5.234E-06	1.919E-08
A	SITE BOUNDARY	NNW	0.69	1106.	1.517E-05	1.509E-05	1.357E-05	3.714E-08
A	SITE BOUNDARY	N	0.67	1086.	1.578E-05	1.571E-05	1.413E-05	5.208E-08
A	SITE BOUNDARY	NNE	0.60	965.	1.164E-05	1.160E-05	1.049E-05	4.755E-08
A	SITE BOUNDARY	NE	0.62	1005.	4.837E-06	4.820E-06	4.349E-06	2.028E-08
A	SITE BOUNDARY	ENE	0.59	945.	3.616E-06	3.605E-06	3.266E-06	1.948E-08
A	SITE BOUNDARY	E	0.53	845.	4.425E-06	4.414E-06	4.026E-06	2.641E-08
A	SITE BOUNDARY	ESE	0.54	865.	6.630E-06	6.617E-06	6.074E-06	5.077E-08
A	SITE BOUNDARY	SE	0.65	1046.	7.710E-06	7.694E-06	6.920E-06	6.545E-08
A	SITE BOUNDARY	SSE	0.81	1307.	5.495E-06	5.478E-06	4.870E-06	3.821E-08
A	NEAR. RESIDENCE	SW	1.30	2092.	9.523E-07	9.432E-07	8.158E-07	2.038E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	5.828E-07	5.782E-07	4.995E-07	1.980E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.012E-06	1.006E-06	8.842E-07	3.688E-09
A	NEAR. RESIDENCE	WNW	1.60	2576.	4.405E-07	4.361E-07	3.710E-07	1.375E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	4.596E-06	4.568E-06	4.044E-06	1.468E-08
A	NEAR. RESIDENCE	NNW	1.90	3059.	1.729E-06	1.703E-06	1.432E-06	3.071E-09
A	NEAR. RESIDENCE	N	3.00	4829.	7.200E-07	7.049E-07	5.684E-07	1.423E-09
A	NEAR. RESIDENCE	NNE	2.40	3863.	6.483E-07	6.386E-07	5.251E-07	1.803E-09
A	NEAR. RESIDENCE	ENE	1.70	2737.	3.988E-07	3.952E-07	3.343E-07	1.631E-09
A	NEAR. RESIDENCE	E	1.80	2898.	3.596E-07	3.567E-07	3.000E-07	1.603E-09
A	NEAR. RESIDENCE	ESE	2.00	3220.	4.358E-07	4.324E-07	3.601E-07	2.482E-09
A	NEAR. RESIDENCE	SE	2.20	3542.	5.375E-07	5.335E-07	4.401E-07	3.468E-09
A	NEAREST COW	NNW	3.50	5634.	5.424E-07	5.275E-07	4.199E-07	7.364E-10
A	NEAREST GARDEN	SW	2.20	3541.	3.180E-07	3.127E-07	2.597E-07	5.636E-10
A	NEAREST GARDEN	WSW	1.30	2092.	5.828E-07	5.782E-07	4.995E-07	1.980E-09
A	NEAREST GARDEN	W	2.20	3541.	1.906E-07	1.878E-07	1.557E-07	5.231E-10
A	NEAREST GARDEN	WNW	1.60	2573.	4.405E-07	4.361E-07	3.710E-07	1.375E-09
A	NEAREST GARDEN	NW	2.80	4507.	4.264E-07	4.180E-07	3.394E-07	8.995E-10
A	NEAREST GARDEN	NNW	1.90	3059.	1.729E-06	1.703E-06	1.432E-06	3.071E-09
A	NEAREST GARDEN	NNE	2.70	4346.	5.150E-07	5.063E-07	4.118E-07	1.369E-09
A	NEAREST GARDEN	ENE	1.70	2737.	3.988E-07	3.952E-07	3.343E-07	1.631E-09
A	NEAREST GARDEN	E	2.00	3220.	2.890E-07	2.864E-07	2.387E-07	1.243E-09
A	NEAREST GARDEN	ESE	2.70	4346.	2.351E-07	2.326E-07	1.883E-07	1.221E-09
A	NEAREST GARDEN	SE	2.20	3541.	5.378E-07	5.338E-07	4.404E-07	3.470E-09

Atmospheric Diffusion Estimates
Ground Level Releases
April-June 1988

VENTS GROUND LEVEL RELEASES - APR-JUNE 1988
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	6.441E-05	2.017E-05	1.071E-05	5.40?E-06	2.235E-06	1.234E-06	7.938E-07	5.607E-07	4.217E-07	3.317E-07	2.698E-07
SSW	3.458E-05	1.115E-05	5.749E-06	2.844E-06	1.163E-06	6.383E-07	4.088E-07	2.878E-07	2.159E-07	1.695E-07	1.376E-07
SW	1.981E-05	6.495E-06	3.460E-06	1.736E-06	7.050E-07	3.847E-07	2.453E-07	1.721E-07	1.287E-07	1.007E-07	8.160E-08
WSW	1.661E-05	5.551E-06	2.940E-06	1.465E-06	5.886E-07	3.189E-07	2.022E-07	1.413E-07	1.053E-07	8.217E-08	6.638E-08
W	1.329E-05	4.643E-06	2.522E-06	1.265E-06	5.020E-07	2.696E-07	1.699E-07	1.180E-07	8.752E-08	6.803E-08	5.476E-08
WNW	2.084E-05	6.884E-06	3.605E-06	1.790E-06	7.224E-07	3.927E-07	2.498E-07	1.749E-07	1.306E-07	1.021E-07	8.262E-08
NW	3.247E-05	1.071E-05	5.678E-06	2.838E-06	1.150E-06	6.268E-07	3.994E-07	2.800E-07	2.094E-07	1.639E-07	1.327E-07
NNW	7.351E-05	2.311E-05	1.216E-05	6.109E-06	2.526E-06	1.395E-06	8.977E-07	6.344E-07	4.773E-07	3.756E-07	3.057E-07
N	8.719E-05	2.767E-05	1.469E-05	7.395E-06	3.038E-06	1.671E-06	1.072E-06	7.558E-07	5.676E-07	4.459E-07	3.623E-07
NNE	3.543E-05	1.087E-05	5.708E-06	2.875E-06	1.190E-06	6.583E-07	4.240E-07	2.999E-07	2.258E-07	1.778E-07	1.447E-07
NE	1.771E-05	5.688E-06	3.030E-06	1.526E-06	6.258E-07	3.436E-07	2.202E-07	1.550E-07	1.163E-07	9.127E-08	7.410E-08
ENE	6.455E-06	2.055E-06	1.080E-06	5.390E-07	2.170E-07	1.177E-07	7.479E-08	5.231E-08	3.904E-08	3.050E-08	2.467E-08
E	8.238E-06	2.738E-06	1.468E-06	7.376E-07	2.988E-07	1.628E-07	1.037E-07	7.269E-08	5.432E-08	4.250E-08	3.440E-08
ESE	9.500E-06	3.087E-06	1.638E-06	8.214E-07	3.341E-07	1.826E-07	1.165E-07	8.180E-08	6.122E-08	4.795E-08	3.886E-08
SE	2.543E-05	7.928E-06	4.065E-06	2.018E-06	8.359E-07	4.624E-07	2.979E-07	2.108E-07	1.587E-07	1.250E-07	1.018E-07
SSE	4.686E-05	1.443E-05	7.562E-06	3.805E-06	1.580E-06	8.752E-07	5.643E-07	3.994E-07	3.009E-07	2.370E-07	1.930E-07

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	2.253E-07	4.197E-07	7.939E-08	4.703E-08	3.256E-08	2.452E-08	1.948E-08	1.604E-08	1.357E-08	1.171E-08	1.027E-08
SSW	1.147E-07	6.062E-08	4.008E-08	2.367E-08	1.637E-08	1.232E-08	9.782E-09	8.057E-09	6.815E-09	5.882E-09	5.159E-09
SW	6.788E-08	3.556E-08	2.336E-08	1.366E-08	9.378E-09	7.018E-09	5.545E-09	4.548E-09	3.833E-09	3.297E-09	2.883E-09
WSW	5.510E-08	2.863E-08	1.871E-08	1.086E-08	7.422E-09	5.536E-09	4.363E-09	3.571E-09	3.004E-09	2.581E-09	2.254E-09
W	4.530E-08	2.322E-08	1.502E-08	8.598E-09	5.813E-09	4.299E-09	3.364E-09	2.737E-09	2.290E-09	1.958E-09	1.702E-09
WNW	6.838E-08	3.590E-08	2.356E-08	1.377E-08	9.452E-09	7.076E-09	5.594E-09	4.590E-09	3.870E-09	3.331E-09	2.914E-09
NW	1.104E-07	5.777E-08	3.795E-08	2.219E-08	1.523E-08	1.140E-08	9.010E-09	7.391E-09	6.230E-09	5.361E-09	4.688E-09
NNW	2.553E-07	1.358E-07	9.016E-08	5.348E-08	3.707E-08	2.795E-08	2.222E-08	1.831E-08	1.550E-08	1.338E-08	1.174E-08
N	3.022E-07	1.601E-07	1.060E-07	6.259E-08	4.326E-08	3.254E-08	2.582E-08	2.125E-08	1.796E-08	1.550E-08	1.358E-08
NNE	1.209E-07	6.447E-08	4.288E-08	2.550E-08	1.771E-08	1.337E-08	1.064E-08	8.778E-09	7.435E-09	6.425E-09	5.640E-09
NE	6.175E-08	3.257E-08	2.149E-08	1.265E-08	8.721E-09	6.548E-09	5.188E-09	4.265E-09	3.601E-09	3.103E-09	2.717E-09
ENE	2.051E-08	1.073E-08	7.044E-09	4.124E-09	2.839E-09	2.130E-09	1.687E-09	1.386E-09	1.170E-09	1.008E-09	8.826E-10
E	2.860E-08	1.496E-08	9.814E-09	5.726E-09	3.923E-09	2.932E-09	2.314E-09	1.896E-09	1.596E-09	1.372E-09	1.199E-09
ESE	3.234E-08	1.697E-08	1.117E-08	6.543E-09	4.497E-09	3.369E-09	2.665E-09	2.187E-09	1.844E-09	1.588E-09	1.389E-09
SE	8.511E-08	4.541E-08	3.022E-08	1.800E-08	1.253E-08	9.472E-09	7.548E-09	6.235E-09	5.287E-09	4.573E-09	4.018E-09
SSE	1.615E-07	8.605E-08	5.724E-08	3.405E-08	2.366E-08	1.787E-08	1.422E-08	1.174E-08	9.941E-09	8.592E-09	7.543E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	1.046E-05	2.496E-06	8.180E-07	4.271E-07	2.717E-07	1.253E-07	4.779E-08	2.465E-08	1.608E-08	1.173E-08
SSW	5.659E-06	1.304E-06	4.216E-07	2.188E-07	1.386E-07	6.352E-08	2.407E-08	1.238E-08	8.076E-09	5.890E-09
SW	3.368E-06	7.918E-07	2.532E-07	1.304E-07	8.219E-08	3.732E-08	1.391E-08	7.058E-09	4.560E-09	3.303E-09
WSW	2.865E-06	6.635E-07	2.089E-07	1.068E-07	6.688E-08	3.010E-08	1.108E-08	5.570E-09	3.582E-09	2.585E-09
W	2.435E-06	5.682E-07	1.757E-07	8.881E-08	5.519E-08	2.448E-08	8.788E-09	4.329E-09	2.746E-09	1.961E-09
WNW	3.527E-06	8.131E-07	2.579E-07	1.374E-07	8.323E-08	3.770E-08	1.403E-08	7.117E-09	4.402E-09	3.336E-09
NW	5.534E-06	1.293E-06	4.123E-07	2.122E-07	1.337E-07	6.065E-08	2.260E-08	1.147E-08	7.411E-09	5.369E-09
NNW	1.190E-05	2.819E-06	9.250E-07	4.835E-07	3.077E-07	1.421E-07	5.434E-08	2.809E-08	1.836E-08	1.340E-08
N	1.433E-05	3.398E-06	1.105E-06	5.750E-07	3.648E-07	1.676E-07	6.364E-08	3.271E-08	2.131E-08	1.552E-08
NNE	5.595E-06	1.328E-06	4.368E-07	2.286E-07	1.457E-07	6.742E-08	2.590E-08	1.343E-08	8.798E-09	6.434E-09
NE	2.952E-06	7.006E-07	2.270E-07	1.178E-07	7.461E-08	3.413E-08	1.287E-08	6.584E-09	4.276E-09	3.107E-09
ENE	1.056E-06	2.444E-07	7.726E-08	3.958E-08	2.486E-08	1.126E-08	4.202E-09	2.142E-09	1.390E-09	1.010E-09
E	1.426E-06	3.359E-07	1.071E-07	5.506E-08	3.465E-08	1.573E-08	5.833E-09	2.949E-09	1.901E-09	1.374E-09
ESE	1.597E-06	3.751E-07	1.202E-07	5.204E-08	3.914E-08	1.781E-08	6.662E-09	3.388E-09	2.193E-09	1.590E-09
SE	4.014E-06	9.326E-07	3.069E-07	1.608E-07	1.025E-07	4.748E-08	1.828E-08	9.517E-09	6.249E-09	4.579E-09
SSE	7.418E-06	1.761E-06	5.812E-07	3.047E-07	1.943E-07	8.998E-08	3.459E-08	1.795E-08	1.176E-08	8.603E-09

VENTS GROUND LEVEL RELEASES - APR-JUNE 1988
2.260 DAY 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	6.431E-05	2.011E-05	1.066E-05	5.376E-06	2.214E-06	1.218E-06	7.812E-07	5.499E-07	4.123E-07	3.232E-07	2.621E-07
SSW	3.453E-05	1.112E-05	5.726E-06	2.829E-06	1.154E-06	6.312E-07	4.030E-07	2.829E-07	2.116E-07	1.656E-07	1.341E-07
SW	1.978E-05	6.478E-06	3.446E-06	1.727E-06	6.992E-07	3.804E-07	2.419E-07	1.692E-07	1.261E-07	9.846E-08	7.952E-08
WSW	1.659E-05	5.539E-06	2.930E-06	1.459E-06	5.845E-07	3.159E-07	1.998E-07	1.392E-07	1.035E-07	8.059E-08	6.494E-08
W	1.328E-05	4.633E-06	2.514E-06	1.259E-06	4.986E-07	2.672E-07	1.579E-07	1.164E-07	8.612E-08	6.678E-08	5.363E-08
WNW	2.081E-05	6.867E-06	3.592E-06	1.781E-06	7.169E-07	3.887E-07	2.465E-07	1.721E-07	1.282E-07	9.996E-08	8.067E-08
NW	3.243E-05	1.069E-05	5.659E-06	2.826E-06	1.142E-06	6.211E-07	3.948E-07	2.762E-07	2.060E-07	1.608E-07	1.299E-07
NNW	7.341E-05	2.305E-05	1.211E-05	6.076E-06	2.504E-06	1.379E-06	8.851E-07	6.236E-07	4.679E-07	3.671E-07	2.978E-07
N	8.707E-05	2.760E-05	1.463E-05	7.355E-06	3.013E-06	1.653E-06	1.057E-06	7.433E-07	5.567E-07	4.361E-07	3.534E-07
NNE	3.538E-05	1.084E-05	5.685E-06	2.860E-06	1.181E-06	6.513E-07	4.183E-07	2.950E-07	2.215E-07	1.739E-07	1.412E-07
NE	1.769E-05	5.672E-06	3.018E-06	1.518E-06	6.206E-07	3.398E-07	2.171E-07	1.524E-07	1.140E-07	8.919E-08	7.220E-08
ENE	6.447E-06	2.050E-06	1.076E-06	5.363E-07	2.153E-07	1.165E-07	7.382E-08	5.149E-08	3.831E-08	2.985E-08	2.408E-08
E	8.232E-06	2.735E-06	1.465E-06	7.354E-07	2.975E-07	1.619E-07	1.030E-07	7.206E-08	5.378E-08	4.201E-08	3.397E-08
ESE	9.488E-06	3.079E-06	1.632E-06	8.174E-07	3.316E-07	1.807E-07	1.150E-07	8.052E-08	6.009E-08	4.694E-08	3.794E-08
SE	2.539E-05	7.965E-06	4.048E-06	2.007E-06	8.286E-07	4.569E-07	2.935E-07	2.070E-07	1.554E-07	1.220E-07	9.905E-08
SSE	4.678E-05	1.438E-05	7.527E-06	3.782E-06	1.565E-06	8.641E-07	5.553E-07	3.917E-07	2.941E-07	2.309E-07	1.875E-07

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	2.181E-07	1.140E-07	7.438E-08	4.267E-08	2.863E-08	2.091E-08	1.611E-08	1.288E-08	1.058E-08	8.877E-09	7.567E-09
SSW	1.114E-07	5.801E-08	3.778E-08	2.165E-08	1.454E-08	1.063E-08	8.203E-09	6.568E-09	5.403E-09	4.538E-09	3.873E-09
SW	6.595E-08	3.405E-08	2.204E-08	1.252E-08	8.352E-09	6.076E-09	4.669E-09	3.726E-09	3.057E-09	2.561E-09	2.182E-09
WSW	5.376E-08	2.758E-08	1.779E-08	1.007E-08	6.711E-09	4.883E-09	3.756E-09	3.001E-09	2.465E-09	2.068E-09	1.765E-09
W	4.426E-08	2.242E-08	1.434E-08	8.016E-09	5.297E-09	3.830E-09	2.932E-09	2.334E-09	1.912E-09	1.601E-09	1.363E-09
WNW	6.687E-08	3.448E-08	2.232E-08	1.269E-08	8.477E-09	6.179E-09	4.757E-09	3.803E-09	3.125E-09	2.623E-09	2.238E-09
NW	1.078E-07	5.574E-08	3.616E-08	2.063E-08	1.383E-08	1.011E-08	7.804E-09	6.256E-09	5.155E-09	4.338E-09	3.711E-09
NNW	2.480E-07	1.300E-07	8.507E-08	4.903E-08	3.304E-08	2.422E-08	1.874E-08	1.504E-08	1.239E-08	1.043E-08	8.917E-09
N	2.939E-07	1.535E-07	1.002E-07	5.757E-08	3.873E-08	2.837E-08	2.193E-08	1.760E-08	1.450E-08	1.221E-08	1.044E-08
NNE	1.177E-07	6.187E-08	4.059E-08	2.349E-08	1.589E-08	1.169E-08	9.070E-09	7.299E-09	6.033E-09	5.089E-09	4.363E-09
NE	5.999E-08	3.117E-08	2.027E-08	1.159E-08	7.765E-09	5.668E-09	4.368E-09	3.494E-09	2.872E-09	2.410E-09	2.056E-09
ENE	1.996E-08	1.029E-08	6.663E-09	3.793E-09	2.541E-09	1.856E-09	1.431E-09	1.146E-09	9.432E-10	7.926E-10	6.772E-10
E	2.820E-08	1.464E-08	9.543E-09	5.494E-09	3.715E-09	2.741E-09	2.135E-09	1.728E-09	1.437E-09	1.220E-09	1.053E-09
ESE	3.148E-08	1.630E-08	1.057E-08	6.027E-09	4.031E-09	2.940E-09	2.265E-09	1.812E-09	1.490E-09	1.251E-09	1.068E-09
SE	8.252E-08	4.334E-08	2.839E-08	1.639E-08	1.106E-08	8.114E-09	6.276E-09	5.034E-09	4.148E-09	3.487E-09	2.979E-09
SSE	1.562E-07	8.194E-08	5.363E-08	3.090E-08	2.080E-08	1.524E-08	1.177E-08	9.430E-09	7.760E-09	6.518E-09	5.565E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	1.041E-05	2.474E-06	8.053E-07	4.177E-07	2.639E-07	1.195E-07	4.348E-08	2.105E-08	1.293E-08	8.898E-09
SSW	5.638E-06	1.294E-06	4.158E-07	2.145E-07	1.350E-07	6.089E-08	2.207E-08	1.070E-08	6.591E-09	4.548E-09
SW	3.356E-06	7.859E-07	2.497E-07	1.279E-07	8.011E-08	3.580E-08	1.278E-08	6.120E-09	3.741E-09	2.567E-09
WSW	2.856E-06	6.594E-07	2.065E-07	1.050E-07	6.544E-08	2.905E-08	1.029E-08	4.920E-09	3.012E-09	2.074E-09
W	2.427E-06	5.648E-07	1.738E-07	8.740E-08	5.406E-08	2.368E-08	8.212E-09	3.862E-09	2.344E-09	1.605E-09
WNW	3.515E-06	8.075E-07	2.547E-07	1.300E-07	8.127E-08	3.627E-08	1.296E-08	6.223E-09	3.818E-09	2.629E-09
NW	5.517E-06	1.285E-06	4.077E-07	2.088E-07	1.309E-07	5.860E-08	2.106E-08	1.018E-08	6.279E-09	4.348E-09
NNW	1.186E-05	2.798E-06	9.123E-07	4.740E-07	2.999E-07	1.363E-07	4.993E-08	2.438E-08	1.509E-08	1.045E-08
N	1.428E-05	3.373E-06	1.091E-06	5.641E-07	3.559E-07	1.610E-07	5.866E-08	2.856E-08	1.766E-08	1.223E-08
NNE	5.575E-06	1.319E-06	4.311E-07	2.244E-07	1.422E-07	6.481E-08	2.391E-08	1.176E-08	7.323E-09	5.100E-09
NE	2.941E-06	6.953E-07	2.239E-07	1.155E-07	7.271E-08	3.273E-08	1.182E-08	5.707E-09	3.507E-09	2.416E-09
ENE	1.053E-06	2.428E-07	7.628E-08	3.885E-08	2.426E-08	1.083E-08	3.874E-09	1.869E-09	1.150E-09	7.945E-10
E	1.423E-06	3.346E-07	1.063E-07	5.452E-08	3.422E-08	1.539E-08	5.603E-09	2.758E-09	1.733E-09	1.223E-09
ESE	1.591E-06	3.725E-07	1.187E-07	6.092E-08	3.822E-08	1.713E-08	6.150E-09	2.961E-09	1.819E-09	1.254E-09
SE	3.998E-06	9.252E-07	3.025E-07	1.574E-07	9.973E-08	4.540E-08	1.669E-08	8.164E-09	5.051E-09	3.495E-09
SSE	7.386E-06	1.746E-06	5.722E-07	2.979E-07	1.887E-07	8.585E-08	3.146E-08	1.533E-08	9.462E-09	6.533E-09

VENTS GROUND LEVEL RELEASES - APR-JUNE 1988
8.000 DAY DECAY, DEPLETED
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	6.093E-05	1.841E-05	9.532E-06	4.727E-06	1.893E-06	1.018E-06	5.401E-07	4.429E-07	3.269E-07	2.528E-07	2.023E-07
SSW	3.271E-05	1.018E-05	5.118E-06	2.486E-06	9.857E-07	5.269E-07	3.298E-07	2.275E-07	1.675E-07	1.292E-07	1.033E-07
SW	1.874E-05	5.927E-06	3.079E-06	1.517E-06	5.974E-07	3.175E-07	1.979E-07	1.360E-07	9.984E-08	7.683E-08	6.124E-08
WSW	1.571E-05	5.066E-06	2.617E-06	1.281E-06	4.989E-07	2.633E-07	1.633E-07	1.117E-07	8.175E-08	6.273E-08	4.988E-08
W	1.258E-05	4.237E-06	2.245E-06	1.106E-06	4.255E-07	2.227E-07	1.371E-07	9.336E-08	6.798E-08	5.195E-08	4.116E-08
WNW	1.972E-05	6.282E-06	3.210E-06	1.565E-06	6.122E-07	3.242E-07	2.016E-07	1.383E-07	1.014E-07	7.791E-08	6.204E-08
NW	3.072E-05	9.774E-06	5.055E-06	2.481E-06	9.749E-07	5.177E-07	3.225E-07	2.216E-07	1.626E-07	1.251E-07	9.973E-08
NNW	6.954E-05	2.109E-05	1.082E-05	5.339E-06	2.140E-06	1.151E-06	7.243E-07	5.014E-07	3.704E-07	2.865E-07	2.294E-07
N	8.249E-05	2.525E-05	1.308E-05	6.463E-06	2.574E-06	1.379E-06	8.650E-07	5.975E-07	4.404E-07	3.402E-07	2.720E-07
NNE	3.352E-05	9.917E-06	5.081E-06	2.512E-06	1.009E-06	5.435E-07	3.422E-07	2.371E-07	1.752E-07	1.356E-07	1.086E-07
NE	1.676E-05	5.190E-06	2.697E-06	1.334E-06	5.302E-07	2.837E-07	1.776E-07	1.225E-07	9.022E-08	6.950E-08	5.561E-08
ENE	6.107E-06	1.876E-06	9.612E-07	4.711E-07	1.839E-07	9.721E-08	6.036E-08	4.137E-08	3.030E-08	2.327E-08	1.852E-08
E	7.795E-06	2.500E-06	1.307E-06	6.451E-07	2.535E-07	1.346E-07	8.384E-08	5.759E-08	4.226E-08	3.252E-08	2.592E-08
ESE	8.988E-06	2.817E-06	1.458E-06	7.180E-07	2.832E-07	1.507E-07	9.404E-08	6.469E-08	4.752E-08	3.659E-08	2.918E-08
SE	2.406E-05	7.234E-06	3.618E-06	1.764E-06	7.081E-07	3.816E-07	2.403E-07	1.666E-07	1.231E-07	9.531E-08	7.638E-08
SSE	4.433E-05	1.316E-05	6.730E-06	3.325E-06	1.338E-06	7.221E-07	4.550E-07	3.155E-07	2.333E-07	1.806E-07	1.447E-07

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	1.664E-07	8.321E-08	5.235E-08	2.843E-08	1.831E-08	1.295E-08	9.708E-09	7.584E-09	6.104E-09	5.027E-09	4.215E-09
SSW	8.481E-08	4.220E-08	2.648E-08	1.434E-08	9.232E-09	6.527E-09	4.896E-09	3.827E-09	3.082E-09	2.539E-09	2.130E-09
SW	5.018E-08	2.476E-08	1.544E-08	8.284E-09	5.294E-09	3.721E-09	2.779E-09	2.163E-09	1.736E-09	1.426E-09	1.193E-09
WSW	4.078E-08	1.997E-08	1.239E-08	6.607E-09	4.208E-09	2.952E-09	2.201E-09	1.711E-09	1.372E-09	1.127E-09	9.424E-10
W	3.354E-08	1.621E-08	9.958E-09	5.238E-09	3.303E-09	2.299E-09	1.703E-09	1.317E-09	1.051E-09	8.597E-10	7.165E-10
WNW	5.080E-08	2.502E-08	1.558E-08	8.360E-09	5.347E-09	3.762E-09	2.812E-09	2.191E-09	1.760E-09	1.447E-09	1.212E-09
NW	8.171E-08	4.031E-08	2.514E-08	1.351E-08	8.646E-09	6.088E-09	4.553E-09	3.550E-09	2.853E-09	2.347E-09	1.967E-09
NNW	1.887E-07	9.454E-08	5.957E-08	3.243E-08	2.093E-08	1.483E-08	1.114E-08	8.714E-09	7.024E-09	5.792E-09	4.863E-09
N	2.235E-07	1.115E-07	7.004E-08	3.799E-08	2.446E-08	1.729E-08	1.297E-08	1.014E-08	8.164E-09	6.727E-09	5.645E-09
NNE	8.943E-08	4.492E-08	2.835E-08	1.548E-08	1.002E-08	7.110E-09	5.351E-09	4.193E-09	3.385E-09	2.793E-09	2.350E-09
NE	4.565E-08	2.267E-08	1.420E-08	7.668E-09	4.922E-09	3.472E-09	2.600E-09	2.028E-09	1.631E-09	1.342E-09	1.124E-09
ENE	1.517E-08	7.473E-09	4.657E-09	2.503E-09	1.605E-09	1.131E-09	8.469E-10	6.607E-10	5.313E-10	4.372E-10	3.665E-10
E	2.124E-08	1.048E-08	6.540E-09	3.519E-09	2.255E-09	1.591E-09	1.192E-09	9.314E-10	7.504E-10	6.189E-10	5.199E-10
ESE	2.392E-08	1.183E-08	7.385E-09	3.972E-09	2.543E-09	1.791E-09	1.339E-09	1.043E-09	8.381E-10	6.892E-10	5.771E-10
SE	6.288E-08	3.159E-08	1.994E-08	1.089E-08	7.053E-09	5.007E-09	3.768E-09	2.953E-09	2.383E-09	1.967E-09	1.653E-09
SSE	1.191E-07	5.982E-08	3.774E-08	2.058E-08	1.330E-08	9.432E-09	7.089E-09	5.548E-09	4.473E-09	3.689E-09	3.097E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

	SEGMENT BOUNDARIES IN MILES									
DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.368E-06	2.134E-06	6.621E-07	3.318E-07	2.040E-07	8.798E-08	2.925E-08	1.308E-08	7.627E-09	5.045E-09
SSW	5.073E-06	1.115E-06	3.414E-07	1.701E-07	1.041E-07	4.468E-08	1.477E-08	6.596E-09	3.843E-09	2.548E-09
SW	3.018E-06	6.775E-07	2.051E-07	1.014E-07	6.176E-08	2.627E-08	8.544E-09	3.764E-09	2.176E-09	1.432E-09
WSW	2.568E-06	5.680E-07	1.693E-07	8.307E-08	5.032E-08	2.122E-08	6.826E-09	2.987E-09	1.722E-09	1.131E-09
W	2.181E-06	4.865E-07	1.424E-07	6.912E-08	4.154E-08	1.728E-08	5.427E-09	2.328E-09	1.326E-09	8.634E-10
WNW	3.161E-06	6.959E-07	2.090E-07	1.030E-07	6.258E-08	2.656E-08	8.626E-09	3.805E-09	2.204E-09	1.452E-09
NW	4.960E-06	1.106E-06	3.342E-07	1.652E-07	1.006E-07	4.277E-08	1.393E-08	6.156E-09	3.571E-09	2.356E-09
NNW	1.067E-05	2.412E-06	7.490E-07	3.759E-07	2.313E-07	9.993E-08	3.335E-08	1.498E-08	8.762E-09	5.813E-09
N	1.284E-05	2.907E-06	8.952E-07	4.471E-07	2.742E-07	1.180E-07	3.910E-08	1.747E-08	1.020E-08	6.752E-09
NNE	5.014E-06	1.136E-06	3.538E-07	1.778E-07	1.095E-07	4.745E-08	1.591E-08	7.182E-09	4.216E-09	2.805E-09
NE	2.645E-06	5.993E-07	1.839E-07	9.160E-08	5.607E-08	2.401E-08	7.899E-09	3.510E-09	2.040E-09	1.347E-09
ENE	9.466E-07	2.092E-07	6.259E-08	3.078E-08	1.869E-08	7.931E-09	2.582E-09	1.144E-09	6.646E-10	4.389E-10
E	1.278E-06	2.877E-07	8.688E-08	4.293E-08	2.614E-08	1.112E-08	3.629E-09	1.608E-09	9.369E-10	6.212E-10
ESE	1.431E-06	3.209E-07	9.741E-08	4.826E-08	2.943E-08	1.254E-08	4.096E-09	1.810E-09	1.050E-09	6.918E-10
SE	3.597E-06	7.976E-07	2.485E-07	1.249E-07	7.699E-08	3.537E-08	1.120E-08	5.057E-09	2.969E-09	1.974E-09
SSE	6.646E-06	1.506E-06	4.704E-07	2.367E-07	1.459E-07	6.319E-08	2.116E-08	9.527E-09	5.579E-09	3.702E-09

VENTS GROUND LEVEL RELEASES - AF2-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	DISTANCES IN MILES 0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	2.016E-07	6.817E-08	3.500E-08	1.664E-08	5.977E-09	2.964E-09	1.745E-09	1.143E-09	8.041E-10	5.959E-10	4.592E-10
SSW	1.392E-07	4.706E-08	2.416E-08	1.149E-08	4.126E-09	2.046E-09	1.205E-09	7.889E-10	5.551E-10	4.114E-10	3.170E-10
SW	7.749E-08	2.620E-08	1.345E-08	6.396E-09	2.297E-09	1.139E-09	6.709E-10	4.393E-10	3.091E-10	2.291E-10	1.765E-10
WSW	9.074E-08	3.068E-08	1.576E-08	7.490E-09	2.690E-09	1.334E-09	7.856E-10	5.144E-10	3.620E-10	2.683E-10	2.067E-10
W	7.511E-08	2.540E-08	1.304E-08	6.200E-09	2.227E-09	1.104E-09	6.503E-10	4.258E-10	2.996E-10	2.221E-10	1.711E-10
WNW	9.306E-08	3.147E-08	1.616E-08	7.682E-09	2.759E-09	1.368E-09	8.058E-10	5.276E-10	3.712E-10	2.751E-10	2.120E-10
NW	1.814E-07	6.136E-08	3.150E-08	1.498E-08	5.380E-09	2.668E-09	1.571E-09	1.029E-09	7.238E-10	5.364E-10	4.134E-10
NNW	3.098E-07	1.048E-07	5.378E-08	2.557E-08	9.185E-09	4.555E-09	2.682E-09	1.756E-09	1.236E-09	9.158E-10	7.057E-10
N	4.856E-07	1.642E-07	8.431E-08	4.008E-08	1.440E-08	7.140E-09	4.204E-09	2.753E-09	1.937E-09	1.436E-09	1.106E-09
NNE	1.727E-07	5.839E-08	2.998E-08	1.425E-08	5.119E-09	2.539E-09	1.495E-09	9.788E-10	6.888E-10	5.104E-10	3.933E-10
NE	6.628E-08	2.241E-08	1.151E-08	5.471E-09	1.965E-09	9.745E-10	5.738E-10	3.757E-10	2.644E-10	1.959E-10	1.510E-10
ENE	3.587E-08	1.213E-08	6.227E-09	2.961E-09	1.063E-09	5.274E-10	3.105E-10	2.033E-10	1.431E-10	1.060E-10	8.171E-11
E	5.705E-08	1.929E-08	9.906E-09	4.709E-09	1.692E-09	8.389E-10	4.940E-10	3.234E-10	2.276E-10	1.687E-10	1.300E-10
ESE	6.498E-08	2.197E-08	1.128E-08	5.364E-09	1.927E-09	9.555E-10	5.626E-10	3.684E-10	2.592E-10	1.921E-10	1.480E-10
SE	1.055E-07	3.567E-08	1.831E-08	8.707E-09	3.128E-09	1.551E-09	9.133E-10	5.980E-10	4.208E-10	3.118E-10	2.403E-10
SSE	1.598E-07	5.403E-08	2.774E-08	1.319E-08	4.738E-09	2.349E-09	1.383E-09	9.058E-10	6.374E-10	4.724E-10	3.640E-10

DIRECTION FROM SITE	DISTANCES IN MILES 5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	3.648E-10	1.621E-10	9.818E-11	4.962E-11	3.003E-11	2.014E-11	1.443E-11	1.084E-11	8.425E-12	6.790E-12	5.493E-12
SSW	2.519E-10	1.119E-10	6.778E-11	3.426E-11	2.073E-11	1.390E-11	9.961E-12	7.480E-12	5.816E-12	4.646E-12	3.792E-12
SW	1.402E-10	6.230E-11	3.774E-11	1.908E-11	1.155E-11	7.741E-12	5.547E-12	4.165E-12	3.238E-12	2.587E-12	2.111E-12
WSW	1.642E-10	7.296E-11	4.419E-11	2.234E-11	1.352E-11	9.065E-12	6.496E-12	4.877E-12	3.792E-12	3.029E-12	2.473E-12
W	1.359E-10	6.039E-11	3.658E-11	1.849E-11	1.119E-11	7.504E-12	5.377E-12	4.037E-12	3.139E-12	2.508E-12	2.047E-12
WNW	1.684E-10	7.483E-11	4.533E-11	2.291E-11	1.387E-11	9.297E-12	6.662E-12	5.002E-12	3.889E-12	3.107E-12	2.536E-12
NW	3.284E-10	1.459E-10	8.837E-11	4.467E-11	2.703E-11	1.813E-11	1.299E-11	9.753E-12	7.583E-12	6.057E-12	4.944E-12
NNW	5.607E-10	2.491E-10	1.509E-10	7.626E-11	4.615E-11	3.095E-11	2.217E-11	1.665E-11	1.295E-11	1.034E-11	8.441E-12
N	8.788E-10	3.904E-10	2.365E-10	1.195E-10	7.235E-11	4.851E-11	3.476E-11	2.610E-11	2.029E-11	1.621E-11	1.323E-11
NNE	3.125E-10	1.388E-10	8.409E-11	4.250E-11	2.573E-11	1.725E-11	1.236E-11	9.280E-12	7.216E-12	5.764E-12	4.705E-12
NE	1.200E-10	5.329E-11	3.228E-11	1.632E-11	9.875E-12	6.621E-12	4.744E-12	3.562E-12	2.770E-12	2.213E-12	1.806E-12
ENE	6.[illegible]E-11	2.884E-11	1.747E-11	8.829E-12	5.344E-12	3.583E-12	2.567E-12	1.928E-12	1.499E-12	1.197E-12	9.773E-13
E	1.[illegible]E-10	4.587E-11	2.779E-11	1.405E-11	8.501E-12	5.700E-12	4.084E-12	3.067E-12	2.384E-12	1.905E-12	1.555E-12
ESE	1.17[illegible]-10	5.225E-11	3.165E-11	1.600E-11	9.682E-12	6.491E-12	4.651E-12	3.493E-12	2.716E-12	2.169E-12	1.771E-12
SE	1.909E-10	8.481E-11	5.138E-11	2.597E-11	1.572E-11	1.054E-11	7.551E-12	5.670E-12	4.408E-12	3.522E-12	2.874E-12
SSE	2.892E-10	1.285E-10	7.782E-11	3.933E-11	2.381E-11	1.596E-11	1.144E-11	8.588E-12	6.678E-12	5.334E-12	4.354E-12

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.421E-08	7.007E-09	1.829E-09	8.216E-10	4.648E-10	1.787E-10	5.171E-11	2.049E-11	1.094E-11	6.774E-12
SSW	2.362E-08	4.837E-09	1.263E-09	5.672E-10	3.209E-10	1.234E-10	3.570E-11	1.415E-11	7.555E-12	4.676E-12
SW	1.315E-08	2.694E-09	7.032E-10	3.158E-10	1.787E-10	6.870E-11	1.988E-11	7.878E-12	4.207E-12	2.604E-12
WSW	1.540E-08	3.154E-09	8.235E-10	3.698E-10	2.092E-10	8.046E-11	2.328E-11	9.225E-12	4.926E-12	3.049E-12
W	1.275E-08	2.611E-09	6.816E-10	3.061E-10	1.732E-10	6.660E-11	1.927E-11	7.636E-12	4.078E-12	2.524E-12
WNW	1.579E-08	3.235E-09	8.445E-10	3.793E-10	2.146E-10	8.252E-11	2.387E-11	9.461E-12	5.052E-12	3.127E-12
NW	3.079E-08	6.307E-09	1.647E-09	7.395E-10	4.184E-10	1.609E-10	4.654E-11	1.845E-11	9.851E-12	6.097E-12
NNW	5.257E-08	1.077E-08	2.811E-09	1.263E-09	7.142E-10	2.747E-10	7.946E-11	3.149E-11	1.682E-11	1.041E-11
N	8.240E-08	1.688E-08	4.406E-09	1.979E-09	1.120E-09	4.305E-10	1.246E-10	4.937E-11	2.636E-11	1.632E-11
NNE	2.930E-08	6.002E-09	1.567E-09	7.037E-10	3.981E-10	1.531E-10	4.429E-11	1.755E-11	9.374E-12	5.802E-12
NE	1.125E-08	2.304E-09	6.015E-10	2.701E-10	1.528E-10	5.877E-11	1.700E-11	6.738E-12	3.598E-12	2.227E-12
ENE	6.087E-09	1.247E-09	3.255E-10	1.462E-10	8.270E-11	3.180E-11	9.200E-12	3.645E-12	1.947E-12	1.205E-12
E	9.682E-09	1.983E-09	5.178E-10	2.325E-10	1.315E-10	5.059E-11	1.463E-11	5.800E-12	3.097E-12	1.917E-12
ESE	1.103E-08	2.259E-09	5.897E-10	2.648E-10	1.498E-10	5.762E-11	1.667E-11	6.606E-12	3.528E-12	2.184E-12
SE	1.790E-08	3.667E-09	9.573E-10	4.299E-10	2.432E-10	9.353E-11	2.706E-11	1.072E-11	5.727E-12	3.545E-12
SSE	2.712E-08	5.554E-09	1.450E-09	6.512E-10	3.684E-10	1.417E-10	4.099E-11	1.624E-11	8.675E-12	5.369E-12

VENTS GROUND LEVEL RELEASES - APR-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER) NO DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 2.260 DAY DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 8.000 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	SITE BOUNDARY	S	0.80	1287.	9.214E-06	9.168E-06	8.169E-06	2.976E-08
A	SITE BOUNDARY	SSW	0.82	1327.	4.554E-06	4.534E-06	4.031E-06	1.896E-08
A	SITE BOUNDARY	SW	0.98	1569.	1.839E-06	1.830E-06	1.610E-06	6.825E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.762E-06	1.755E-06	1.548E-06	9.153E-09
A	SITE BOUNDARY	W	0.91	1468.	1.574E-06	1.567E-06	1.384E-06	7.861E-09
A	SITE BOUNDARY	WNW	0.94	1509.	2.084E-06	2.075E-06	1.830E-06	9.068E-09
A	SITE BOUNDARY	NW	0.81	1307.	4.691E-06	4.674E-06	4.156E-06	2.573E-08
A	SITE BOUNDARY	NNW	0.69	1106.	1.392E-05	1.386E-05	1.245E-05	6.229E-08
A	SITE BOUNDARY	N	0.67	1086.	1.727E-05	1.721E-05	1.546E-05	1.007E-07
A	SITE BOUNDARY	NNE	0.60	965.	8.107E-06	8.081E-06	7.311E-06	4.338E-08
A	SITE BOUNDARY	NE	0.62	1005.	4.009E-06	3.995E-06	3.605E-06	1.565E-08
A	SITE BOUNDARY	ENE	0.59	945.	1.585E-06	1.581E-06	1.432E-06	9.327E-09
A	SITE BOUNDARY	E	0.53	845.	2.535E-06	2.531E-06	2.307E-06	1.782E-08
A	SITE BOUNDARY	ESE	0.54	865.	2.745E-06	2.738E-06	2.494E-06	1.953E-08
A	SITE BOUNDARY	SE	0.65	1046.	5.115E-06	5.096E-06	4.589E-06	2.329E-08
A	SITE BOUNDARY	SSE	0.81	1307.	6.256E-06	6.224E-06	5.541E-06	2.265E-08
A	NEAR. RESIDENCE	SW	1.30	2092.	9.627E-07	9.559E-07	8.253E-07	3.231E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	8.068E-07	8.020E-07	6.918E-07	3.842E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.265E-06	1.259E-06	1.106E-06	6.200E-09
A	NEAR. RESIDENCE	WNW	1.60	2576.	6.282E-07	6.231E-07	5.294E-07	2.352E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	3.647E-06	3.633E-06	3.211E-06	1.968E-08
A	NEAR. RESIDENCE	NNW	1.90	3059.	1.547E-06	1.530E-06	1.283E-06	5.150E-09
A	NEAR. RESIDENCE	N	3.00	4829.	7.555E-07	7.431E-07	5.972E-07	2.751E-09
A	NEAR. RESIDENCE	NNE	2.40	3863.	4.589E-07	4.530E-07	3.719E-07	1.645E-09
A	NEAR. RESIDENCE	ENE	1.70	2737.	1.656E-07	1.642E-07	1.388E-07	7.813E-10
A	NEAR. RESIDENCE	E	1.80	2898.	2.026E-07	2.015E-07	1.691E-07	1.081E-09
A	NEAR. RESIDENCE	ESE	2.00	3220.	1.824E-07	1.806E-07	1.506E-07	9.548E-10
A	NEAR. RESIDENCE	SE	2.20	3542.	3.822E-07	3.777E-07	3.124E-07	1.234E-09
A	NEAREST COW	NNW	3.50	5634.	4.771E-07	4.676E-07	3.702E-07	1.235E-09
A	NEAREST GARDEN	SW	2.20	3541.	3.167E-07	3.128E-07	2.590E-07	9.072E-10
A	NEAREST GARDEN	WSW	1.30	2092.	8.068E-07	8.020E-07	6.918E-07	3.842E-09
A	NEAREST GARDEN	W	2.20	3541.	2.208E-07	2.186E-07	1.807E-07	8.794E-10
A	NEAREST GARDEN	WNW	1.60	2576.	6.282E-07	6.231E-07	5.294E-07	2.352E-09
A	NEAREST GARDEN	NW	2.80	4507.	3.198E-07	3.156E-07	2.550E-07	1.206E-09
A	NEAREST GARDEN	NNW	1.90	3059.	1.547E-06	1.530E-06	1.283E-06	5.150E-09
A	NEAREST GARDEN	NNE	2.70	4346.	3.657E-07	3.604E-07	2.926E-07	1.248E-09
A	NEAREST GARDEN	ENE	1.70	2737.	1.656E-07	1.642E-07	1.388E-07	7.813E-10
A	NEAREST GARDEN	E	2.00	3220.	1.627E-07	1.618E-07	1.345E-07	8.383E-10
A	NEAREST GARDEN	ESE	2.70	4346.	1.002E-07	9.898E-08	8.017E-08	4.699E-10
A	NEAREST GARDEN	SE	2.20	3541.	3.824E-07	3.774E-07	3.126E-07	1.235E-09

Atmospheric Diffusion Estimates
Ground Level Releases
January-June 1968

VENTS GROUND LEVEL RELEASES - JAN-JUNE 1988
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	5.505E-05	1.774E-05	9.980E-06	4.705E-06	1.923E-06	1.054E-06	6.742E-07	4.742E-07	3.554E-07	2.788E-07	2.262E-07
SSW	3.188E-05	1.026E-05	5.[illegible]E-06	2.633E-06	1.074E-06	5.903E-07	3.778E-07	2.659E-07	1.994E-07	1.565E-07	1.270E-07
SW	1.948E-05	6.357E-06	3.3[illegible]E-06	1.672E-06	6.806E-07	3.720E-07	2.375E-07	1.668E-07	1.249E-07	9.784E-08	7.932E-08
WSW	1.410E-05	4.714E-06	2.484E-06	1.235E-06	4.967E-07	2.692E-07	1.707E-07	1.193E-07	8.889E-08	6.938E-08	5.606E-08
W	1.232E-05	4.142E-06	2.199E-06	1.098E-06	4.421E-07	2.399E-07	1.523E-07	1.065E-07	7.941E-08	6.202E-08	5.013E-08
WNW	1.734E-05	5.656E-06	2.960E-06	1.472E-06	5.975E-07	3.260E-07	2.080E-07	1.459E-07	1.092E-07	8.549E-08	6.927E-08
NW	3.676E-05	1.179E-05	6.208E-06	3.107E-06	1.271E-06	6.974E-07	4.465E-07	3.143E-07	2.357E-07	1.850E-07	1.501E-07
NNW	7.490E-05	2.318E-05	1.217E-05	6.127E-06	2.546E-06	1.411E-06	9.098E-07	6.440E-07	4.852E-07	3.823E-07	3.114E-07
N	8.189E-05	2.568E-05	1.355E-05	6.823E-06	2.821E-06	1.559E-06	1.003E-06	7.087E-07	5.332E-07	4.196E-07	3.414E-07
NNE	4.086E-05	1.292E-05	6.873E-06	3.465E-06	1.421E-06	7.809E-07	5.006E-07	3.527E-07	2.647E-07	2.073E-07	1.683E-07
NE	1.879E-05	6.143E-06	3.319E-06	1.678E-06	6.821E-07	3.723E-07	2.374E-07	1.666E-07	1.246E-07	9.751E-08	7.898E-08
ENE	1.072E-05	3.317E-06	1.800E-06	9.107E-07	3.673E-07	1.994E-07	1.267E-07	8.859E-08	6.608E-08	5.162E-08	4.173E-08
E	1.132E-05	3.721E-06	2.007E-06	1.012E-06	4.099E-07	2.233E-07	1.422E-07	9.963E-08	7.444E-08	5.822E-08	4.713E-08
ESE	1.546E-05	5.269E-06	2.859E-06	1.439E-06	5.744E-07	3.097E-07	1.957E-07	1.362E-07	1.011E-07	7.881E-08	6.353E-08
SE	2.925E-05	9.761E-06	5.176E-06	2.583E-06	1.038E-06	5.627E-07	3.569E-07	2.493E-07	1.858E-07	1.451E-07	1.172E-07
SSE	4.116E-05	1.337E-05	7.083E-06	3.547E-06	1.435E-06	7.807E-07	4.968E-07	3.479E-07	2.599E-07	2.032E-07	1.645E-07

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	1.884E-07	9.927E-08	6.548E-08	3.851E-08	2.654E-08	1.992E-08	1.578E-08	1.297E-08	1.095E-08	9.436E-09	8.263E-09
SSW	1.058E-07	5.588E-08	3.692E-08	2.177E-08	1.504E-08	1.132E-08	8.980E-09	7.393E-09	6.250E-09	5.393E-09	4.728E-09
SW	6.602E-08	3.467E-08	2.282E-08	1.339E-08	9.211E-09	6.907E-09	5.467E-09	4.490E-09	3.789E-09	3.264E-09	2.857E-09
WSW	4.652E-08	2.417E-08	1.579E-08	9.163E-09	6.258E-09	4.666E-09	3.677E-09	3.009E-09	2.531E-09	2.174E-09	1.898E-09
W	4.162E-08	2.164E-08	1.415E-08	8.217E-09	5.613E-09	4.185E-09	3.298E-09	2.698E-09	2.269E-09	1.949E-09	1.702E-09
WNW	5.765E-08	3.029E-08	1.994E-08	1.170E-08	8.052E-09	6.039E-09	4.781E-09	3.928E-09	3.315E-09	2.856E-09	2.500E-09
NW	1.251E-07	6.601E-08	4.359E-08	2.568E-08	1.772E-08	1.332E-08	1.056E-08	8.693E-09	7.342E-09	6.331E-09	5.547E-09
NNW	2.603E-07	1.389E-07	9.239E-08	5.496E-08	3.817E-08	2.862E-08	2.293E-08	1.892E-08	1.602E-08	1.385E-08	1.216E-08
N	2.851E-07	1.516E-07	1.006E-07	5.967E-08	4.135E-08	3.117E-08	2.477E-08	2.041E-08	1.727E-08	1.491E-08	1.308E-08
NNE	1.408E-07	7.443E-08	4.922E-08	2.905E-08	2.008E-08	1.510E-08	1.198E-08	9.860E-09	8.334E-09	7.188E-09	6.299E-09
NE	6.568E-08	3.437E-08	2.256E-08	1.317E-08	9.031E-09	6.753E-09	5.332E-09	4.370E-09	3.680E-09	3.164E-09	2.765E-09
ENE	3.466E-08	1.805E-08	1.181E-08	6.868E-09	4.697E-09	3.505E-09	2.762E-09	2.261E-09	1.902E-09	1.633E-09	1.426E-09
E	3.918E-08	2.047E-08	1.343E-08	7.833E-09	5.369E-09	4.013E-09	3.168E-09	2.596E-09	2.186E-09	1.879E-09	1.642E-09
ESE	5.261E-08	2.710E-08	1.759E-08	1.011E-08	6.861E-09	5.088E-09	3.990E-09	3.252E-09	2.726E-09	2.334E-09	2.032E-09
SE	9.729E-08	5.056E-08	3.304E-08	1.919E-08	1.311E-08	9.781E-09	7.709E-09	6.309E-09	5.308E-09	4.560E-09	3.982E-09
SSE	1.367E-07	7.142E-08	4.684E-08	2.735E-08	1.877E-08	1.404E-08	1.110E-08	9.100E-09	7.669E-09	6.599E-09	5.770E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.159E-06	2.155E-06	6.954E-07	3.601E-07	2.278E-07	1.041E-07	3.918E-08	2.693E-08	1.300E-08	9.450E-09
SSW	5.220E-06	1.206E-06	3.897E-07	2.020E-07	1.279E-07	5.856E-08	2.215E-08	1.138E-08	7.411E-09	5.401E-09
SW	3.272E-06	7.638E-07	2.451E-07	1.266E-07	7.988E-08	3.637E-08	1.363E-08	6.946E-09	4.502E-09	3.269E-09
WSW	2.425E-06	5.597E-07	1.764E-07	9.014E-08	5.648E-08	2.541E-08	9.344E-09	4.695E-09	3.017E-09	2.178E-09
W	2.141E-06	4.980E-07	1.574E-07	8.052E-08	5.050E-08	2.275E-08	8.378E-09	4.211E-09	2.706E-09	1.952E-09
WNW	2.898E-06	6.713E-07	2.146E-07	1.106E-07	6.977E-08	3.177E-08	1.191E-08	6.073E-09	3.938E-09	2.860E-09
NW	6.071E-06	1.424E-06	4.605E-07	2.388E-07	1.512E-07	6.918E-08	2.612E-08	1.359E-08	8.712E-09	6.340E-09
NNW	1.193E-05	2.837E-06	9.370E-07	4.914E-07	3.135E-07	1.452E-07	5.581E-08	2.896E-08	1.896E-08	1.387E-08
N	1.326E-05	3.149E-06	1.033E-06	5.401E-07	3.437E-07	1.586E-07	6.063E-08	3.132E-08	2.046E-08	1.493E-08
NNE	6.702E-06	1.591E-06	5.162E-07	2.682E-07	1.700E-07	7.797E-08	2.954E-08	1.518E-08	9.885E-09	7.198E-09
NE	3.217E-06	7.658E-07	2.451E-07	1.263E-07	7.954E-08	3.608E-08	1.342E-08	6.792E-09	4.382E-09	3.169E-09
ENE	1.742E-06	4.134E-07	1.398E-07	6.700E-08	4.204E-08	1.897E-08	7.002E-09	3.526E-09	2.267E-09	1.636E-09
E	1.946E-06	4.608E-07	1.468E-07	7.546E-08	4.747E-08	2.150E-08	7.980E-09	4.036E-09	2.603E-09	1.882E-09
ESE	2.763E-06	6.489E-07	2.023E-07	1.027E-07	6.402E-08	2.854E-08	1.033E-08	5.122E-09	3.263E-09	2.338E-09
SE	5.042E-06	1.170E-06	3.688E-07	1.885E-07	1.151E-07	5.316E-08	1.956E-08	9.840E-09	6.328E-09	4.567E-09
SSE	6.909E-06	1.613E-06	5.130E-07	2.635E-07	1.657E-07	7.569E-08	2.787E-08	1.412E-08	9.125E-09	6.609E-09

VENTS GROUND LEVEL RELEASES - JAN-JUNE 1988
2.260 DAY 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	[illegible]	1.769E-05	9.344E-06	4.680E-06	1.907E-06	1.042E-06	6.651E-07	4.665E-07	3.486E-07	2.727E-07	2.206E-07
SSW	3.1w4E-05	1.023E-05	5.289E-06	2.620E-06	1.068E-06	5.840E-07	3.728E-07	2.616E-07	1.956E-07	1.530E-07	1.239E-07
SW	1.946E-05	6.340E-06	3.335E-06	1.663E-06	6.750E-07	3.679E-07	2.343E-07	1.640E-07	1.225E-07	9.567E-08	7.733E-08
WSW	1.409E-05	4.704E-06	2.476E-06	1.230E-06	4.934E-07	2.667E-07	1.688E-07	1.176E-07	8.745E-08	6.869E-08	5.488E-08
W	1.230E-05	4.133E-06	2.193E-06	1.093E-06	4.393E-07	2.378E-07	1.507E-07	1.051E-07	7.819E-08	6.092E-08	4.913E-08
WNW	1.732E-05	5.643E-06	2.950E-06	1.466E-06	5.934E-07	3.230E-07	2.055E-07	1.438E-07	1.073E-07	8.384E-08	6.777E-08
NW	3.671E-05	1.176E-05	6.186E-06	3.093E-06	1.262E-06	6.908E-07	4.412E-07	3.097E-07	2.317E-07	1.814E-07	1.469E-07
NNW	7.480E-05	2.311E-05	1.212E-05	6.094E-06	2.525E-06	1.395E-06	8.972E-07	6.333E-07	4.758E-07	3.738E-07	3.035E-07
N	8.178E-05	2.561E-05	1.350E-05	6.790E-06	2.800E-06	1.543E-06	9.903E-07	6.980E-07	5.238E-07	4.111E-07	3.336E-07
NNE	4.081E-05	1.289E-05	6.848E-06	3.448E-06	1.411E-06	7.731E-07	4.943E-07	3.473E-07	2.600E-07	2.036E-07	1.650E-07
NE	1.876E-05	6.128E-06	3.307E-06	1.670E-06	6.771E-07	3.686E-07	2.345E-07	1.640E-07	1.224E-07	9.553E-08	7.717E-08
ENE	1.011E-05	3.309E-06	1.794E-06	9.067E-07	3.648E-07	1.976E-07	1.252E-07	8.736E-08	6.501E-08	5.066E-08	4.086E-08
E	1.131E-05	3.715E-06	2.002E-06	1.009E-06	4.081E-07	2.219E-07	1.411E-07	9.868E-08	7.361E-08	5.749E-08	4.646E-08
ESE	1.545E-05	5.259E-06	2.851E-06	1.434E-06	5.713E-07	3.074E-07	1.938E-07	1.347E-07	9.988E-08	7.760E-08	6.243E-08
SE	2.922E-05	9.742E-06	5.161E-06	2.573E-06	1.032E-06	5.581E-07	3.533E-07	2.463E-07	1.831E-07	1.426E-07	1.153E-07
SSE	4.111E-05	1.334E-05	7.059E-06	3.530E-06	1.424E-06	7.732E-07	4.908E-07	3.429E-07	2.554E-07	1.992E-07	1.608E-07

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	1.833E-07	9.519E-08	6.191E-08	3.539E-08	2.372E-08	1.732E-08	1.335E-08	1.068E-08	8.784E-09	7.372E-09	6.290E-09
SSW	1.030E-07	5.358E-08	3.489E-08	2.000E-08	1.343E-08	9.825E-09	7.582E-09	6.072E-09	4.995E-09	4.195E-09	3.581E-09
SW	6.418E-08	3.322E-08	2.155E-08	1.228E-08	8.215E-09	5.990E-09	4.610E-09	3.684E-09	3.025E-09	2.536E-09	2.161E-09
WSW	4.543E-08	2.331E-08	1.504E-08	8.512E-09	5.671E-09	4.125E-09	3.172E-09	2.533E-09	2.080E-09	1.745E-09	1.488E-09
W	4.669E-08	2.091E-08	1.351E-08	7.662E-09	5.112E-09	3.723E-09	2.866E-09	2.292E-09	1.884E-09	1.582E-09	1.350E-09
WNW	5.626E-08	2.918E-08	1.897E-08	1.085E-08	7.282E-09	5.327E-09	4.113E-09	3.297E-09	2.716E-09	2.284E-09	1.952E-09
NW	1.221E-07	6.360E-08	4.117E-08	2.382E-08	1.604E-08	1.176E-08	9.098E-09	7.305E-09	6.026E-09	5.074E-09	4.343E-09
NNW	2.531E-07	1.331E-07	8.731E-08	5.050E-08	3.411E-08	2.506E-08	1.942E-08	1.560E-08	1.287E-08	1.084E-08	9.273E-09
N	2.779E-07	1.458E-07	9.554E-08	5.520E-08	3.728E-08	2.740E-08	2.124E-08	1.708E-08	1.411E-08	1.189E-08	1.019E-08
NNE	1.372E-07	7.162E-08	4.675E-08	2.690E-08	1.813E-08	1.330E-08	1.030E-08	8.275E-09	6.830E-09	5.754E-09	4.927E-09
NE	6.491E-08	3.305E-08	2.141E-08	1.218E-08	8.137E-09	5.931E-09	4.566E-09	3.650E-09	2.999E-09	2.517E-09	2.147E-09
ENE	3.385E-08	1.742E-08	1.126E-08	6.392E-09	4.269E-09	3.112E-09	2.397E-09	1.918E-09	1.578E-09	1.326E-09	1.133E-09
E	3.856E-08	1.998E-08	1.300E-08	7.459E-09	5.030E-09	3.700E-09	2.875E-09	2.319E-09	1.922E-09	1.627E-09	1.400E-09
ESE	5.160E-08	2.630E-08	1.690E-08	9.518E-09	6.325E-09	4.596E-09	3.533E-09	2.823E-09	2.320E-09	1.948E-09	1.663E-09
SE	9.524E-08	4.894E-08	3.162E-08	1.795E-08	1.200E-08	8.750E-09	6.745E-09	5.400E-09	4.445E-09	3.737E-09	3.195E-09
SSE	1.333E-07	6.876E-08	4.452E-08	2.533E-08	1.694E-08	1.236E-08	9.525E-09	7.622E-09	6.269E-09	5.265E-09	4.496E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.126E-06	2.139E-06	6.863E-07	3.534E-07	2.222E-07	9.997E-08	3.610E-08	1.744E-08	1.072E-08	7.390E-09
SSW	5.201E-06	1.198E-06	3.846E-07	1.982E-07	1.248E-07	5.625E-08	2.039E-08	9.888E-09	6.093E-09	4.205E-09
SW	3.260E-06	7.581E-07	2.418E-07	1.241E-07	7.789E-08	3.492E-08	1.254E-08	6.032E-09	3.698E-09	2.542E-09
WSW	2.417E-06	5.563E-07	1.744E-07	8.870E-08	5.530E-08	2.455E-08	8.700E-09	4.156E-09	2.543E-09	1.749E-09
W	2.135E-06	4.951E-07	1.557E-07	7.930E-08	4.950E-08	2.202E-08	7.828E-09	3.751E-09	2.301E-09	1.586E-09
WNW	2.889E-06	6.671E-07	2.122E-67	1.088E-07	6.827E-08	3.066E-08	1.107E-08	5.363E-09	3.309E-09	2.289E-09
NW	6.051E-06	1.415E-06	4.552E-07	2.348E-07	1.479E-07	6.676E-08	2.428E-08	1.183E-08	7.330E-09	5.085E-09
NNW	1.189E-05	2.816E-06	9.244E-07	4.820E-07	3.057E-07	1.394E-07	5.140E-08	2.522E-08	1.565E-08	1.086E-08
N	1.321E-05	3.128E-06	1.021E-06	5.306E-07	3.359E-07	1.528E-07	5.620E-08	2.757E-08	1.714E-08	1.192E-08
NNE	6.679E-06	1.580E-06	5.099E-07	2.635E-07	1.661E-07	7.514E-08	2.741E-08	1.339E-08	8.303E-09	5.767E-09
NE	3.206E-06	7.606E-07	2.421E-07	1.240E-07	7.773E-08	3.476E-08	1.243E-08	5.974E-09	3.664E-09	2.523E-09
ENE	1.736E-06	4.109E-07	1.294E-07	6.593E-08	4.117E-08	1.833E-08	6.531E-09	3.135E-09	1.925E-09	1.329E-09
E	1.941E-06	4.589E-07	1.457E-07	7.463E-08	4.680E-08	2.101E-08	7.610E-09	3.725E-09	2.326E-09	1.631E-09
ESE	2.756E-06	6.456E-07	2.005E-07	1.013E-07	6.291E-08	2.774E-08	9.739E-09	4.632E-09	2.834E-09	1.953E-09
SE	5.029E-06	1.164E-06	3.651E-07	1.858E-07	1.159E-07	5.153E-08	1.834E-08	8.813E-09	5.421E-09	3.746E-09
SSE	6.887E-06	1.603E-06	5.069E-07	2.590E-07	1.620E-07	7.233E-08	2.586E-08	1.245E-08	7.650E-09	5.277E-09

VENTS GROUND LEVEL RELEASES - JAN-JUNE 1988
8.000 DAY DECAY, DEPLETED
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	5.208E-05	1.619E-05	8.350E-06	4.112E-06	1.629E-06	8.699E-07	5.440E-07	3.749E-07	2.758E-07	2.126E-07	1.698E-07
SSW	3.016E-05	9.361E-06	4.726E-06	2.302E-06	9.122E-07	4.873E-07	3.049E-07	2.102E-07	1.547E-07	1.194E-07	9.535E-08
SW	1.843E-05	5.801E-06	2.980E-06	1.461E-06	5.767E-07	3.071E-07	1.917E-07	1.319E-07	9.690E-08	7.463E-08	5.954E-08
WSW	1.334E-05	4.302E-06	2.211E-06	1.080E-06	4.210E-07	2.223E-07	1.379E-07	9.437E-08	6.904E-08	5.298E-08	4.213E-08
W	1.165E-05	3.780E-06	1.958E-06	9.598E-07	3.748E-07	1.982E-07	1.230E-07	8.427E-08	6.169E-08	4.737E-08	3.768E-08
WNW	1.640E-05	5.162E-06	2.635E-06	1.287E-06	5.065E-07	2.693E-07	1.679E-07	1.154E-07	8.477E-08	6.526E-08	5.205E-08
NW	3.478E-05	1.076E-05	5.526E-06	2.716E-06	1.078E-06	5.759E-07	3.605E-07	2.486E-07	1.830E-07	1.412E-07	1.128E-07
NNW	7.086E-05	2.115E-05	1.083E-05	5.355E-06	2.157E-06	1.164E-06	7.340E-07	5.091E-07	3.765E-07	2.916E-07	2.338E-07
N	7.747E-05	2.343E-05	1.207E-05	5.965E-06	2.391E-06	1.287E-06	8.095E-07	5.605E-07	4.140E-07	3.202E-07	2.565E-07
NNE	3.866E-05	1.179E-05	6.118E-06	3.029E-06	1.204E-06	6.448E-07	4.041E-07	2.789E-07	2.055E-07	1.586E-07	1.268E-07
NE	1.777E-05	5.606E-06	2.955E-06	1.467E-06	5.781E-07	3.074E-07	1.916E-07	1.317E-07	9.670E-08	7.441E-08	5.932E-08
ENE	9.575E-06	3.027E-06	1.602E-06	7.962E-07	3.113E-07	1.647E-07	1.023E-07	7.009E-08	5.133E-08	3.941E-08	3.136E-08
E	1.071E-05	3.397E-06	1.787E-06	8.852E-07	3.437E-07	1.846E-07	1.149E-07	7.892E-08	5.790E-08	4.453E-08	3.549E-08
ESE	1.463E-05	4.809E-06	2.546E-06	1.258E-06	4.871E-07	2.559E-07	1.581E-07	1.079E-07	7.869E-08	6.023E-08	4.780E-08
SE	2.768E-05	8.908E-06	4.609E-06	2.258E-06	8.803E-07	4.648E-07	2.883E-07	1.974E-07	1.444E-07	1.108E-07	8.814E-08
SSE	3.894E-05	1.220E-05	6.306E-06	3.101E-06	1.216E-06	6.447E-07	4.010E-07	2.752E-07	2.018E-07	1.551E-07	1.236E-07

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	1.393E-07	6.915E-08	4.329E-08	2.337E-08	1.500E-08	1.058E-08	7.924E-09	6.184E-09	4.973E-09	4.093E-09	3.431E-09
SSW	7.828E-08	3.892E-08	2.441E-08	1.321E-08	8.501E-09	6.009E-09	4.507E-09	3.522E-09	2.836E-09	2.337E-09	1.961E-09
SW	4.882E-08	2.415E-08	1.508E-08	8.120E-09	5.204E-09	3.667E-09	2.743E-09	2.139E-09	1.719E-09	1.414E-09	1.184E-09
WSW	3.445E-08	1.686E-08	1.046E-08	5.578E-09	3.551E-09	2.491E-09	1.857E-09	1.444E-09	1.158E-09	9.506E-10	7.952E-10
W	3.082E-08	1.511E-08	9.380E-09	5.007E-09	3.190E-09	2.238E-09	1.669E-09	1.298E-09	1.041E-09	8.551E-10	7.154E-10
WNW	4.268E-08	2.112E-08	1.321E-08	7.119E-09	4.567E-09	3.222E-09	2.413E-09	1.883E-09	1.515E-09	1.248E-09	1.046E-09
NW	9.261E-08	4.604E-08	2.887E-08	1.563E-08	1.005E-08	7.107E-09	5.332E-09	4.168E-09	3.357E-09	2.767E-09	2.322E-09
NNW	1.925E-07	9.673E-08	6.107E-08	3.335E-08	2.157E-08	1.531E-08	1.152E-08	9.021E-09	7.280E-09	6.009E-09	5.049E-09
N	2.110E-07	1.057E-07	6.661E-08	3.628E-08	2.343E-08	1.661E-08	1.248E-08	9.775E-09	7.885E-09	6.507E-09	5.467E-09
NNE	1.042E-07	5.190E-08	3.258E-08	1.767E-08	1.138E-08	8.052E-09	6.044E-09	4.726E-09	3.808E-09	3.140E-09	2.636E-09
NE	4.860E-08	2.396E-08	1.493E-08	8.006E-09	5.117E-09	3.597E-09	2.686E-09	2.092E-09	1.679E-09	1.380E-09	1.155E-09
ENE	2.566E-08	1.260E-08	7.827E-09	4.183E-09	2.668E-09	1.873E-09	1.397E-09	1.087E-09	8.719E-10	7.161E-10	5.991E-10
E	2.907E-08	1.433E-08	8.937E-09	4.802E-09	3.077E-09	2.169E-09	1.624E-09	1.268E-09	1.020E-09	8.406E-10	7.054E-10
ESE	3.900E-08	1.894E-08	1.168E-08	6.180E-09	3.913E-09	2.733E-09	2.030E-09	1.574E-09	1.259E-09	1.032E-09	8.616E-10
SE	7.208E-08	3.531E-08	2.192E-08	1.170E-08	7.461E-09	5.238E-09	3.909E-09	3.042E-09	2.441E-09	2.006E-09	1.679E-09
SSE	1.012E-07	4.980E-08	3.101E-08	1.663E-08	1.064E-08	7.485E-09	5.594E-09	4.359E-09	3.502E-09	2.880E-09	2.412E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.208E-06	1.844E-06	5.633E-07	2.801E-07	1.712E-07	7.326E-08	2.408E-08	1.070E-08	6.220E-09	4.109E-09
SSW	4.678E-06	1.032E-06	3.157E-07	1.571E-07	9.614E-08	4.122E-08	1.361E-08	6.072E-09	3.542E-09	2.346E-09
SW	2.932E-06	6.535E-07	1.985E-07	9.841E-08	6.004E-08	2.560E-08	8.371E-09	3.707E-09	2.151E-09	1.419E-09
WSW	2.173E-06	4.792E-07	1.430E-07	7.016E-08	4.250E-08	1.792E-08	5.762E-09	2.520E-09	1.453E-09	9.544E-10
W	1.919E-06	4.263E-07	1.276E-07	6.269E-08	3.801E-08	1.606E-08	5.172E-09	2.264E-09	1.306E-09	8.585E-10
WNW	2.598E-06	5.745E-07	1.739E-07	8.610E-08	5.249E-08	2.239E-08	7.338E-09	3.257E-09	1.894E-09	1.252E-09
NW	5.441E-06	1.219E-06	3.752E-07	1.858E-07	1.137E-07	4.876E-08	1.609E-08	7.183E-09	4.192E-09	2.777E-09
NNW	1.069E-05	2.426E-06	7.588E-07	3.821E-07	2.356E-07	1.022E-07	3.428E-08	1.546E-08	9.071E-09	6.030E-09
N	1.188E-05	2.694E-06	8.372E-07	4.201E-07	2.585E-07	1.117E-07	3.731E-08	1.678E-08	9.829E-09	6.530E-09
NNE	6.006E-06	1.361E-06	4.182E-07	2.086E-07	1.278E-07	5.493E-08	1.819E-08	8.137E-09	4.753E-09	3.151E-09
NE	2.883E-06	6.503E-07	1.986E-07	9.822E-08	5.982E-08	2.542E-08	8.260E-09	3.638E-09	2.104E-09	1.385E-09
ENE	1.561E-06	3.539E-07	1.060E-07	5.215E-08	3.164E-08	1.338E-08	4.319E-09	1.894E-09	1.094E-09	7.189E-10
E	1.744E-06	3.946E-07	1.191E-07	5.881E-08	3.579E-08	1.521E-08	4.954E-09	2.193E-09	1.275E-09	8.437E-10
ESE	2.476E-06	5.557E-07	1.641E-07	7.999E-08	4.822E-08	2.017E-08	6.395E-09	2.766E-09	1.584E-09	1.036E-09
SE	4.520E-06	1.002E-06	2.990E-07	1.467E-07	8.891E-08	3.753E-08	1.209E-08	5.299E-09	3.061E-09	2.014E-09
SSE	6.192E-06	1.381E-06	4.157E-07	2.050E-07	1.246E-07	5.287E-08	1.716E-08	7.570E-09	4.386E-09	2.891E-09

VENTS GROUND LEVEL RELEASES - JAN-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	DISTANCES IN MILES 0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	2.050E-07	6.932E-08	3.559E-08	1.692E-08	6.078E-09	3.014E-09	1.775E-09	1.162E-09	8.177E-10	6.060E-10	4.670E-10
SSW	1.199E-07	3.854E-08	2.081E-08	9.896E-09	3.554E-09	1.763E-09	1.038E-09	6.796E-10	4.782E-10	3.544E-10	2.731E-10
SW	6.365E-08	2.152E-08	1.105E-08	5.254E-09	1.887E-09	9.359E-10	5.511E-10	3.606E-10	2.539E-10	1.882E-10	1.450E-10
WSW	6.970E-08	2.357E-08	1.210E-08	5.754E-09	2.067E-09	1.025E-09	6.035E-10	3.952E-10	2.781E-10	2.061E-10	1.588E-10
W	6.071E-08	2.053E-08	1.054E-08	5.011E-09	1.800E-09	8.927E-10	5.256E-10	3.442E-10	2.422E-10	1.795E-10	1.383E-10
WNW	7.478E-08	2.529E-08	1.298E-08	6.173E-09	2.217E-09	1.100E-09	6.475E-10	4.239E-10	2.983E-10	2.211E-10	1.704E-10
NW	1.608E-07	5.439E-08	2.793E-08	1.328E-08	4.769E-09	2.365E-09	1.393E-09	9.119E-10	6.416E-10	4.755E-10	3.664E-10
NNW	2.502E-07	8.467E-08	4.344E-08	2.065E-08	7.418E-09	3.679E-09	2.166E-09	1.418E-09	9.980E-10	7.396E-10	5.699E-10
N	3.730E-07	1.261E-07	6.477E-08	3.079E-08	1.106E-08	5.490E-09	3.230E-09	2.115E-09	1.488E-09	1.103E-09	8.498E-10
NNE	1.846E-07	6.241E-08	3.204E-08	1.523E-08	5.472E-09	2.714E-09	1.598E-09	1.046E-09	7.362E-10	5.456E-10	4.204E-10
NE	7.769E-08	2.627E-08	1.349E-08	6.413E-09	2.303E-09	1.142E-09	5.726E-10	4.484E-10	3.099E-10	2.297E-10	1.770E-10
ENE	5.680E-08	1.921E-08	9.862E-09	4.689E-09	1.684E-09	8.352E-10	4.918E-10	3.220E-10	2.266E-10	1.679E-10	1.294E-10
E	7.244E-08	2.450E-08	1.258E-08	5.979E-09	2.148E-09	1.065E-09	6.272E-10	4.107E-10	2.890E-10	2.142E-10	1.650E-10
ESE	1.202E-07	4.065E-08	2.087E-08	9.923E-09	3.564E-09	1.768E-09	1.041E-09	6.815E-10	4.795E-10	3.554E-10	2.739E-10
SE	2.067E-07	6.991E-08	3.589E-08	1.706E-08	6.129E-09	3.040E-09	1.790E-09	1.172E-09	8.247E-10	6.112E-10	4.710E-10
SSE	2.199E-07	7.435E-08	3.817E-08	1.815E-08	6.519E-09	3.233E-09	1.904E-09	1.246E-09	8.771E-10	6.500E-10	5.009E-10

DIRECTION FROM SITE	DISTANCES IN MILES 5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	3.710E-10	1.648E-10	9.984E-11	5.046E-11	3.054E-11	2.048E-11	1.467E-11	1.102E-11	8.567E-12	6.843E-12	5.586E-12
SSW	2.170E-10	9.639E-11	5.839E-11	2.951E-11	1.786E-11	1.198E-11	8.581E-12	6.444E-12	5.010E-12	4.002E-12	3.267E-12
SW	1.152E-10	5.118E-11	3.100E-11	1.567E-11	9.484E-12	6.359E-12	4.556E-12	3.421E-12	2.660E-12	2.125E-12	1.734E-12
WSW	1.262E-10	5.604E-11	3.395E-11	1.716E-11	1.039E-11	6.963E-12	4.989E-12	3.747E-12	2.913E-12	2.327E-12	1.899E-12
W	1.699E-10	4.881E-11	2.957E-11	1.494E-11	9.045E-12	6.065E-12	4.346E-12	3.263E-12	2.537E-12	2.027E-12	1.654E-12
WNW	1.353E-10	6.013E-11	3.642E-11	1.841E-11	1.114E-11	7.471E-12	5.353E-12	4.020E-12	3.125E-12	2.497E-12	2.038E-12
NW	2.911E-10	1.293E-10	7.834E-11	3.960E-11	2.397E-11	1.607E-11	1.151E-11	8.646E-12	6.722E-12	5.370E-12	4.383E-12
NNW	4.528E-10	2.011E-10	1.218E-10	6.159E-11	3.727E-11	2.499E-11	1.791E-11	1.345E-11	1.046E-11	8.352E-12	6.817E-12
N	6.751E-10	2.999E-10	1.817E-10	9.183E-11	5.558E-11	3.726E-11	2.670E-11	2.005E-11	1.559E-11	1.245E-11	1.016E-11
NNE	3.340E-10	1.484E-10	8.988E-11	4.543E-11	2.750E-11	1.844E-11	1.321E-11	9.920E-12	7.715E-12	6.161E-12	5.029E-12
NE	1.406E-10	6.246E-11	3.784E-11	1.912E-11	1.158E-11	7.761E-12	5.561E-12	4.176E-12	3.247E-12	2.594E-12	2.117E-12
ENE	1.028E-10	4.567E-11	2.766E-11	1.398E-11	8.463E-12	5.674E-12	4.066E-12	3.053E-12	2.374E-12	1.896E-12	1.548E-12
E	1.311E-10	5.824E-11	3.528E-11	1.783E-11	1.079E-11	7.237E-12	5.185E-12	3.894E-12	3.027E-12	2.418E-12	1.974E-12
ESE	2.176E-10	9.665E-11	5.855E-11	2.959E-11	1.791E-11	1.201E-11	8.605E-12	6.461E-12	5.024E-12	4.013E-12	3.276E-12
SE	3.742E-10	1.662E-10	1.007E-10	5.089E-11	3.080E-11	2.065E-11	1.480E-11	1.111E-11	8.640E-12	6.901E-12	5.633E-12
SSE	3.979E-10	1.768E-10	1.071E-10	5.413E-11	3.276E-11	2.196E-11	1.574E-11	1.182E-11	9.189E-12	7.340E-12	5.991E-12

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.479E-08	7.126E-09	1.860E-09	6.355E-10	4.726E-10	1.818E-10	5.258E-11	2.084E-11	1.113E-11	6.888E-12
SSW	2.034E-08	4.167E-09	1.008E-09	4.886E-10	2.764E-10	1.063E-10	3.075E-11	1.219E-11	6.508E-12	4.028E-12
SW	1.080E-08	2.213E-09	5.776E-10	2.594E-10	1.468E-10	5.644E-11	1.633E-11	6.471E-12	3.456E-12	2.139E-12
WSW	1.183E-08	2.423E-09	6.325E-10	2.841E-10	1.607E-10	6.180E-11	1.788E-11	7.086E-12	3.784E-12	2.342E-12
W	1.030E-08	2.110E-09	5.509E-10	2.474E-10	1.400E-10	5.383E-11	1.557E-11	6.172E-12	3.296E-12	2.040E-12
WNW	1.269E-08	2.600E-09	6.786E-10	3.048E-10	1.724E-10	6.631E-11	1.918E-11	7.603E-12	4.060E-12	2.513E-12
NW	2.730E-08	5.591E-09	1.460E-09	6.556E-10	3.709E-10	1.426E-10	4.126E-11	1.635E-11	8.732E-12	5.405E-12
NNW	4.246E-08	8.696E-09	2.270E-09	1.020E-09	5.768E-10	2.218E-10	6.417E-11	2.543E-11	1.358E-11	8.407E-12
N	6.330E-08	1.297E-08	3.385E-09	1.520E-09	8.601E-10	3.307E-10	9.568E-11	3.792E-11	2.025E-11	1.253E-11
NNE	3.132E-08	6.415E-09	1.675E-09	7.522E-10	4.255E-10	1.636E-10	4.734E-11	1.876E-11	1.002E-11	6.202E-12
NE	1.318E-08	2.701E-09	7.050E-10	3.166E-10	1.791E-10	6.888E-11	1.993E-11	7.898E-12	4.218E-12	2.611E-12
ENE	9.640E-09	1.975E-09	5.155E-10	2.315E-10	1.310E-10	5.036E-11	1.457E-11	5.775E-12	3.084E-12	1.909E-12
E	1.229E-08	2.518E-09	6.574E-10	2.952E-10	1.670E-10	6.423E-11	1.858E-11	7.365E-12	3.933E-12	2.434E-12
ESE	2.040E-08	4.179E-09	1.091E-09	4.899E-10	2.772E-10	1.066E-10	3.084E-11	1.222E-11	6.526E-12	4.039E-12
SE	3.508E-08	7.186E-09	1.876E-09	8.426E-10	4.766E-10	1.833E-10	5.303E-11	2.102E-11	1.122E-11	6.947E-12
SSE	3.731E-08	7.643E-09	1.995E-09	8.961E-10	5.069E-10	1.949E-10	5.640E-11	2.235E-11	1.194E-11	7.388E-12

VENTS GROUND LEVEL RELEASES - JAN-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER) NO DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 2.260 DAY DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 8.000 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	SITE BOUNDARY	S	0.80	1287.	8.058E-06	8.024E-06	7.145E-06	3.027E-08
A	SITE BOUNDARY	SSW	0.82	1327.	4.210E-06	4.192E-06	3.727E-06	1.633E-08
A	SITE BOUNDARY	SW	0.98	1569.	1.771E-06	1.762E-06	1.551E-06	5.606E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.486E-06	1.480E-06	1.306E-06	7.030E-09
A	SITE BOUNDARY	W	0.91	1468.	1.366E-06	1.361E-06	1.202E-06	6.353E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.712E-06	1.706E-06	1.504E-06	7.286E-09
A	SITE BOUNDARY	NW	0.81	1307.	5.129E-06	5.110E-06	4.544E-06	2.281E-08
A	SITE BOUNDARY	NNW	0.69	1106.	1.392E-05	1.387E-05	1.245E-05	5.030E-08
A	SITE BOUNDARY	N	0.67	1086.	1.594E-05	1.589E-05	1.427E-05	7.734E-08
A	SITE BOUNDARY	NNE	0.60	965.	9.705E-06	9.677E-06	8.753E-06	4.637E-08
A	SITE BOUNDARY	NE	0.62	1005.	4.369E-06	4.356E-06	3.929E-06	1.834E-08
A	SITE BOUNDARY	ENE	0.59	945.	2.591E-06	2.584E-06	2.340E-06	1.477E-08
A	SITE BOUNDARY	E	0.53	845.	3.441E-06	3.436E-06	3.152E-06	2.262E-08
A	SITE BOUNDARY	ESE	0.54	865.	4.707E-06	4.699E-06	4.277E-06	3.613E-08
A	SITE BOUNDARY	SE	0.65	1046.	6.463E-06	6.447E-06	5.801E-06	4.565E-08
A	SITE BOUNDARY	SSE	0.81	1307.	5.856E-06	5.834E-06	5.189E-06	3.117E-08
A	NEAR. RESIDENCE	SW	1.30	2092.	9.286E-07	9.220E-07	7.960E-07	2.695E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	6.806E-07	6.767E-07	5.837E-07	2.951E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.098E-06	1.093E-06	9.598E-07	5.011E-09
A	NEAR. RESIDENCE	WNW	1.60	2576.	5.200E-07	5.162E-07	4.383E-07	1.890E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	3.989E-06	3.973E-06	3.512E-06	1.745E-08
A	NEAR. RESIDENCE	NNW	1.90	3059.	1.563E-06	1.547E-06	1.296E-06	4.159E-09
A	NEAR. RESIDENCE	N	3.00	4829.	7.084E-07	6.977E-07	5.603E-07	2.114E-09
A	NEAR. RESIDENCE	NNE	2.40	3863.	5.422E-07	5.357E-07	4.395E-07	1.758E-09
A	NEAR. RESIDENCE	ENE	1.70	2737.	2.804E-07	2.783E-07	2.351E-07	1.257E-09
A	NEAR. RESIDENCE	E	1.80	2898.	2.778E-07	2.763E-07	2.319E-07	1.373E-09
A	NEAR. RESIDENCE	ESE	2.00	3220.	3.095E-07	3.072E-07	2.557E-07	1.766E-09
A	NEAR. RESIDENCE	SE	2.20	3542.	4.619E-07	4.578E-07	3.781E-07	2.419E-09
A	NEAREST COW	NNW	3.50	5634.	4.850E-07	4.756E-07	3.763E-07	9.974E-10
A	NEAREST GARDEN	SW	2.20	3541.	3.065E-07	3.027E-07	2.506E-07	7.452E-10
A	NEAREST GARDEN	WSW	1.30	2092.	6.806E-07	6.767E-07	5.837E-07	2.951E-09
A	NEAREST GARDEN	W	2.20	3541.	1.972E-07	1.953E-07	1.613E-07	7.107E-10
A	NEAREST GARDEN	WNW	1.60	2576.	5.200E-07	5.162E-07	4.383E-07	1.890E-09
A	NEAREST GARDEN	NW	2.80	4507.	3.583E-07	3.535E-07	2.857E-07	1.069E-09
A	NEAREST GARDEN	NNW	1.90	3059.	1.563E-06	1.547E-06	1.296E-06	4.159E-09
A	NEAREST GARDEN	NNE	2.70	4346.	4.310E-07	4.252E-07	3.450E-07	1.334E-09
A	NEAREST GARDEN	ENE	1.70	2737.	2.804E-07	2.783E-07	2.351E-07	1.257E-09
A	NEAREST GARDEN	E	2.00	3220.	2.231E-07	2.218E-07	1.844E-07	1.064E-09
A	NEAREST GARDEN	ESE	2.70	4346.	1.674E-07	1.659E-07	1.343E-07	8.692E-10
A	NEAREST GARDEN	SE	2.20	3541.	4.622E-07	4.581E-07	3.783E-07	2.420E-09

Atmospheric Diffusion Estimates
Elevated Releases
January-March 1988

ERF ELEVATED STACK RELEASE - JAN-MAR 1988
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	1.395E-09	3.597E-08	8.486E-08	1.035E-07	1.034E-07	8.675E-08	7.037E-08	5.736E-08	4.745E-08	5.090E-08	5.113E-08
SSW	2.986E-11	2.289E-09	1.314E-08	2.339E-08	2.936E-08	2.658E-08	2.249E-08	2.422E-08	2.457E-08	2.141E-08	1.891E-08
SW	2.643E-09	1.028E-08	1.687E-08	3.085E-08	5.149E-08	3.519E-08	2.545E-08	1.933E-08	1.527E-08	1.244E-08	1.038E-08
WSW	4.236E-09	1.368E-08	2.820E-08	5.785E-08	9.711E-08	6.169E-08	4.286E-08	3.178E-08	2.470E-08	1.989E-08	1.647E-08
W	6.818E-09	4.299E-08	1.330E-07	1.615E-07	1.383E-07	8.398E-08	5.645E-08	4.075E-08	3.098E-08	2.448E-08	1.994E-08
WNW	2.609E-08	4.237E-08	8.799E-08	1.337E-07	1.676E-07	1.024E-07	6.936E-08	5.261E-08	4.153E-08	3.280E-08	2.671E-08
NW	6.113E-09	1.911E-08	6.745E-08	1.341E-07	2.321E-07	1.390E-07	9.344E-08	6.951E-08	5.433E-08	4.310E-08	3.525E-08
NNW	1.930E-10	1.758E-08	5.418E-08	8.057E-08	1.010E-07	9.736E-08	9.641E-08	9.586E-08	9.612E-08	7.685E-08	6.330E-08
N	1.672E-08	2.802E-08	4.049E-08	4.618E-08	4.779E-08	4.312E-08	3.715E-08	3.125E-08	2.664E-08	2.303E-08	2.019E-08
NNE	1.337E-08	3.192E-08	5.072E-08	5.293E-08	5.128E-08	4.507E-08	3.857E-08	3.304E-08	2.857E-08	2.499E-08	2.212E-08
NE	3.794E-09	1.924E-08	2.506E-08	2.606E-08	2.675E-08	2.420E-08	2.098E-08	1.809E-08	1.571E-08	1.378E-08	1.223E-08
ENE	1.176E-09	1.021E-08	1.918E-08	2.190E-08	2.211E-08	1.931E-08	1.630E-08	1.376E-08	1.174E-08	1.014E-08	8.874E-09
E	1.767E-08	1.746E-08	1.879E-08	1.866E-08	1.907E-08	1.764E-08	1.564E-08	1.375E-08	1.211E-08	1.075E-08	9.627E-09
ESE	1.599E-09	1.755E-08	3.629E-08	4.357E-08	4.518E-08	3.971E-08	3.360E-08	2.840E-08	2.423E-08	2.093E-08	1.831E-08
SE	2.307E-08	4.644E-08	8.506E-08	1.035E-07	1.057E-07	8.994E-08	7.387E-08	6.085E-08	5.079E-08	4.302E-08	3.696E-08
SSE	1.423E-08	5.821E-08	9.501E-08	1.043E-07	1.006E-07	8.501E-08	7.012E-08	5.819E-08	4.900E-08	7.020E-08	9.262E-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	4.429E-08	2.631E-08	1.672E-08	9.305E-09	6.308E-09	4.660E-09	3.591E-09	2.884E-09	2.400E-09	2.039E-09	1.757E-09
SSW	1.737E-08	1.231E-08	7.910E-09	4.468E-09	3.074E-09	2.268E-09	1.755E-09	1.415E-09	1.175E-09	9.973E-10	8.617E-10
SW	9.469E-09	6.972E-09	4.574E-09	2.655E-09	1.887E-09	1.440E-09	1.154E-09	9.371E-10	7.850E-10	6.696E-10	5.808E-10
WSW	1.456E-08	9.620E-09	6.899E-09	4.289E-09	2.893E-09	2.136E-09	1.670E-09	1.358E-09	1.136E-09	9.706E-10	8.438E-10
W	1.662E-08	8.664E-09	5.777E-09	3.369E-09	2.278E-09	1.651E-09	1.269E-09	1.017E-09	8.398E-10	7.097E-10	6.107E-10
WNW	2.249E-08	1.215E-08	8.025E-09	4.671E-09	3.149E-09	2.321E-09	1.811E-09	1.466E-09	1.220E-09	1.037E-09	8.974E-10
NW	2.993E-08	1.678E-08	1.147E-08	6.981E-09	4.726E-09	3.500E-09	2.790E-09	2.277E-09	1.906E-09	1.630E-09	1.418E-09
NNW	5.514E-08	3.355E-08	2.215E-08	1.302E-08	8.971E-09	6.731E-09	5.390E-09	4.467E-09	3.851E-09	3.332E-09	2.912E-09
N	1.794E-08	1.161E-08	1.018E-08	9.045E-09	7.990E-09	6.695E-09	5.285E-09	4.314E-09	3.615E-09	3.095E-09	2.695E-09
NNE	2.541E-08	3.806E-08	2.469E-08	1.418E-08	9.618E-09	7.131E-09	5.592E-09	4.556E-09	3.818E-09	3.269E-09	2.846E-09
NE	1.416E-08	2.178E-08	1.414E-08	8.127E-09	5.509E-09	4.083E-09	3.229E-09	2.643E-09	2.219E-09	1.897E-09	1.650E-09
ENE	9.470E-09	1.162E-08	7.577E-09	4.372E-09	2.968E-09	2.201E-09	1.769E-09	1.462E-09	1.227E-09	1.043E-09	9.063E-10
E	1.102E-08	1.589E-08	1.044E-08	6.077E-09	4.149E-09	3.089E-09	2.429E-09	1.983E-09	1.693E-09	1.467E-09	1.277E-09
ESE	1.905E-08	2.136E-08	1.406E-08	8.199E-09	5.599E-09	4.161E-09	3.276E-09	2.674E-09	2.244E-09	1.922E-09	1.674E-09
SE	3.217E-08	1.906E-08	1.402E-08	9.255E-09	6.549E-09	5.036E-09	4.088E-09	3.441E-09	2.871E-09	2.448E-09	2.123E-09
SSE	8.014E-08	4.709E-08	3.041E-08	1.736E-08	1.173E-08	8.666E-09	6.779E-09	5.513E-09	4.612E-09	3.943E-09	3.428E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	8.218E-08	9.598E-08	6.953E-08	5.159E-08	4.853E-08	2.604E-08	9.620E-09	4.672E-09	2.902E-09	2.041E-09
SSW	1.528E-08	2.680E-08	2.427E-08	2.327E-08	1.908E-08	1.148E-08	4.613E-09	2.278E-09	1.421E-09	9.997E-10
SW	2.162E-08	3.966E-08	2.560E-08	1.535E-08	1.065E-08	6.461E-09	2.740E-09	1.445E-09	9.404E-10	6.700E-10
WSW	3.815E-08	7.264E-08	4.345E-08	2.489E-08	1.678E-08	9.509E-09	4.248E-09	2.151E-09	1.362E-09	9.725E-10
W	1.257E-07	1.193E-07	5.751E-08	3.130E-08	2.006E-08	9.150E-09	3.419E-09	1.665E-09	1.022E-09	7.116E-10
WNW	9.829E-08	1.311E-07	7.146E-08	4.137E-08	2.695E-08	1.262E-08	4.740E-09	2.338E-09	1.471E-09	1.040E-09
NW	8.635E-08	1.690E-07	9.603E-08	5.439E-08	3.561E-08	1.734E-08	6.976E-09	3.543E-09	2.282E-09	1.633E-09
NNW	5.777E-08	9.485E-08	9.645E-08	8.870E-08	6.429E-08	3.328E-08	1.325E-08	6.792E-09	4.496E-09	3.330E-09
N	4.025E-08	4.535E-08	3.638E-08	2.658E-08	2.020E-08	1.238E-08	8.829E-09	6.476E-09	4.325E-09	3.101E-09
NNE	4.753E-08	4.888E-08	3.809E-08	2.848E-08	2.419E-08	2.931E-08	1.449E-08	7.378E-09	4.571E-09	3.275E-09
NE	2.421E-08	2.546E-08	2.068E-08	1.566E-08	1.340E-08	1.669E-08	8.300E-09	4.122E-09	2.649E-09	1.901E-09
ENE	1.839E-08	2.082E-08	1.609E-08	1.171E-08	9.470E-09	9.344E-09	4.460E-09	2.233E-09	1.458E-09	1.045E-09
E	1.844E-08	1.834E-08	1.542E-08	1.206E-08	1.048E-08	1.239E-08	6.190E-09	3.107E-09	2.000E-09	1.464E-09
ESE	3.536E-08	4.239E-08	3.315E-08	2.416E-08	1.936E-08	1.761E-08	8.347E-09	4.193E-09	2.682E-09	1.926E-09
SE	8.467E-08	9.8[illegible]E-08	7.294E-08	5.070E-08	3.698E-08	1.973E-08	9.110E-09	5.060E-09	3.409E-09	2.453E-09
SSE	9.098E-08	9.[illegible]E-08	6.932E-08	5.970E-08	8.142E-08	4.702E-08	1.776E-08	6.727E-09	5.531E-09	3.950E-09

ERP ELEVATED STACK RELEASE - JAN-MAR 1988
2.260 DAY DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

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

SECTOR	0.250	0.569	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.395E-09	3.593E-08	8.474E-08	1.031E-07	1.031E-07	8.642E-08	7.004E-08	5.703E-08	4.713E-08	5.051E-08	5.069E-08
SSW	2.985E-11	2.288E-09	1.313E-08	2.335E-08	2.927E-08	2.647E-08	2.236E-08	2.405E-08	2.435E-08	2.115E-08	1.869E-08
SW	2.641E-09	1.026E-08	1.685E-08	3.079E-08	5.133E-08	3.505E-08	2.532E-08	1.921E-08	1.516E-08	1.234E-08	1.029E-08
WSW	4.235E-09	1.368E-08	2.817E-08	5.773E-08	9.679E-08	6.141E-08	4.262E-08	3.156E-08	2.450E-08	1.971E-08	1.630E-08
W	6.814E-09	4.295E-08	1.328E-07	1.611E-07	1.379E-07	8.359E-08	5.612E-08	4.047E-08	3.073E-08	2.426E-08	1.973E-08
WNW	2.599E-08	4.284E-08	8.787E-08	1.335E-07	1.670E-07	1.019E-07	6.897E-08	5.225E-08	4.119E-08	3.249E-08	2.643E-08
NW	6.112E-09	1.909E-08	6.736E-08	1.339E-07	2.314E-07	1.385E-07	9.303E-08	6.915E-08	5.400E-08	4.280E-08	3.498E-08
NNW	1.930E-10	1.756E-08	5.411E-08	8.043E-08	1.008E-07	9.702E-08	9.604E-08	9.543E-08	9.562E-08	7.640E-08	6.288E-08
N	1.672E-08	2.800E-08	4.045E-08	4.612E-08	4.769E-08	4.299E-08	3.701E-08	3.112E-08	2.650E-08	2.290E-08	2.005E-08
NNE	1.337E-08	3.191E-08	5.067E-08	5.286E-08	5.116E-08	4.492E-08	3.841E-08	3.287E-08	2.840E-08	2.482E-08	2.195E-08
NE	3.792E-09	1.922E-08	2.502E-08	2.601E-08	2.667E-08	2.409E-08	2.087E-08	1.797E-08	1.559E-08	1.366E-08	1.211E-08
ENE	1.176E-09	1.020E-08	1.916E-08	2.187E-08	2.206E-08	1.925E-08	1.624E-08	1.369E-08	1.167E-08	1.007E-08	8.810E-09
E	1.766E-08	1.745E-08	1.878E-08	1.864E-08	1.904E-08	1.759E-08	1.559E-08	1.369E-08	1.206E-08	1.070E-08	9.571E-09
ESE	1.599E-09	1.754E-08	3.626E-08	4.352E-08	4.510E-08	3.962E-08	3.350E-08	2.829E-08	2.413E-08	2.083E-08	1.820E-08
SE	2.306E-08	4.642E-08	8.500E-08	1.034E-07	1.055E-07	8.971E-08	7.363E-08	6.062E-08	5.056E-08	4.280E-08	3.675E-08
SSE	1.422E-08	5.819E-08	9.494E-08	1.042E-07	1.004E-07	8.479E-08	6.988E-08	5.794E-08	4.875E-08	6.977E-08	9.208E-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	4.387E-08	2.594E-08	1.640E-08	9.045E-09	6.075E-09	4.445E-09	3.394E-09	2.701E-09	2.227E-09	1.875E-09	1.601E-09
SSW	1.714E-08	1.205E-08	7.688E-09	4.279E-09	2.902E-09	2.110E-09	1.610E-09	1.279E-09	1.047E-09	8.760E-10	7.463E-10
SW	9.376E-09	6.872E-09	4.487E-09	2.581E-09	1.817E-09	1.375E-09	1.091E-09	8.780E-10	7.270E-10	6.152E-10	5.297E-10
WSW	1.440E-08	9.463E-09	6.751E-09	4.153E-09	2.771E-09	2.026E-09	1.567E-09	1.261E-09	1.044E-09	8.832E-10	7.601E-10
W	1.643E-08	8.516E-09	5.647E-09	3.258E-09	2.180E-09	1.563E-09	1.189E-09	9.432E-10	7.710E-10	6.450E-10	5.495E-10
WNW	2.223E-08	1.193E-08	7.831E-09	4.501E-09	2.997E-09	2.181E-09	1.681E-09	1.344E-09	1.105E-09	9.282E-10	7.935E-10
NW	2.968E-08	1.657E-08	1.128E-08	6.819E-09	4.582E-09	3.369E-09	2.666E-09	2.161E-09	1.796E-09	1.525E-09	1.318E-09
NNW	5.474E-08	3.319E-08	2.183E-08	1.274E-08	8.717E-09	6.495E-09	5.164E-09	4.250E-09	3.638E-09	3.126E-09	2.713E-09
N	1.780E-08	1.148E-08	1.003E-08	8.824E-09	7.729E-09	6.423E-09	5.030E-09	4.072E-09	3.385E-09	2.875E-09	2.484E-09
NNE	2.520E-08	3.763E-08	2.431E-08	1.386E-08	9.331E-09	6.867E-09	5.345E-09	4.324E-09	3.597E-09	3.057E-09	2.642E-09
NE	1.401E-08	2.144E-08	1.385E-08	7.876E-09	5.284E-09	3.876E-09	3.035E-09	2.459E-09	2.044E-09	1.730E-09	1.490E-09
ENE	9.393E-09	1.145E-08	7.431E-09	4.245E-09	2.854E-09	2.095E-09	1.667E-09	1.354E-09	1.129E-09	9.551E-10	8.218E-10
E	1.094E-08	1.572E-08	1.029E-08	5.946E-09	4.029E-09	2.978E-09	2.324E-09	1.884E-09	1.596E-09	1.373E-09	1.187E-09
ESE	1.893E-08	2.114E-08	1.386E-08	8.023E-09	5.439E-09	4.019E-09	3.136E-09	2.541E-09	2.117E-09	1.801E-09	1.557E-09
SE	3.196E-08	1.887E-08	1.383E-08	9.075E-09	6.379E-09	4.872E-09	3.927E-09	3.281E-09	2.719E-09	2.302E-09	1.983E-09
SSE	7.942E-08	4.639E-08	2.980E-08	1.683E-08	1.124E-08	8.221E-09	6.361E-09	5.117E-09	4.235E-09	3.581E-09	3.080E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.204E-08	9.569E-08	6.920E-08	5.125E-08	4.811E-08	2.568E-08	9.360E-09	4.459E-09	2.718E-09	1.878E-09
SSW	1.526E-08	2.671E-08	2.413E-08	2.206E-08	1.886E-08	1.124E-08	4.424E-09	2.121E-09	1.285E-09	8.786E-10
SW	2.158E-08	3.953E-08	2.547E-08	1.524E-08	1.056E-08	6.369E-09	2.665E-09	1.379E-09	8.814E-10	6.167E-10
WSW	3.809E-08	7.238E-08	4.321E-08	2.470E-08	1.661E-08	9.355E-09	4.116E-09	2.041E-09	1.266E-09	8.852E-10
W	1.254E-07	1.189E-07	5.718E-08	3.105E-08	1.985E-08	9.000E-09	3.310E-09	1.578E-09	9.479E-10	6.470E-10
WNW	9.813E-08	1.306E-07	7.107E-08	4.103E-08	2.667E-08	1.240E-08	4.573E-09	2.199E-09	1.349E-09	9.307E-10
NW	8.620E-08	1.685E-07	9.561E-08	5.406E-08	3.533E-08	1.713E-08	6.817E-09	3.411E-09	2.166E-09	1.529E-09
NNW	5.769E-08	9.459E-08	9.606E-08	8.824E-08	6.387E-08	3.293E-08	1.297E-08	6.555E-09	4.278E-09	3.124E-09
N	4.020E-08	4.525E-08	3.625E-08	2.645E-08	2.006E-08	1.224E-08	8.605E-09	6.214E-09	4.084E-09	2.881E-09
NNE	4.747E-08	4.876E-08	3.793E-08	2.831E-08	2.401E-08	2.895E-08	1.413E-08	6.915E-09	4.339E-09	3.063E-09
NE	2.417E-08	2.538E-08	2.057E-08	1.554E-08	1.327E-08	1.641E-08	8.050E-09	3.915E-09	2.465E-09	1.734E-09
ENE	1.857E-08	2.077E-08	1.602E-08	1.164E-08	9.401E-09	9.206E-09	4.335E-09	2.126E-09	1.361E-09	9.573E-10
E	1.842E-08	1.831E-08	1.537E-08	1.201E-08	1.041E-08	1.225E-08	6.059E-09	2.997E-09	1.900E-09	1.370E-09
ESE	3.533E-08	4.231E-08	3.305E-08	2.406E-08	1.925E-08	1.741E-08	8.173E-09	4.045E-09	2.550E-09	1.804E-09
SE	8.459E-08	9.801E-08	7.272E-08	5.047E-08	3.677E-08	1.954E-08	8.934E-09	4.896E-09	3.251E-09	2.308E-09
SSE	9.090E-08	9.430E-08	6.908E-08	5.939E-08	8.078E-08	4.635E-08	1.729E-08	8.283E-09	5.136E-09	3.587E-09

ERF ELEVATED STACK RELEASE - JAN-MAR 1988
8.000 DAY DECAY, DEPLETED
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	1.395E-09	3.565E-08	8.360E-08	1.019E-07	1.016E-07	8.[illegible]0E-08	6.808E-08	5.506E-08	4.521E-08	4.830E-08	4.835E-08
SSW	2.98[illegible]E-11	2.273E-09	1.308E-08	2.332E-08	2.904E-[illegible]	2.606E-08	2.186E-08	2.340E-08	2.364E-08	2.049E-08	1.803E-08
SW	2.642E-09	1.018E-08	1.669E-08	3.070E-08	5.092E-[illegible]	3.454E-08	2.483E-08	1.876E-08	1.475E-08	1.197E-08	9.960E-09
WSW	4.236E-09	1.356E-08	2.793E-08	5.754E-08	9.587E-08	6.039E-08	4.168E-08	3.073E-08	2.377E-08	1.907E-08	1.573E-08
W	6.817E-09	4.249E-08	1.318E-07	1.59[illegible]E-07	1.350E-07	8.113E-08	5.407E-08	3.874E-08	2.926E-08	2.298E-08	1.861E-08
WNW	2.600E-08	4.250E-08	8.712E-08	1.322E-07	1.649E-07	9.999E-08	6.735E-08	5.087E-08	4.001E-08	3.144E-08	2.547E-08
NW	6.113E-09	1.893E-08	6.660E-08	1.329E-07	2.290E-07	1.362E-07	9.097E-08	6.740E-08	5.250E-08	4.145E-08	3.373E-08
NNW	1.930E-10	1.742E-08	5.344E-08	7.975E-08	9.956E-08	9.536E-08	9.428E-08	9.381E-08	9.418E-08	7.500E-08	6.148E-08
N	1.672E-08	2.777E-08	3.988E-08	4.561E-08	4.706E-08	4.222E-08	3.617E-08	3.027E-08	2.568E-08	2.212E-08	1.932E-08
NNE	1.337E-08	3.164E-08	4.982E-08	5.203E-08	5.032E-08	4.405E-08	3.754E-08	3.203E-08	2.761E-08	2.407E-08	2.125E-08
NE	3.794E-09	1.906E-08	2.461E-08	2.565E-08	2.630E-08	2.368E-08	2.043E-08	1.754E-08	1.517E-08	1.325E-08	1.173E-08
ENE	1.176E-09	1.012E-08	1.887E-08	2.159E-08	2.174E-08	1.889E-08	1.585E-08	1.332E-08	1.131E-08	9.729E-09	8.483E-09
E	1.766E-08	1.730E-08	1.846E-08	1.837E-08	1.877E-08	1.731E-08	1.531E-08	1.342E-08	1.180E-08	1.045E-08	9.343E-09
ESE	1.599E-09	1.740E-08	3.578E-08	4.[illegible]35E-08	4.450E-08	3.890E-08	3.274E-08	2.753E-08	2.339E-08	2.013E-08	1.754E-08
SE	2.307E-08	4.604E-08	8.594E-08	1.024E-07	1.041E-07	8.798E-08	7.174E-08	5.870E-08	4.868E-08	4.100E-08	3.504E-08
SSE	1.423E-08	5.770E-08	9.351E-08	1.029E-07	9.884E-08	8.306E-08	6.808E-08	5.616E-08	4.704E-08	4.771E-08	9.000E-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	4.167E-08	2.412E-08	1.485E-08	7.797E-09	4.981E-09	3.497E-09	2.587E-09	2.002E-09	1.612E-09	1.330E-09	1.115E-09
SSW	1.652E-08	1.149E-08	7.143E-09	3.778E-09	2.425E-09	1.713E-09	1.277E-09	9.941E-10	7.994E-10	6.586E-10	5.532E-10
SW	9.070E-09	6.585E-09	4.177E-09	2.265E-09	1.490E-09	1.066E-09	8.220E-10	6.449E-10	5.220E-10	4.329E-10	3.657E-10
WSW	1.388E-08	8.980E-09	6.246E-09	3.674E-09	2.367E-09	1.681E-09	1.269E-09	9.994E-10	8.118E-10	6.752E-10	5.723E-10
W	1.544E-08	7.863E-09	5.125E-09	2.821E-09	1.807E-09	1.258E-09	9.324E-10	7.250E-10	5.794E-10	4.761E-10	3.991E-10
WNW	2.132E-08	1.115E-08	7.113E-09	3.860E-09	2.406E-09	1.674E-09	1.251E-09	9.770E-10	7.863E-10	6.480E-10	5.445E-10
NW	2.848E-08	1.549E-08	1.024E-08	5.863E-09	3.768E-09	2.670E-09	2.053E-09	1.623E-09	1.319E-09	1.097E-09	9.297E-10
NNW	5.330E-08	3.148E-08	2.086E-08	1.096E-08	6.933E-09	4.840E-09	3.645E-09	2.882E-09	2.400E-09	2.012E-09	1.708E-09
N	1.711E-08	1.[illegible]96E-08	9.614E-09	8.580E-09	7.419E-09	5.919E-09	4.531E-09	3.597E-09	2.939E-09	2.457E-09	2.093E-09
NNE	2.451E-08	3.675E-08	2.302E-08	1.247E-08	8.021E-09	5.688E-09	4.290E-09	3.376E-09	2.740E-09	2.278E-09	1.929E-09
NE	1.363E-08	2.099E-08	1.316E-08	7.104E-09	4.534E-09	3.193E-09	2.422E-09	1.918E-09	1.562E-09	1.299E-09	1.101E-09
ENE	9.063E-09	1.113E-08	7.022E-09	3.780E-09	2.372E-09	1.645E-09	1.246E-09	9.839E-10	7.937E-10	6.560E-10	5.525E-10
E	1.072E-08	1.[illegible]47E-08	9.813E-09	5.311E-09	3.331E-09	2.309E-09	1.707E-09	1.318E-09	1.069E-09	8.867E-10	7.453E-10
ESE	1.827E-08	2.052E-08	1.308E-08	7.123E-09	4.502E-09	3.138E-09	2.329E-09	1.805E-09	1.445E-09	1.185E-09	9.903E-10
SE	3.034E-08	1.762E-08	1.279E-08	8.313E-09	5.805E-09	4.424E-09	3.569E-09	2.979E-09	2.424E-09	2.021E-09	1.716E-09
SSE	7.730E-08	4.402E-08	2.742E-08	1.468E-08	9.316E-09	6.530E-09	4.875E-09	3.801E-09	3.059E-09	2.523E-09	2.120E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.108E-08	9.41[illegible]E-08	6.728E-08	4.920E-08	4.586E-08	2.390E-08	8.114E-09	3.529E-09	2.021E-09	1.334E-09
SSW	1.523E-08	2.644E-08	2.360E-08	2.237E-08	1.820E-08	1.068E-08	3.924E-09	1.728E-09	1.001E-09	6.613E-10
SW	2.147E-08	3.915E-08	2.499E-08	1.484E-08	1.023E-08	6.067E-09	2.346E-09	1.082E-09	6.487E-10	4.344E-10
WSW	3.790E-08	7.158E-08	4.229E-08	2.397E-08	1.604E-08	8.855E-09	3.665E-09	1.699E-09	1.005E-09	6.776E-10
W	1.242E-07	1.165E-07	5.515E-08	2.957E-08	1.873E-08	8.329E-09	2.982E-09	1.274E-09	7.281E-10	4.782E-10
WNW	9.726E-08	1.288E-07	6.946E-08	3.985E-08	2.570E-08	1.161E-08	3.937E-09	1.700E-09	9.826E-10	6.507E-10
NW	8.546E-08	1.664E-07	9.359E-08	5.255E-08	3.407E-08	1.604E-08	5.906E-09	2.716E-09	1.630E-09	1.101E-09
NNW	5.713E-08	9.329E-08	9.438E-08	8.677E-08	6.246E-08	3.125E-08	1.119E-08	4.920E-09	2.916E-09	2.014E-09
N	3.973E-08	4.458E-08	3.542E-08	2.564E-08	1.933E-08	1.173E-08	8.294E-09	5.764E-09	3.613E-09	2.465E-09
NNE	4.677E-08	4.791E-08	3.707E-08	2.753E-08	2.329E-08	2.793E-08	1.284E-08	5.751E-09	3.395E-09	2.286E-09
NE	2.384E-08	2.499E-08	2.014E-08	1.512E-08	1.289E-08	1.587E-08	7.307E-09	3.242E-09	1.927E-09	1.304E-09
ENE	1.814E-08	2.044E-08	1.565E-08	1.128E-08	9.067E-09	8.846E-09	3.875E-09	1.679E-09	9.864E-10	6.585E-10
E	1.816E-08	1.803E-08	1.508E-08	1.175E-08	1.018E-08	1.190E-08	5.431E-09	2.341E-09	1.334E-09	8.884E-10
ESE	3.493E-08	4.169E-08	3.230E-08	2.333E-08	1.858E-08	1.671E-08	7.280E-09	3.178E-09	1.818E-09	1.190E-09
SE	8.373E-08	9.656E-08	7.085E-08	4.862E-08	3.506E-08	1.830E-08	8.194E-09	4.450E-09	2.936E-09	2.027E-09
SSE	8.973E-08	9.273E-08	6.731E-08	5.752E-08	7.869E-08	4.404E-08	1.513E-08	6.611E-09	3.825E-09	2.533E-09

ERP ELEVATED STACK RELEASE - JAN-MAR 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
	DISTANCES IN MILES										
S	3.070E-09	3.170E-09	3.690E-09	3.120E-09	1.758E-09	1.140E-09	7.927E-10	5.777E-10	4.359E-10	3.582E-10	3.231E-10
SSW	3.293E-10	5.531E-10	8.994E-10	8.678E-10	5.247E-10	3.483E-10	2.449E-10	1.795E-10	1.698E-10	1.285E-10	1.005E-10
SW	2.840E-10	3.177E-10	3.983E-10	3.487E-10	3.678E-10	2.007E-10	1.246E-10	8.476E-11	6.132E-11	4.640E-11	3.633E-11
WSW	1.078E-09	9.218E-10	8.499E-10	1.038E-09	5.579E-10	3.004E-10	1.851E-10	1.253E-10	9.042E-11	6.833E-11	5.348E-11
W	5.667E-10	2.636E-09	2.338E-09	1.569E-09	7.689E-10	4.094E-10	2.506E-10	1.689E-10	1.217E-10	9.207E-11	7.239E-11
WNW	1.873E-09	1.534E-09	2.207E-09	1.677E-09	8.968E-10	4.603E-10	2.783E-10	1.884E-10	1.446E-10	1.127E-10	9.288E-11
NW	2.145E-09	1.779E-09	1.562E-09	2.016E-09	1.228E-09	6.175E-10	3.714E-10	2.533E-10	1.905E-10	1.544E-10	1.327E-10
NNW	1.643E-09	1.541E-09	1.612E-09	1.287E-09	1.266E-09	6.852E-10	4.258E-10	3.577E-10	2.669E-10	2.148E-10	1.833E-10
N	3.500E-09	2.977E-09	2.723E-09	1.991E-09	1.018E-09	6.371E-10	4.352E-10	3.143E-10	2.360E-10	1.825E-10	1.445E-10
NNE	4.011E-09	3.272E-09	2.794E-09	1.937E-09	9.495E-10	5.840E-10	3.954E-10	2.842E-10	2.129E-10	1.645E-10	1.303E-10
NE	1.087E-09	9.786E-10	9.709E-10	7.504E-10	3.993E-10	2.537E-10	1.746E-10	1.266E-10	9.528E-11	7.376E-11	5.840E-11
ENE	1.093E-09	1.011E-09	1.040E-09	8.220E-10	4.440E-10	2.837E-10	1.958E-10	1.422E-10	1.071E-10	8.291E-11	6.565E-11
E	1.86 E-09	1.501E-09	1.250E-09	8.478E-10	4.080E-10	2.491E-10	1.679E-10	1.205E-10	9.014E-11	6.962E-11	5.512E-11
ESE	2.201E-09	2.111E-09	2.270E-09	1.841E-09	1.011E-09	6.498E-10	4.499E-10	3.272E-10	2.465E-10	1.910E-10	1.512E-10
SE	7.084E-09	6.458E-09	6.518E-09	5.093E-09	2.729E-09	1.739E-09	1.199E-09	8.697E-10	6.547E-10	5.069E-10	4.014E-10
SSE	7.284E-09	6.273E-09	5.845E-09	4.331E-09	2.237E-09	1.405E-09	9.617E-10	6.952E-10	5.224E-10	4.876E-10	4.659E-10

DIRECTION FROM SITE	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
	DISTANCES IN MILES										
S	2.599E-10	1.482E-10	9.495E-11	5.191E-11	3.243E-11	2.532E-11	1.822E-11	1.374E-11	1.127E-11	9.006E-12	7.352E-12
SSW	8.148E-11	4.811E-11	3.114E-11	1.715E-11	1.201E-11	8.573E-12	6.145E-12	4.615E-12	3.639E-12	2.906E-12	2.372E-12
SW	2.953E-11	2.731E-11	1.977E-11	1.207E-11	7.675E-12	4.887E-12	3.477E-12	2.643E-12	2.055E-12	1.641E-12	1.340E-12
WSW	4.302E-11	3.496E-11	2.474E-11	1.525E-11	9.226E-12	6.187E-12	4.514E-12	3.390E-12	2.636E-12	2.105E-12	1.718E-12
W	5.874E-11	2.760E-11	2.768E-11	1.616E-11	1.068E-11	7.324E-12	5.248E-12	3.940E-12	3.064E-12	2.447E-12	1.998E-12
WNW	8.099E-11	4.922E-11	3.528E-11	2.135E-11	1.359E-11	8.458E-12	6.310E-12	4.739E-12	3.709E-12	2.963E-12	2.418E-12
NW	7.193E-10	8.107E-11	6.097E-11	3.564E-11	2.168E-11	1.454E-11	1.051E-11	7.895E-12	6.212E-12	4.962E-12	4.050E-12
NNW	1.641E-10	1.102E-10	8.251E-11	5.146E-11	3.307E-11	2.195E-11	1.463E-11	1.045E-11	8.177E-12	6.532E-12	5.332E-12
N	1.166E-10	5.553E-11	3.405E-11	1.816E-11	5.208E-11	3.029E-11	2.170E-11	1.630E-11	1.267E-11	1.012E-11	8.263E-12
NNE	1.052E-10	2.040E-10	1.262E-10	6.549E-11	3.997E-11	2.676E-11	1.913E-11	1.432E-11	1.111E-11	8.854E-12	7.215E-12
NE	4.711E-11	1.037E-10	6.454E-11	3.374E-11	2.066E-11	1.385E-11	9.879E-12	7.355E-12	5.770E-12	4.610E-12	3.762E-12
ENE	5.294E-11	5.861E-11	4.246E-11	2.584E-11	1.653E-11	1.101E-11	7.775E-12	5.599E-12	4.356E-12	3.483E-12	2.845E-12
E	4.452E-11	7.371E-11	5.688E-11	3.631E-11	2.350E-11	1.562E-11	1.099E-11	8.057E-12	6.135E-12	4.408E-12	3.585E-12
ESE	1.219E-10	1.388E-10	1.010E-10	6.163E-11	3.943E-11	2.623E-11	1.850E-11	1.362E-11	1.042E-11	8.220E-12	6.639E-12
SE	3.237E-10	1.539E-10	9.419E-11	5.006E-11	3.089E-11	2.141E-11	1.604E-11	2.461E-11	1.905E-11	1.521E-11	1.242E-11
SSE	3.932E-10	2.980E-10	1.837E-10	9.485E-11	5.780E-11	3.870E-11	2.767E-11	2.073E-11	1.608E-11	1.282E-11	1.045E-11

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	3.321E-09	1.786E-09	7.993E-10	4.468E-10	3.101E-10	1.493E-10	5.282E-11	2.438E-11	1.408E-11	9.065E-12
SSW	8.784E-10	5.226E-10	2.463E-10	1.568E-10	1.018E-10	4.798E-11	1.798E-11	8.518E-12	4.680E-12	2.926E-12
SW	3.583E-10	2.893E-10	1.290E-10	6.233E-11	3.679E-11	2.445E-11	1.181E-11	5.067E-12	2.657E-12	1.652E-12
WSW	9.494E-10	5.501E-10	1.920E-10	9.197E-11	5.401E-11	3.221E-11	1.468E-11	6.328E-12	3.424E-12	2.119E-12
W	2.062E-09	7.869E-10	2.603E-10	1.239E-10	7.316E-11	3.455E-11	1.628E-11	7.388E-12	3.986E-12	2.463E-12
WNW	1.822E-09	8.751E-10	2.909E-10	1.450E-10	9.436E-11	5.008E-11	2.100E-11	8.967E-12	4.796E-12	2.982E-12
NW	1.812E-09	1.132E-09	3.898E-10	1.947E-10	1.342E-10	8.064E-11	3.506E-11	1.483E-11	8.002E-12	4.995E-12
NNW	1.452E-09	1.012E-09	4.678E-10	2.730E-10	1.855E-10	1.099E-10	5.019E-11	2.199E-11	1.078E-11	6.575E-12
N	2.454E-09	1.065E-09	4.407E-10	2.380E-10	1.455E-10	5.956E-11	3.677E-11	3.267E-11	1.646E-11	1.019E-11
NNE	2.519E-09	1.006E-09	4.012E-10	2.149E-10	1.311E-10	1.475E-10	6.765E-11	2.723E-11	1.447E-11	8.914E-12
NE	8.746E-10	4.126E-10	1.765E-10	9.604E-11	5.877E-11	7.372E-11	3.477E-11	1.408E-11	7.473E-12	4.640E-12
ENE	9.367E-10	4.567E-10	1.978E-10	1.079E-10	6.606E-11	5.017E-11	2.540E-11	1.119E-11	5.747E-12	3.506E-12
E	1.127E-09	6.351E-10	1.706E-10	9.099E-11	5.549E-11	5.975E-11	3.519E-11	1.587E-11	8.162E-12	4.615E-12
ESE	2.044E-09	1.035E-09	4.541E-10	2.484E-10	1.521E-10	1.182E-10	6.051E-11	2.666E-11	1.380E-11	8.287E-12
SE	5.871E-09	2.814E-09	1.211E-09	6.598E-10	4.039E-10	1.651E-10	5.134E-11	2.179E-11	2.005E-11	1.531E-11
SSE	5.267E-09	2.333E-09	9.733E-10	5.585E-10	4.454E-10	2.684E-10	9.813E-11	3.938E-11	2.094E-11	1.291E-11

ERP ELEVATED STACK RELEASE - JAN-MAR 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER) NO DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 2.260 DAY DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 8.000 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	SITE BOUNDARY	S	0.80	1287.	9.017E-08	9.003E-08	8.883E-08	3.629E-09
A	SITE BOUNDARY	SSW	0.82	1327.	1.672E-08	1.670E-08	1.666E-08	9.277E-10
A	SITE BOUNDARY	SW	0.98	1569.	2.935E-08	2.930E-08	2.900E-08	3.601E-10
A	SITE BOUNDARY	WSW	0.93	1489.	4.851E-08	4.842E-08	4.824E-08	9.557E-10
A	SITE BOUNDARY	W	0.91	1468.	1.571E-07	1.567E-07	1.552E-07	1.731E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.235E-07	1.233E-07	1.222E-07	1.894E-09
A	SITE BOUNDARY	NW	0.81	1307.	8.267E-08	8.255E-08	8.175E-08	1.440E-09
A	SITE BOUNDARY	NNW	0.69	1106.	4.332E-08	4.327E-08	4.271E-08	1.577E-09
A	SITE BOUNDARY	N	0.67	1086.	3.561E-08	3.559E-08	3.508E-08	2.759E-09
A	SITE BOUNDARY	NNE	0.60	965.	3.982E-08	3.979E-08	3.925E-08	3.026E-09
A	SITE BOUNDARY	NE	0.62	1005.	2.191E-08	2.189E-08	2.158E-08	9.586E-10
A	SITE BOUNDARY	ENE	0.59	945.	1.327E-08	1.326E-08	1.310E-08	1.006E-09
A	SITE BOUNDARY	E	0.53	845.	1.735E-08	1.734E-08	1.716E-08	1.466E-09
A	SITE BOUNDARY	ESE	0.54	865.	2.012E-08	2.011E-08	1.991E-08	2.117E-09
A	SITE BOUNDARY	SE	0.65	1046.	6.692E-08	6.688E-08	6.608E-08	6.395E-09
A	SITE BOUNDARY	SSE	0.81	1307.	9.832E-08	9.824E-08	9.679E-08	5.467E-09
A	NEAR. RESIDENCE	SW	1.30	2092.	4.614E-08	4.602E-08	4.576E-08	4.888E-10
A	NEAR. RESIDENCE	WSW	1.30	2092.	8.766E-08	8.741E-08	8.680E-08	7.486E-10
A	NEAR. RESIDENCE	W	1.00	1609.	1.615E-07	1.611E-07	1.593E-07	1.569E-09
A	NEAR. RESIDENCE	WNW	1.60	2576.	1.502E-07	1.497E-07	1.476E-07	7.712E-10
A	NEAR. RESIDENCE	NW	0.90	1448.	1.060E-07	1.059E-07	1.050E-07	2.194E-09
A	NEAR. RESIDENCE	NNW	1.90	3059.	9.805E-08	9.774E-08	9.611E-08	7.657E-10
A	NEAR. RESIDENCE	N	3.00	4829.	3.125E-08	3.111E-08	3.027E-08	3.142E-10
A	NEAR. RESIDENCE	NNE	2.40	3863.	3.990E-08	3.965E-08	3.877E-08	4.250E-10
A	NEAR. RESIDENCE	ENE	1.70	2737.	[illegible]	2.107E-08	2.073E-08	3.631E-10
A	NEAR. RESIDENCE	E	1.80	2899.	1.834E-08	1.830E-08	1.802E-08	2.906E-10
A	NEAR. RESIDENCE	ESE	2.00	3220.	3.971E-08	3.961E-08	3.889E-08	6.495E-10
A	NEAR. RESIDENCE	SE	2.20	3542.	8.319E-08	8.296E-08	8.114E-08	1.486E-09
A	NEAREST COW	NNW	3.50	5634.	9.608E-08	9.558E-08	9.413E-08	2.668E-10
A	NEAREST GARDEN	SW	2.20	3541.	3.071E-08	3.057E-08	3.006E-08	1.636E-10
A	NEAREST GARDEN	WSW	1.30	2092.	8.766E-08	8.741E-08	8.680E-08	7.486E-10
A	NEAREST GARDEN	W	2.20	3541.	7.090E-08	7.054E-08	6.825E-08	3.316E-10
A	NEAREST GARDEN	WNW	1.60	2576.	1.502E-07	1.497E-07	1.476E-07	7.712E-10
A	NEAREST GARDEN	NW	2.80	4507.	7.769E-08	7.731E-08	7.544E-08	2.913E-10
A	NEAREST GARDEN	NNW	1.90	3059.	9.805E-08	9.774E-08	9.611E-08	7.657E-10
A	NEAREST GARDEN	NNE	2.70	4346.	3.622E-08	3.606E-08	3.520E-08	3.444E-10
A	NEAREST GARDEN	ENE	1.70	2737.	2.112E-08	2.107E-08	2.073E-08	3.631E-10
A	NEAREST GARDEN	E	2.00	3220.	1.763E-08	1.759E-08	1.731E-08	2.489E-10
A	NEAREST GARDEN	ESE	2.70	4346.	3.138E-08	3.128E-08	3.052E-08	3.940E-10
A	NEAREST GARDEN	SE	2.20	3541.	8.321E-08	8.298E-08	8.116E-08	1.487E-09

Atmospheric Diffusion Estimates
Elevated Releases
April-June 1988

ERP ELEVATED STACK RELEASE - APR-JUNE 1988
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	4.683E-08	9.040E-08	1.087E-07	8.892E-08	6.359E-08	4.772E-08	3.711E-08	2.977E-08	2.452E-08	2.781E-08	3.154E-08
SSW	3.044E-08	3.811E-08	4.979E-08	4.848E-08	4.185E-08	3.376E-08	2.719E-08	2.868E-08	2.983E-08	2.654E-08	2.406E-08
SW	3.229E-08	2.723E-08	4.305E-08	6.923E-08	9.113E-08	5.939E-08	4.180E-08	3.119E-08	2.432E-08	1.961E-08	1.624E-08
WSW	3.122E-08	5.048E-08	8.045E-08	1.099E-07	1.321E-07	7.908E-08	5.289E-08	3.814E-08	2.901E-08	2.295E-08	1.872E-08
W	3.569E-08	9.371E-08	1.512E-07	1.646E-07	1.471E-07	9.110E-08	6.247E-08	4.595E-08	3.555E-08	2.854E-08	2.358E-08
WNW	6.630E-08	6.415E-08	1.023E-07	1.485E-07	1.971E-07	1.213E-07	8.272E-08	6.344E-08	5.060E-08	4.014E-08	3.283E-08
NW	1.390E-07	1.336E-07	1.431E-07	1.875E-07	3.010E-07	1.797E-07	1.205E-07	8.941E-08	6.965E-08	5.519E-08	4.510E-08
NNW	1.942E-07	2.099E-07	1.900E-07	1.605E-07	1.627E-07	1.510E-07	1.369E-07	1.211E-07	1.080E-07	8.511E-08	6.924E-08
N	2.960E-07	3.385E-07	2.823E-07	1.955E-07	1.285E-07	9.874E-08	7.958E-08	6.478E-08	5.408E-08	4.607E-08	3.990E-08
NNE	6.284E-08	1.414E-07	1.359E-07	9.801E-08	6.440E-08	4.773E-08	3.729E-08	3.018E-08	2.510E-08	2.134E-08	1.847E-08
NE	4.222E-09	3.329E-08	4.781E-08	3.994E-08	2.845E-08	2.159E-08	1.709E-08	1.398E-08	1.173E-08	1.005E-08	8.759E-09
ENE	6.687E-11	4.524E-09	.185E-09	1.536E-08	1.662E-08	1.446E-08	1.207E-08	1.009E-08	8.532E-09	7.316E-09	6.362E-09
E	3.374E-09	2.810E-08	3.918E-08	3.312E-08	2.437E-08	1.859E-08	1.477E-08	1.199E-08	9.957E-09	8.432E-09	7.262E-09
ESE	5.922E-09	2.503E-08	2.884E-08	2.583E-08	2.172E-08	1.767E-08	1.436E-08	1.184E-08	9.855E-09	8.495E-09	7.372E-09
SE	1.612E-08	3.852E-08	4.966E-08	4.715E-08	4.099E-08	3.313E-08	2.657E-08	2.159E-08	1.787E-08	1.506E-08	1.289E-08
SSE	1.709E-08	6.268E-08	7.496E-08	6.153E-08	4.503E-08	3.442E-08	2.712E-08	2.195E-08	1.820E-08	2.511E-08	3.261E-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	2.895E-08	2.433E-08	1.628E-08	9.740E-09	7.304E-09	5.785E-09	4.577E-09	3.759E-09	3.224E-09	2.807E-09	2.455E-09
SSW	2.311E-08	2.201E-08	1.456E-08	8.570E-09	6.348E-09	4.855E-09	3.820E-09	3.122E-09	2.626E-09	2.254E-09	1.967E-09
SW	1.454E-08	9.607E-09	6.197E-09	3.517E-09	2.417E-09	1.800E-09	1.414E-09	1.141E-09	9.480E-10	8.036E-10	6.968E-10
WSW	1.609E-08	9.330E-09	6.241E-09	3.617E-09	2.409E-09	1.762E-09	1.366E-09	1.103E-09	9.175E-10	7.802E-10	6.752E-10
W	1.994E-08	1.100E-08	7.992E-09	5.370E-09	4.069E-09	3.039E-09	2.382E-09	1.941E-09	1.627E-09	1.393E-09	1.213E-09
WNW	2.779E-08	1.536E-08	1.030E-08	6.140E-09	4.193E-09	3.120E-09	2.455E-09	2.000E-09	1.671E-09	1.427E-09	1.239E-09
NW	3.822E-08	2.127E-08	1.443E-08	8.689E-09	5.888E-09	4.363E-09	3.465E-09	2.829E-09	2.368E-09	2.026E-09	1.763E-09
NNW	5.899E-08	3.339E-08	2.176E-08	1.259E-08	8.583E-09	6.390E-09	5.064E-09	4.162E-09	3.547E-09	3.056E-09	2.663E-09
N	3.516E-08	2.214E-08	1.843E-08	1.502E-08	1.285E-08	1.071E-08	8.464E-09	6.917E-09	5.804E-09	4.974E-09	4.335E-09
NNE	2.015E-08	3.011E-08	1.960E-08	1.133E-08	7.731E-09	5.761E-09	4.536E-09	3.710E-09	3.119E-09	2.678E-09	2.337E-09
NE	9.804E-09	1.695E-08	1.108E-08	6.441E-09	4.413E-09	3.297E-09	2.641E-09	2.182E-09	1.845E-09	1.584E-09	1.382E-09
ENE	6.673E-09	9.179E-09	6.057E-09	3.551E-09	2.438E-09	1.824E-09	1.504E-09	1.265E-09	1.062E-09	9.107E-10	7.941E-10
E	7.416E-09	7.419E-09	4.790E-09	2.733E-09	1.849E-09	1.368E-09	1.070E-09	8.706E-10	7.420E-10	6.429E-10	5.583E-10
ESE	7.601E-09	9.813E-09	6.551E-09	3.892E-09	2.693E-09	2.025E-09	1.605E-09	1.319E-09	1.113E-09	9.585E-10	8.387E-10
SE	1.119E-08	6.618E-09	4.923E-09	3.454E-09	2.579E-09	2.101E-09	1.806E-09	1.605E-09	1.358E-09	1.172E-09	1.028E-09
SSE	2.809E-08	1.635E-08	1.053E-08	6.007E-09	4.064E-09	3.009E-09	2.357E-09	1.919E-09	1.607E-09	1.375E-09	1.197E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.583E-08	6.217E-08	3.700E-08	2.727E-08	2.947E-08	2.178E-08	1.011E-08	5.707E-09	3.789E-09	2.800E-09
SSW	4.661E-08	3.973E-08	2.954E-08	2.825E-08	2.445E-08	1.894E-08	8.913E-09	4.839E-09	3.132E-09	2.258E-09
SW	5.117E-08	7.216E-08	4.224E-08	2.449E-08	1.661E-08	9.167E-09	3.624E-09	1.810E-09	1.145E-09	8.075E-10
WSW	8.689E-08	1.036E-07	5.397E-08	2.931E-08	1.900E-08	9.460E-09	3.663E-09	1.776E-09	1.108E-09	7.820E-10
W	1.444E-07	1.261E-07	6.350E-08	3.585E-08	2.370E-08	1.165E-08	5.374E-09	3.051E-09	1.948E-09	1.396E-09
WNW	1.144E-07	1.526E-07	8.590E-08	5.028E-08	3.313E-08	1.587E-08	6.200E-09	3.140E-09	2.005E-09	1.429E-09
NW	1.607E-07	2.219E-07	1.239E-07	6.979E-08	4.554E-08	2.199E-08	8.720E-09	4.510E-09	2.835E-09	2.030E-09
NNW	1.813E-07	1.570E-07	1.344E-07	1.030E-07	7.015E-08	3.391E-08	1.284E-08	6.444E-09	4.185E-09	3.058E-09
N	2.562E-07	1.302E-07	7.877E-08	5.408E-08	3.997E-08	2.338E-08	1.481E-08	1.038E-08	6.935E-09	4.983E-09
NNE	1.203E-07	6.446E-08	3.723E-08	2.512E-08	1.994E-08	2.322E-08	1.157E-08	5.796E-09	3.721E-09	2.682E-09
NE	4.106E-08	2.795E-08	1.705E-08	1.173E-08	9.527E-09	1.275E-08	6.571E-09	3.332E-09	2.185E-09	1.587E-09
ENE	1.187E-08	1.542E-08	1.191E-08	8.514E-09	6.760E-09	7.234E-09	3.613E-09	1.860E-09	1.256E-09	9.224E-10
E	3.402E-08	2.379E-08	1.470E-08	9.957E-09	7.666E-09	6.250E-09	2.797E-09	1.377E-09	8.787E-10	6.409E-10
ESE	2.665E-08	2.083E-08	1.424E-08	9.936E-09	7.790E-09	7.872E-09	3.950E-09	2.035E-09	1.322E-09	9.599E-10
SE	4.616E-08	3.891E-08	2.633E-08	1.786E-08	1.299E-08	6.881E-09	3.392E-09	2.111E-09	1.568E-09	1.174E-09
SSE	6.626E-08	4.398E-08	2.700E-08	2.190E-08	2.871E-08	1.637E-08	6.149E-09	3.079E-09	1.925E-09	1.378E-09

ERP ELEVATED STACK RELEASE - APR-JUNE 1988
2.260 DAY 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	4.682E-08	9.033E-08	1.085E-07	8.878E-08	6.346E-08	4.759E-08	3.699E-08	2.966E-08	2.441E-08	2.068E-08	3.136E-08
SSW	3.043E-08	3.807E-08	4.970E-08	4.838E-08	4.174E-08	3.364E-08	2.708E-08	2.854E-08	2.966E-08	2.636E-08	2.387E-08
SW	3.228E-08	2.721E-08	4.307E-08	6.914E-08	9.090E-08	5.917E-08	4.160E-08	3.101E-08	2.416E-08	1.946E-08	1.610E-08
WSW	3.171E-08	5.044E-08	8.037E-08	1.098E-07	1.319E-07	7.889E-08	5.273E-08	3.800E-08	2.888E-08	2.284E-08	1.862E-08
W	3.566E-08	9.364E-08	1.510E-07	1.643E-07	1.468E-07	9.084E-08	6.225E-08	4.576E-08	3.536E-08	2.837E-08	2.342E-08
WNW	4.628E-08	6.411E-08	1.022E-07	1.483E-07	1.967E-07	1.209E-07	8.241E-08	6.314E-08	5.032E-08	3.989E-08	3.259E-08
NW	1.[illegible]	[illegible]	1.935E-07	1.630E-07	1.872E-07	3.003E-07	1.792E-07	1.201E-07	8.899E-08	6.926E-08	5.484E-08	4.477E-08
NNW	1.942E-07	2.098E-07	[illegible]	[illegible]	1.603E-07	1.624E-07	1.507E-07	1.365E-07	1.206E-07	1.075E-07	8.465E-08	6.882E-08
N	2.959E-07	3.394E-07	2.821E-07	1.954E-07	1.287E-07	9.854E-08	7.938E-08	6.458E-08	5.389E-08	4.588E-08	3.972E-08
NNE	6.282E-08	1.414E-07	1.358E-07	9.790E-08	6.428E-08	4.761E-08	3.717E-08	3.006E-08	2.499E-08	2.123E-08	1.837E-08
NE	4.220E-09	3.325E-08	4.773E-08	3.985E-08	2.836E-08	2.151E-08	1.702E-08	1.391E-08	1.166E-08	9.982E-09	8.696E-09
ENE	6.685E-11	4.522E-09	1.184E-08	1.554E-08	1.659E-08	1.442E-08	1.203E-08	1.005E-08	8.495E-09	7.280E-09	6.327E-09
E	3.374E-09	2.808E-08	3.914E-08	3.307E-08	2.432E-08	1.863E-08	1.472E-08	1.193E-08	9.903E-09	8.378E-09	7.209E-09
ESE	5.929E-09	2.502E-08	2.882E-08	2.580E-08	2.166E-08	1.763E-08	1.432E-08	1.180E-08	9.900E-09	8.452E-09	7.329E-09
SE	1.612E-08	3.849E-08	4.961E-08	4.728E-08	4.090E-08	3.303E-08	2.647E-08	2.150E-08	1.777E-08	1.496E-08	1.280E-08
SSE	1.709E-08	6.265E-08	7.490E-08	6.146E-08	4.495E-08	3.434E-08	2.703E-08	2.186E-08	1.811E-08	2.496E-08	3.239E-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	2.875E-08	2.403E-08	1.601E-08	9.489E-09	7.042E-09	5.520E-09	4.325E-09	3.517E-09	2.986E-09	2.574E-09	2.229E-09
SSW	2.290E-08	2.165E-08	1.423E-08	8.282E-09	6.057E-09	4.575E-09	3.556E-09	2.872E-09	2.386E-09	2.024E-09	1.745E-09
SW	1.440E-08	9.465E-09	6.074E-09	3.414E-09	2.323E-09	1.713E-09	1.333E-09	1.065E-09	8.767E-10	7.380E-10	6.323E-10
WSW	1.599E-08	9.239E-09	6.159E-09	3.545E-09	2.345E-09	1.703E-09	1.312E-09	1.052E-09	8.688E-10	7.337E-10	6.306E-10
W	1.978E-08	1.086E-08	7.849E-09	5.205E-09	3.886E-09	2.866E-09	2.219E-09	1.787E-09	1.479E-09	1.251E-09	1.076E-09
WNW	2.757E-08	1.517E-08	1.014E-08	5.988E-09	4.055E-09	2.992E-09	2.334E-09	1.886E-09	1.562E-09	1.322E-09	1.139E-09
NW	3.791E-08	2.101E-08	1.419E-08	8.479E-09	5.699E-09	4.190E-09	3.301E-09	2.673E-09	2.221E-09	1.885E-09	1.628E-09
NNW	5.858E-08	3.302E-08	2.143E-08	1.230E-08	7.323E-09	6.149E-09	4.833E-09	3.940E-09	3.329E-09	2.844E-09	2.459E-09
N	3.498E-08	2.197E-08	1.824E-08	1.479E-08	1.257E-08	1.041E-08	8.181E-09	6.647E-09	5.545E-09	4.725E-09	4.095E-09
NNE	2.002E-08	2.977E-08	1.930E-08	1.107E-08	7.499E-09	5.545E-09	4.333E-09	3.517E-09	2.934E-09	2.500E-09	2.165E-09
NE	9.721E-09	1.667E-08	1.983E-08	6.222E-09	4.213E-09	3.112E-09	2.463E-09	2.012E-09	1.681E-09	1.427E-09	1.231E-09
ENE	6.632E-09	9.094E-09	5.982E-09	3.485E-09	2.378E-09	1.768E-09	1.448E-09	1.210E-09	1.009E-09	8.600E-10	7.451E-10
E	7.353E-09	7.314E-09	4.699E-09	2.656E-09	1.779E-09	1.304E-09	1.010E-09	8.139E-10	6.870E-10	5.894E-10	5.071E-10
ESE	7.552E-09	9.716E-09	6.465E-09	3.815E-09	2.623E-09	1.959E-09	1.542E-09	1.259E-09	1.056E-09	9.032E-10	7.853E-10
SE	1.111E-08	6.542E-09	4.848E-09	2.370E-09	2.488E-09	1.998E-09	1.690E-09	1.475E-09	1.232E-09	1.049E-09	9.075E-10
SSE	2.789E-08	1.616E-08	1.037E-08	5.873E-09	3.943E-09	2.897E-09	2.253E-09	1.821E-09	1.514E-09	1.286E-09	1.111E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	9.571E-08	6.203E-08	3.688E-08	2.715E-08	2.930E-08	2.152E-08	9.951E-09	5.448E-09	3.546E-09	2.568E-09
SSW	4.653E-08	3.962E-08	2.941E-08	2.808E-08	2.425E-08	1.863E-08	8.616E-09	4.562E-09	2.882E-09	2.028E-09
SW	5.111E-08	7.196E-08	4.205E-08	2.433E-08	1.646E-08	9.054E-09	3.520E-09	1.724E-09	1.070E-09	7.400E-10
WSW	8.690E-08	1.034E-07	5.381E-08	2.918E-08	1.890E-08	9.371E-09	3.592E-09	1.718E-09	1.056E-09	7.355E-10
W	1.442E-07	1.258E-07	6.328E-08	3.567E-08	2.354E-08	1.150E-08	4.206E-09	2.879E-09	1.793E-09	1.254E-09
WNW	1.142E-07	1.523E-07	8.498E-08	5.001E-08	3.289E-08	1.569E-08	6.051E-09	3.012E-09	1.891E-09	1.325E-09
NW	1.605E-07	2.213E-07	1.234E-07	6.940E-08	4.521E-08	2.174E-08	8.513E-09	4.237E-09	2.680E-09	1.889E-09
NNW	1.912E-07	1.567E-07	1.339E-07	1.026E-07	6.972E-08	3.355E-08	1.256E-08	6.202E-09	3.962E-09	2.845E-09
N	7.561E-07	1.300E-07	7.857E-08	5.389E-08	3.979E-08	2.321E-08	1.457E-08	1.009E-08	6.665E-09	4.735E-09
NNE	1.202E-07	6.435E-08	3.711E-08	2.500E-08	1.983E-08	2.295E-08	1.131E-08	5.582E-09	3.528E-09	2.504E-09
NE	4.101E-08	2.787E-08	1.697E-08	1.166E-08	9.457E-09	1.253E-08	6.353E-09	3.146E-09	2.015E-09	1.429E-09
ENE	1.195E-08	1.539E-08	1.188E-08	8.477E-09	6.723E-09	7.164E-09	3.548E-09	1.803E-09	1.202E-09	8.617E-10
E	3.399E-08	2.374E-08	1.465E-08	9.903E-09	7.609E-09	6.161E-09	2.720E-09	1.313E-09	8.217E-10	5.878E-10
ESE	2.663E-08	2.080E-08	1.411E-08	9.891E-09	7.744E-09	7.790E-09	3.874E-09	1.969E-09	1.263E-09	9.047E-10
SE	4.611E-08	3.882E-08	2.623E-08	1.777E-08	1.281E-08	6.804E-09	3.306E-09	2.005E-09	1.444E-09	1.051E-09
SSE	6.620E-08	4.390E-08	2.691E-08	2.179E-08	2.852E-08	1.619E-08	6.616E-09	2.918E-09	1.827E-09	1.289E-09

ERP ELEVATED STACK RELEASE - APR-JUNE 1988
8.000 DAY DECAY, DEPLETED
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	4.683E-08	8.957E-08	1.064E-07	8.669E-08	6.175E-08	4.619E-08	3.571E-08	2.851E-08	2.3[illegible]E-08	2.661E-08	3.931E-08
SSW	3.044E-08	3.776E-08	4.886E-08	4.757E-08	4.093E-08	3.283E-08	2.629E-08	2.767E-08	2.578E-08	2.553E-08	2.[illegible]1E-08
SW	3.228E-08	2.698E-08	4.256E-08	6.881E-08	8.976E-08	5.788E-08	4.039E-08	2.993E-08	2.319E-08	1.859E-08	1.572E-08
WSW	3.122E-08	5.002E-08	7.922E-08	1.086E-07	1.297E-07	7.694E-08	5.108E-08	3.660E-08	2.768E-08	2.180E-08	1.770E-08
W	3.569E-08	7.204E-08	1.490E-07	1.619E-07	1.443E-07	8.887E-08	6.069E-08	4.450E-08	3.432E-08	2.748E-08	2.265E-08
WNW	6.629E-08	6.360E-08	1.011E-07	1.467E-07	1.944E-07	1.190E-07	8.082E-08	6.182E-08	4.921E-08	3.888E-08	3.165E-08
NW	1.390E-07	1.324E-07	1.406E-07	1.850E-07	2.971E-07	1.762E-07	1.171E-07	8.696E-08	6.755E-08	5.350E-08	4.333E-08
NNW	1.942E-07	2.080E-07	1.860E-07	1.571E-07	1.597E-07	1.480E-07	1.341E-07	1.186E-07	1.057E-07	8.296E-08	6.717E-08
N	2.959E-07	3.355E-07	2.760E-07	1.902E-07	1.246E-07	9.555E-08	7.682E-08	6.235E-08	5.190E-08	4.410E-08	3.811E-08
NNE	6.283E-08	1.401E-07	1.329E-07	9.534E-08	6.241E-08	4.611E-08	3.588E-08	2.893E-08	2.398E-08	2.032E-08	1.755E-08
NE	4.221E-09	3.298E-08	4.677E-08	3.886E-08	2.756E-08	2.085E-08	1.646E-08	1.342E-08	1.123E-08	9.597E-09	8.349E-09
ENE	6.686E-11	4.186E-09	1.171E-08	1.541E-08	1.638E-08	1.416E-08	1.174E-08	9.757E-09	8.208E-09	7.005E-09	6.065E-09
E	2.374E-09	2.785E-08	3.836E-08	3.231E-08	2.369E-08	1.869E-08	1.424E-08	1.159E-08	9.517E-09	8.028E-09	6.889E-09
ESE	5.921E-09	2.480E-08	2.830E-08	2.534E-08	2.127E-08	1.722E-08	1.392E-08	1.142E-08	9.538E-09	8.111E-09	7.011E-09
SE	1.612E-08	3.817E-08	4.875E-08	4.648E-08	4.014E-08	3.225E-08	2.568E-08	2.073E-08	1.705E-08	1.428E-08	1.215E-08
SSE	1.709E-08	6.211E-08	7.341E-08	6.007E-08	4.382E-08	3.336E-08	2.615E-08	2.106E-08	1.739E-08	2.[illegible]16E-08	1.158E-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	2.781E-08	2.314E-08	1.498E-08	8.354E-09	5.778E-09	4.277E-09	3.223E-09	2.533E-09	2.092E-09	1.76[illegible]-09	1.500E-09
SSW	2.220E-08	2.096E-08	1.340E-08	7.346E-09	5.046E-09	3.696E-09	2.800E-09	2.212E-09	1.803E-09	1.503E-09	1.276[illegible]-09
SW	1.368E-08	8.889E-09	5.550E-09	2.956E-09	1.896E-09	1.333E-09	1.006E-09	7.844E-10	6.314E-10	5.208E-10	4.381E-10
WSW	1.517E-08	8.570E-09	5.559E-09	3.045E-09	1.936E-09	1.361E-09	1.019E-09	7.970E-10	6.437E-10	5.328E-10	4.495E-10
W	1.911E-08	1.044E-08	7.475E-09	4.720E-09	3.355E-09	2.408E-09	1.821E-09	1.437E-09	1.169E-09	9.734E-10	8.257E-10
WNW	2.665E-08	1.427E-08	9.249E-09	5.125E-09	3.220E-09	2.262E-09	1.709E-09	1.345E-09	1.088E-09	9.014E-10	7.609E-10
NW	3.653E-08	1.969E-08	1.291E-08	7.279E-09	4.684E-09	3.322E-09	2.541E-09	2.008E-09	1.631E-09	1.357E-09	1.150E-09
NNW	5.692E-08	3.122E-08	1.964E-08	1.055E-08	6.612E-09	4.584E-09	3.422E-09	2.685E-09	2.208E-09	1.843E-09	1.559E-09
N	3.350E-08	2.092E-08	1.[illegible]39E-08	1.420E-08	1.186E-08	9.418E-09	7.218E-09	5.735E-09	4.691E-09	3.926E-09	3.347E-09
NNE	1.922E-08	2.894E-08	[illegible]19E-08	9.8[illegible]6E-09	6.370E-09	4.519E-09	3.408E-09	2.681E-09	2.175E-09	1.807E-09	1.529E-09
NE	9.393E-09	1.637E-08	1.[illegible]033E-08	5.621E-09	3.604E-09	2.547E-09	1.950E-09	1.557E-09	1.275E-09	1.064E-09	9.037E-10
ENE	6.364E-09	8.814E-09	5.[illegible]627E-09	2.041E-09	1.956E-09	1.369E-09	1.063E-09	8.577E-10	6.977E-10	5.809E-10	4.927E-10
E	7.0[illegible]3E-09	7.044E-09	4.401E-09	2.349E-09	1.473E-09	1.022E-09	7.550E-10	5.843E-10	4.749E-10	3.942E-10	3.305E-10
ESE	7.233E-09	9.426E-09	6.092E-09	3.383E-09	2.166E-09	1.525E-09	1.140E-09	8.896E-10	7.159E-10	5.896E-10	4.949E-10
SE	1.050E-08	6.079E-09	4.468E-09	3.101E-09	2.294E-09	1.860E-09	1.399E-09	1.[illegible]E-09	1.164E-09	9.837E-10	8.450E-10
SSE	2.707E-08	1.528E-08	9.499E-09	5.095E-09	3.259E-09	2.301E-09	1.729E-09	[illegible]	1.098E-09	9.102E-10	7.691E-10

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.389E-08	6.035E-08	3.561E-08	2.607E-08	2.829E-08	2.055E-08	8.681E-09	4.256E-09	2.563E-09	1.764E-09
SSW	4.582E-08	3.881E-08	2.059E-08	2.723E-08	2.349E-08	1.788E-08	7.669E-09	3.697E-09	2.224E-09	1.507E-09
SW	5.076E-08	7.094E-08	4.087E-08	2.336E-08	1.568E-08	8.470E-09	3.061E-09	1.352E-09	7.895E-10	5.229E-10
WSW	8.570E-08	1.016E-07	5.219E-08	2.799E-08	1.798E-08	8.699E-09	3.111E-09	1.377E-09	8.020E-10	5.348E-10
W	1.421E-07	1.236E-07	6.173E-08	3.462E-08	2.277E-08	1.105E-08	4.726E-09	2.426E-09	1.445E-09	9.766E-10
WNW	1.130E-07	1.503E-07	8.340E-08	4.888E-08	3.194E-08	1.479E-08	5.195E-09	2.297E-09	1.351E-09	9.047E-10
NW	1.585E-07	2.185E-07	1.210E-07	6.767E-08	4.376E-08	2.042E-08	7.378E-09	3.273E-09	2.01[illegible]E-09	1.361E-09
NNW	1.780E-07	1.539E-07	1.316E-07	1.007E-07	6.805E-08	3.178E-08	1.082E-08	4.660E-09	2.714E-09	1.846E-09
N	2.511E-07	1.263E-07	7.602E-08	5.191E-08	3.818E-08	2.214E-08	1.387E-08	9.188E-09	5.761E-09	3.938E-09
NNE	1.178E-07	6.248E-08	3.583E-08	2.400E-08	1.899E-08	2.200E-08	1.617E-08	4.568E-09	2.696E-09	1.853E-09
NE	4.019E-08	2.709E-08	1.641E-08	1.123E-08	9.105E-09	1.213E-08	5.771E-09	2.590E-09	1.562E-09	1.067E-09
ENE	1.175E-08	1.518E-08	1.159E-08	8.192E-09	6.454E-09	[illegible]-09	3.147E-09	1.404E-09	8.558E-10	5.829E-10
E	7.333E-08	2.312E-08	1.417E-08	9.518E-09	7.284E-09	[illegible]-09	2.416E-09	1.036E-09	5.917E-10	3.945E-10
ESE	2.621E-08	2.038E-08	1.380E-08	9.531E-09	7.419E-09	[illegible]-09	3.444E-09	1.542E-09	8.950E-10	5.919E-10
SE	4.540E-08	3.804E-08	2.545E-08	1.705E-08	1.217E-08	[illegible]E-09	3.046E-09	1.870E-09	1.369E-09	9.859E-10
SSE	6.497E-08	4.278E-08	2.604E-08	2.102E-08	2.771E-08	[illegible]33E-08	5.258E-09	2.328E-09	1.364E-09	9.135E-10

ERP ELEVATED STACK RELEASE - APR-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	DISTANCES IN MILES 0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	9.025E-09	6.962E-09	5.356E-09	3.376E-09	1.518E-09	8.983E-10	5.957E-10	4.234E-10	3.154E-10	2.562E-10	2.243E-10
SSW	3.051E-09	2.575E-09	2.326E-09	1.685E-09	8.556E-10	5.340E-10	3.642E-10	2.628E-10	2.427E-10	1.834E-10	1.436E-10
SW	2.491E-09	2.078E-09	1.843E-09	1.317E-09	1.120E-09	6.034E-10	3.724E-10	2.523E-10	1.821E-10	1.377E-10	1.078E-10
WSW	3.581E-09	2.895E-09	2.434E-09	2.971E-09	1.336E-09	7.167E-10	4.410E-10	2.983E-10	2.152E-10	1.626E-10	1.273E-10
W	2.211E-09	4.686E-09	3.547E-09	2.097E-09	1.025E-09	5.359E-10	3.248E-10	2.173E-10	1.556E-10	1.171E-10	9.170E-11
WNW	3.835E-09	2.988E-09	4.157E-09	2.501E-09	1.365E-09	6.857E-10	4.103E-10	2.779E-10	2.083E-10	1.655E-10	1.391E-10
NW	1.061E-08	7.881E-09	5.592E-09	4.398E-09	2.210E-09	1.105E-09	6.611E-10	4.460E-10	3.291E-10	2.608E-10	2.179E-10
NNW	1.795E-08	1.330E-08	9.393E-09	5.385E-09	2.983E-09	1.572E-09	9.640E-10	7.415E-10	5.484E-10	4.356E-10	3.650E-10
N	3.886E-08	2.867E-08	2.002E-08	1.133E-08	4.516E-09	2.511E-09	1.606E-09	1.118E-09	8.240E-10	6.323E-10	5.004E-10
NNE	1.360E-08	1.010E-08	7.170E-09	4.136E-09	1.688E-09	9.511E-10	6.129E-10	4.288E-10	3.168E-10	2.434E-10	1.926E-10
NE	2.737E-09	2.121E-09	1.648E-09	1.049E-09	4.759E-10	2.830E-10	1.881E-10	1.339E-10	9.982E-11	7.697E-11	6.093E-11
ENE	5.719E-10	5.716E-10	6.433E-10	5.347E-10	2.981E-10	1.927E-10	1.337E-10	9.739E-11	7.344E-11	5.690E-11	4.506E-11
E	2.744E-09	2.163E-09	1.737E-09	1.141E-09	5.336E-10	3.217E-10	2.154E-10	1.540E-10	1.150E-10	8.877E-11	7.027E-11
ESE	3.289E-09	2.576E-09	2.042E-09	1.325E-09	6.126E-10	3.674E-10	2.454E-10	1.751E-10	1.307E-10	1.009E-10	7.984E-11
SE	3.858E-09	3.131E-09	2.649E-09	1.823E-09	8.877E-10	5.447E-10	3.682E-10	2.645E-10	1.981E-10	1.530E-10	1.212E-10
SSE	6.295E-09	4.882E-09	3.797E-09	2.419E-09	1.099E-09	6.540E-10	4.349E-10	3.096E-10	2.308E-10	2.101E-10	1.971E-10

DIRECTION FROM SITE	DISTANCES IN MILES 5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.806E-10	1.329E-10	9.241E-11	5.476E-11	3.525E-11	2.423E-11	1.735E-11	1.301E-11	9.978E-12	7.957E-12	6.497E-12
SSW	1.156E-10	8.956E-11	6.272E-11	3.722E-11	2.371E-11	1.613E-11	1.157E-11	8.693E-12	6.744E-12	5.387E-12	4.397E-12
SW	8.708E-11	5.294E-11	3.479E-11	1.956E-11	1.239E-11	9.547E-12	6.825E-12	5.157E-12	4.010E-12	3.203E-12	2.614E-12
WSW	1.035E-10	6.397E-11	4.246E-11	2.796E-11	1.692E-11	1.134E-11	8.129E-12	6.104E-12	4.746E-12	3.791E-12	3.094E-12
W	7.420E-11	3.462E-11	4.522E-11	2.798E-11	1.713E-11	1.149E-11	8.230E-12	6.180E-12	4.805E-12	3.838E-12	3.133E-12
WNW	1.232E-10	7.906E-11	5.812E-11	3.591E-11	2.228E-11	1.432E-11	1.014E-11	7.618E-12	5.923E-12	4.731E-12	3.862E-12
NW	1.902E-10	1.184E-10	8.593E-11	5.152E-11	3.131E-11	2.103E-11	1.529E-11	1.148E-11	8.950E-12	7.149E-12	5.835E-12
NNW	3.194E-10	2.003E-10	1.460E-10	9.004E-11	5.871E-11	3.988E-11	2.654E-11	1.906E-11	1.475E-11	1.178E-11	9.616E-12
N	4.058E-10	1.955E-10	1.215E-10	6.693E-11	1.224E-10	7.385E-11	5.292E-11	3.974E-11	3.090E-11	2.468E-11	2.014E-11
NNE	1.561E-10	1.958E-10	1.206E-10	6.223E-11	3.792E-11	2.540E-11	1.816E-11	1.361E-11	1.056E-11	8.422E-12	6.866E-12
NE	4.927E-11	7.812E-11	4.906E-11	2.588E-11	1.590E-11	1.066E-11	7.390E-12	5.491E-12	4.253E-12	3.397E-12	2.773E-12
ENE	3.633E-11	4.289E-11	3.139E-11	1.924E-11	1.232E-11	8.184E-12	5.764E-12	4.064E-12	3.161E-12	2.526E-12	2.063E-12
E	5.679E-11	4.481E-11	3.039E-11	1.762E-11	1.128E-11	7.652E-12	5.519E-12	4.163E-12	3.244E-12	2.708E-12	2.210E-12
ESE	6.453E-11	6.271E-11	4.470E-11	2.698E-11	1.737E-11	1.170E-11	8.359E-12	6.240E-12	4.822E-12	3.845E-12	3.135E-12
SE	9.785E-11	4.667E-11	2.867E-11	1.538E-11	9.621E-12	6.758E-12	5.131E-12	8.493E-12	6.581E-12	5.261E-12	4.301E-12
SSE	1.662E-10	1.267E-10	7.777E-11	3.995E-11	2.432E-11	1.630E-11	1.167E-11	8.747E-12	6.792E-12	5.421E-12	4.421E-12

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	4.633E-09	1.655E-09	6.075E-10	3.237E-10	2.176E-10	1.255E-10	5.446E-11	2.442E-11	1.309E-11	8.015E-12
SSW	2.096E-09	8.970E-10	3.689E-10	2.259E-10	1.450E-10	8.341E-11	3.688E-11	1.633E-11	8.771E-12	5.422E-12
SW	1.661E-09	9.340E-10	3.859E-10	1.852E-10	1.090E-10	5.246E-11	1.976E-11	9.217E-12	5.197E-12	3.224E-12
WSW	2.775E-09	1.424E-09	4.574E-10	2.189E-10	1.289E-10	6.320E-11	2.627E-11	1.155E-11	6.165E-12	3.816E-12
W	3.156E-09	1.046E-09	3.381E-10	1.586E-10	9.276E-11	4.813E-11	2.699E-11	1.169E-11	6.242E-12	3.863E-12
WNW	3.161E-09	1.316E-09	4.308E-10	2.119E-10	1.410E-10	7.956E-11	3.479E-11	1.477E-11	7.694E-12	4.762E-12
NW	5.570E-09	2.205E-09	6.935E-10	3.365E-10	2.204E-10	1.199E-10	5.018E-11	2.147E-11	1.160E-11	7.196E-12
NNW	8.481E-09	2.890E-09	1.037E-09	5.606E-10	3.691E-10	2.026E-10	8.854E-11	3.956E-11	1.955E-11	1.186E-11
N	1.808E-08	5.139E-09	1.652E-09	8.350E-10	5.044E-10	2.094E-10	1.037E-10	7.844E-11	4.014E-11	2.484E-11
NNE	6.473E-09	1.904E-09	6.295E-10	3.208E-10	1.941E-10	1.535E-10	6.440E-11	2.584E-11	1.375E-11	8.479E-12
NE	1.487E-09	5.175E-10	1.917E-10	1.009E-10	6.136E-11	5.879E-11	2.660E-11	1.075E-11	5.562E-12	3.420E-12
ENE	5.791E-10	3.038E-10	1.349E-10	7.399E-11	4.533E-11	3.632E-11	1.886E-11	8.318E-12	4.206E-12	2.543E-12
E	1.567E-09	5.744E-10	2.192E-10	1.161E-10	7.076E-11	4.106E-11	1.764E-11	7.766E-12	4.200E-12	2.682E-12
ESE	1.842E-09	6.619E-10	2.498E-10	1.320E-10	8.040E-11	5.511E-11	2.664E-11	1.187E-11	6.305E-12	3.871E-12
SE	2.389E-09	9.430E-10	3.738E-10	1.999E-10	1.220E-10	5.004E-11	1.577E-11	6.871E-12	6.804E-12	5.297E-12
SSE	3.426E-09	1.195E-09	4.632E-10	2.454E-10	1.895E-10	1.137E-10	4.141E-11	1.658E-11	8.837E-12	5.457E-12

ERP ELEVATED STACK RELEASE - APR-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER) NO DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 2.250 DAY DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 8.000 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	SITE BOUNDARY	S	0.80	1287.	1.047E-07	1.045E-07	1.023E-07	4.879E-09
A	SITE BOUNDARY	SSW	0.82	1327.	4.954E-08	4.945E-08	4.860E-08	2.128E-09
A	SITE BOUNDARY	SW	0.98	1569.	6.681E-08	6.672E-08	6.638E-08	1.373E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.013E-07	1.011E-07	1.000E-07	3.010E-09
A	SITE BOUNDARY	W	0.91	1468.	1.624E-07	1.622E-07	1.598E-07	2.493E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.369E-07	1.367E-07	1.352E-07	2.844E-09
A	SITE BOUNDARY	NW	0.81	1307.	1.485E-07	1.483E-07	1.460E-07	4.851E-09
A	SITE BOUNDARY	NNW	0.69	1106.	1.925E-07	1.923E-07	1.887E-07	1.019E-08
A	SITE BOUNDARY	N	0.67	1086.	2.975E-07	2.974E-07	2.918E-07	2.218E-08
A	SITE BOUNDARY	NNE	0.60	965.	1.423E-07	1.422E-07	1.401E-07	8.752E-09
A	SITE BOUNDARY	NE	0.62	1005.	4.271E-08	4.265E-08	4.200E-08	1.847E-09
A	SITE BOUNDARY	ENE	0.59	945.	6.781E-09	6.776E-09	6.702E-09	5.882E-10
A	SITE BOUNDARY	E	0.53	845.	2.993E-08	2.991E-08	2.961E-08	2.106E-09
A	SITE BOUNDARY	ESE	0.54	865.	2.579E-08	2.578E-08	2.550E-08	2.471E-09
A	SITE BOUNDARY	SE	0.65	1046.	4.529E-08	4.525E-08	4.455E-08	2.790E-09
A	SITE BOUNDARY	SSE	0.81	1307.	7.136E-08	7.130E-08	6.978E-08	3.388E-09
A	NEAR. RESIDENCE	SW	1.30	2092.	8.820E-08	8.801E-08	8.722E-08	1.503E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	1.313E-07	1.311E-07	1.292E-07	1.801E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.646E-07	1.643E-07	1.619E-07	2.097E-09
A	NEAR. RESIDENCE	WNW	1.60	2576.	1.770E-07	1.766E-07	1.743E-07	1.167E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	1.629E-07	1.627E-07	1.605E-07	5.195E-09
A	NEAR. RESIDENCE	NNW	1.90	3059.	1.537E-07	1.534E-07	1.507E-07	1.762E-09
A	NEAR. RESIDENCE	N	3.00	4829.	6.476E-08	6.457E-08	6.233E-08	1.118E-09
A	NEAR. RESIDENCE	NNE	2.40	3863.	3.905E-08	3.893E-08	3.760E-08	6.639E-10
A	NEAR. RESIDENCE	ENE	1.70	2737.	1.588E-08	1.585E-08	1.561E-08	2.458E-10
A	NEAR. RESIDENCE	E	1.80	2898.	2.069E-08	2.064E-08	2.007E-08	3.754E-10
A	NEAR. RESIDENCE	ESE	2.00	3220.	1.767E-08	1.763E-08	1.722E-08	3.672E-10
A	NEAR. RESIDENCE	SE	2.20	3542.	3.030E-08	3.020E-08	2.941E-08	4.612E-10
A	NEAREST COW	NNW	3.50	5634.	1.080E-07	1.075E-07	1.057E-07	5.482E-10
A	NEAREST GARDEN	SW	2.20	3541.	5.118E-08	5.097E-08	4.971E-08	4.905E-10
A	NEAREST GARDEN	WSW	1.30	2092.	1.313E-07	1.311E-07	1.292E-07	1.801E-09
A	NEAREST GARDEN	W	2.20	3541.	7.754E-08	7.730E-08	7.551E-08	4.321E-10
A	NEAREST GARDEN	WNW	1.60	2576.	1.770E-07	1.766E-07	1.743E-07	1.167E-09
A	NEAREST GARDEN	NW	2.80	4507.	1.001E-07	9.961E-08	9.743E-08	5.156E-10
A	NEAREST GARDEN	NNW	1.90	3059.	1.537E-07	1.534E-07	1.507E-07	1.762E-09
A	NEAREST GARDEN	NNE	2.70	4346.	3.413E-08	3.401E-08	3.279E-08	5.270E-10
A	NEAREST GARDEN	ENE	1.70	2737.	1.588E-08	1.585E-08	1.561E-08	2.458E-10
A	NEAREST GARDEN	E	2.00	3220.	1.868E-08	1.863E-08	1.809E-08	3.215E-10
A	NEAREST GARDEN	ESE	2.70	4346.	1.327E-08	1.322E-08	1.283E-08	2.130E-10
A	NEAREST GARDEN	SE	2.20	3541.	3.031E-08	3.021E-08	2.942E-08	4.615E-10

Atmospheric Diffusion Estimates
Elevated Releases
January-June 1988

ERP ELEVATED STACK RELEASE - JAN-JUNE 1988
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	2.424E-08	6.402E-08	9.853E-08	9.814E-08	8.550E-08	6.889E-08	5.509E-08	4.466E-08	3.689E-08	4.033E-08	4.232E-08
SSW	1.530E-08	2.032E-08	3.181E-08	3.646E-08	3.622E-08	3.072E-08	2.530E-08	2.694E-08	2.771E-08	2.442E-08	2.188E-08
SW	1.758E-08	1.899E-08	3.036E-08	5.075E-08	7.243E-08	4.805E-08	3.417E-08	2.567E-08	2.012E-08	1.629E-08	1.353E-08
WSW	1.787E-08	3.243E-08	5.501E-08	8.517E-08	1.166E-07	7.166E-08	4.876E-08	3.561E-08	2.736E-08	2.183E-08	1.793E-08
W	2.145E-08	6.933E-08	1.448E-07	1.663E-07	1.455E-07	8.924E-08	6.061E-08	4.418E-08	3.390E-08	2.701E-08	2.216E-08
WNW	4.676E-08	5.442E-08	9.694E-08	1.438E-07	1.858E-07	1.139E-07	7.747E-08	5.910E-08	4.692E-08	3.714E-08	3.032E-08
NW	7.298E-08	7.698E-08	1.068E-07	1.636E-07	2.714E-07	1.623E-07	1.089E-07	8.090E-08	6.312E-08	5.004E-08	4.091E-08
NNW	9.762E-08	1.145E-07	1.235E-07	1.224E-07	1.340E-07	1.263E-07	1.187E-07	1.105E-07	1.040E-07	8.254E-08	6.756E-08
N	1.573E-07	1.845E-07	1.627E-07	1.221E-07	8.927E-08	7.192E-08	5.920E-08	4.872E-08	4.095E-08	3.506E-08	3.049E-08
NNE	3.848E-08	8.756E-08	9.453E-08	7.663E-08	5.890E-08	4.731E-08	3.870E-08	3.226E-08	2.740E-08	2.366E-08	2.073E-08
NE	4.085E-09	2.668E-08	3.699E-08	3.355E-08	2.814E-08	2.337E-08	1.945E-08	1.639E-08	1.403E-08	1.218E-08	1.073E-08
ENE	6.426E-10	7.559E-09	1.588E-08	1.916E-08	1.980E-08	1.726E-08	1.450E-08	1.219E-08	1.036E-08	8.925E-09	7.791E-09
E	1.084E-08	2.315E-08	2.941E-08	2.630E-08	2.211E-08	1.852E-08	1.552E-08	1.314E-08	1.127E-08	9.803E-09	8.633E-09
ESE	3.802E-09	2.166E-08	3.328E-08	3.554E-08	3.431E-08	2.944E-08	2.462E-08	2.066E-08	1.754E-08	1.511E-08	1.318E-08
SE	2.004E-08	4.340E-08	6.899E-08	7.737E-08	7.532E-08	6.322E-08	5.160E-08	4.236E-08	3.528E-08	2.984E-08	2.562E-08
SSE	1.595E-08	6.163E-08	8.685E-08	8.494E-08	7.469E-08	6.132E-08	4.993E-08	4.116E-08	3.452E-08	4.897E-08	6.445E-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	3.748E-08	2.585E-08	1.684E-08	9.710E-09	6.935E-09	5.319E-09	4.159E-09	3.381E-09	2.862E-09	2.466E-09	2.143E-09
SSW	2.061E-08	1.743E-08	1.141E-08	6.618E-09	4.780E-09	3.613E-09	2.827E-09	2.301E-09	1.927E-09	1.648E-09	1.434E-09
SW	1.221E-08	8.436E-09	5.481E-09	3.142E-09	2.191E-09	1.650E-09	1.308E-09	1.058E-09	8.816E-10	7.509E-10	6.508E-10
WSW	1.562E-08	9.668E-09	6.707E-09	4.038E-09	2.708E-09	1.991E-09	1.551E-09	1.257E-09	1.049E-09	8.945E-10	7.761E-10
W	1.862E-08	1.001E-08	7.005E-09	4.441E-09	3.223E-09	2.381E-09	1.854E-09	1.502E-09	1.252E-09	1.067E-09	9.256E-10
WNW	2.560E-08	1.401E-08	9.331E-09	5.503E-09	3.737E-09	2.769E-09	2.171E-09	1.764E-09	1.471E-09	1.254E-09	1.087E-09
NW	3.469E-08	1.937E-08	1.319E-08	7.979E-09	5.404E-09	4.004E-09	3.185E-09	2.600E-09	2.177E-09	1.862E-09	1.620E-09
NNW	5.818E-08	3.414E-08	2.240E-08	1.306E-08	8.956E-09	6.697E-09	5.334E-09	4.403E-09	3.776E-09	3.260E-09	2.845E-09
N	2.695E-08	1.713E-08	1.453E-08	1.223E-08	1.059E-08	8.845E-09	6.988E-09	5.708E-09	4.787E-09	4.101E-09	3.573E-09
NNE	2.328E-08	3.483E-08	2.263E-08	1.303E-08	8.864E-09	6.586E-09	5.174E-09	4.223E-09	3.544E-09	3.038E-09	2.648E-09
NE	1.226E-08	1.980E-08	1.289E-08	7.444E-09	5.069E-09	3.771E-09	2.999E-09	2.465E-09	2.076E-09	1.778E-09	1.549E-09
ENE	8.256E-09	1.063E-08	6.966E-09	4.048E-09	2.762E-09	2.056E-09	1.671E-09	1.392E-09	1.166E-09	9.977E-10	8.682E-10
E	9.430E-09	1.196E-08	7.812E-09	4.520E-09	3.077E-09	2.287E-09	1.795E-09	1.464E-09	1.249E-09	1.083E-09	9.418E-10
ESE	1.368E-08	1.599E-08	1.057E-08	6.201E-09	4.252E-09	3.176E-09	2.503E-09	2.047E-09	1.721E-09	1.477E-09	1.288E-09
SE	2.228E-08	1.319E-08	9.731E-09	6.528E-09	4.687E-09	3.663E-09	3.024E-09	2.588E-09	2.169E-09	1.857E-09	1.616E-09
SSE	5.561E-08	3.260E-08	2.104E-08	1.201E-08	8.114E-09	5.999E-09	4.694E-09	3.819E-09	3.196E-09	2.733E-09	2.377E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	9.069E-08	8.093E-08	5.460E-08	4.042E-08	3.953E-08	2.443E-08	1.006E-08	5.286E-09	3.406E-09	2.464E-09
SSW	3.132E-08	3.383E-08	2.740E-08	2.624E-08	2.216E-08	1.546E-08	6.865E-09	3.610E-09	2.309E-09	1.651E-09
SW	3.690E-08	5.678E-08	3.447E-08	2.025E-08	1.386E-08	7.960E-09	3.239E-09	1.657E-09	1.062E-09	7.525E-10
WSW	6.340E-08	8.966E-08	4.961E-08	2.761E-08	1.823E-08	9.676E-09	4.040E-09	2.006E-09	1.262E-09	8.964E-10
W	1.376E-07	1.251E-07	6.167E-08	3.421E-08	2.229E-08	1.059E-08	4.470E-09	2.395E-09	1.507E-09	1.070E-09
WNW	1.083E-07	1.445E-07	7.985E-08	4.668E-08	3.060E-08	1.451E-08	5.569E-09	2.788E-09	1.769E-09	1.256E-09
NW	1.254E-07	1.989E-07	1.119E-07	6.322E-08	4.131E-08	2.003E-08	7.992E-09	4.059E-09	2.606E-09	1.865E-09
NNW	1.210E-07	1.280E-07	1.174E-07	9.768E-08	6.852E-08	3.426E-08	1.331E-08	6.754E-09	4.430E-09	3.259E-09
N	1.495E-07	8.886E-08	5.840E-08	4.093E-08	3.053E-08	1.816E-08	1.201E-08	8.568E-09	5.723E-09	4.109E-09
NNE	8.503E-08	5.769E-08	3.842E-08	2.736E-08	2.254E-08	2.684E-08	1.331E-08	6.629E-09	4.236E-09	3.043E-09
NE	3.317E-08	2.722E-08	1.927E-08	1.400E-08	1.173E-08	1.505E-08	7.598E-09	3.808E-09	2.469E-09	1.781E-09
ENE	1.549E-08	1.853E-08	1.431E-08	1.034E-08	8.299E-09	8.472E-09	4.125E-09	2.090E-09	1.386E-09	9.996E-10
E	2.664E-08	2.145E-08	1.537E-08	1.125E-08	9.275E-09	9.553E-09	4.611E-09	2.301E-09	1.477E-09	1.080E-09
ESE	3.170E-08	3.242E-08	2.432E-08	1.750E-08	1.394E-08	1.307E-08	6.307E-09	3.194E-09	2.053E-09	1.479E-09
SE	6.703E-08	7.040E-08	5.100E-08	3.523E-08	2.563E-08	1.368E-08	6.422E-09	3.681E-09	2.553E-09	1.860E-09
SSE	8.039E-08	7.103E-08	4.946E-08	4.192E-08	5.659E-08	3.258E-08	1.228E-08	6.041E-09	3.832E-09	2.738E-09

ERP ELEVATED STACK RELEASE - JAN-JUNE 1988
2.260 DAY 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	2.424E-08	6.397E-08	9.840E-08	9.797E-08	8.529E-08	6.866E-08	5.485E-08	4.443E-08	3.667E-08	4.006E-08	4.200E-08
SSW	1.530E-08	2.030E-08	3.176E-08	3.639E-08	3.612E-08	3.060E-08	2.518E-08	2.679E-08	2.751E-08	2.421E-08	2.167E-08
SW	1.758E-08	1.898E-08	3.033E-08	5.067E-08	7.223E-08	4.787E-08	3.401E-08	2.553E-08	1.998E-08	1.616E-08	1.341E-08
WSW	1.787E-08	3.241E-08	5.495E-08	8.504E-08	1.164E-07	7.142E-08	4.856E-08	3.543E-08	2.720E-08	2.168E-08	1.779E-08
W	2.144E-08	6.927E-08	1.446E-07	1.660E-07	1.451E-07	8.891E-08	6.033E-08	4.394E-08	3.367E-08	2.681E-08	2.198E-08
WNW	4.674E-08	5.438E-08	9.683E-08	1.436E-07	1.853E-07	1.135E-07	7.710E-08	5.877E-08	4.660E-08	3.686E-08	3.006E-08
NW	7.296E-08	7.693E-08	1.067E-07	1.634E-07	2.707E-07	1.617E-07	1.085E-07	8.050E-08	6.275E-08	4.970E-08	4.060E-08
NNW	9.760E-08	1.144E-07	1.233E-07	1.222E-07	1.337E-07	1.259E-07	1.183E-07	1.100E-07	1.035E-07	8.208E-08	6.713E-08
N	1.573E-07	1.844E-07	1.626E-07	1.220E-07	8.912E-08	7.175E-08	5.903E-08	4.855E-08	4.079E-08	3.490E-08	3.033E-08
NNE	3.847E-08	8.751E-08	9.446E-08	7.654E-08	5.878E-08	4.718E-08	3.856E-08	3.212E-08	2.726E-08	2.351E-08	2.059E-08
NE	4.084E-09	2.665E-08	3.693E-08	3.348E-08	2.806E-08	2.328E-08	1.935E-08	1.629E-08	1.393E-08	1.209E-08	1.064E-08
ENE	6.425E-10	7.554E-09	1.587E-08	1.913E-08	1.976E-08	1.721E-08	1.445E-08	1.214E-08	1.031E-08	8.874E-09	7.740E-09
E	1.084E-08	2.314E-08	2.938E-08	2.626E-08	2.207E-08	1.847E-08	1.547E-08	1.309E-08	1.122E-08	9.747E-09	8.577E-09
ESE	3.801E-09	2.165E-08	3.326E-08	3.550E-08	3.425E-08	2.937E-08	2.454E-08	2.058E-08	1.747E-08	1.503E-08	1.311E-08
SE	2.004E-08	4.337E-08	6.894E-08	7.729E-08	7.518E-08	6.305E-08	5.143E-08	4.219E-08	3.511E-08	2.968E-08	2.546E-08
SSE	1.595E-08	6.160E-08	8.678E-08	8.484E-08	7.456E-08	6.116E-08	4.977E-08	4.099E-08	3.435E-08	4.867E-08	6.396E-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	3.716E-08	2.550E-08	1.654E-08	9.449E-09	6.683E-09	5.074E-09	3.930E-09	3.165E-09	2.653E-09	2.263E-09	1.948E-09
SSW	2.038E-08	1.711E-08	1.113E-08	6.376E-09	4.544E-09	3.390E-09	2.619E-09	2.104E-09	1.740E-09	1.470E-09	1.263E-09
SW	1.209E-08	8.312E-09	5.374E-09	3.051E-09	2.108E-09	1.572E-09	1.234E-09	9.897E-10	8.168E-10	6.893E-10	5.919E-10
WSW	1.549E-08	9.541E-09	6.589E-09	3.931E-09	2.613E-09	1.904E-09	1.471E-09	1.181E-09	9.770E-10	8.259E-10	7.103E-10
W	1.845E-08	9.865E-09	6.866E-09	4.301E-09	3.080E-09	2.249E-09	1.731E-09	1.386E-09	1.142E-09	9.624E-10	8.251E-10
WNW	2.536E-08	1.380E-08	9.146E-09	5.338E-09	3.589E-09	2.632E-09	2.043E-09	1.647E-09	1.357E-09	1.145E-09	9.828E-10
NW	3.441E-08	1.913E-08	1.297E-08	7.790E-09	5.235E-09	3.849E-09	3.038E-09	2.462E-09	2.045E-09	1.737E-09	1.500E-09
NNW	5.777E-08	3.377E-08	2.207E-08	1.278E-08	8.695E-09	6.452E-09	5.102E-09	4.180E-09	3.556E-09	3.047E-09	2.640E-09
N	2.679E-08	1.698E-08	1.435E-08	1.200E-08	1.032E-08	8.554E-09	6.713E-09	5.447E-09	4.538E-09	3.862E-09	3.343E-09
NNE	2.311E-08	3.444E-08	2.229E-08	1.274E-08	8.599E-09	6.341E-09	4.944E-09	4.005E-09	3.336E-09	2.839E-09	2.456E-09
NE	1.214E-08	1.947E-08	1.261E-08	7.204E-09	4.852E-09	3.570E-09	2.809E-09	2.284E-09	1.902E-09	1.613E-09	1.390E-09
ENE	8.196E-09	1.050E-08	6.853E-09	3.949E-09	2.672E-09	1.973E-09	1.591E-09	1.314E-09	1.092E-09	9.266E-10	7.996E-10
E	9.361E-09	1.182E-08	7.689E-09	4.413E-09	2.980E-09	2.197E-09	1.711E-09	1.384E-09	1.172E-09	1.007E-09	8.692E-10
ESE	1.360E-08	1.583E-08	1.043E-08	6.071E-09	4.134E-09	3.065E-09	2.399E-09	1.949E-09	1.627E-09	1.386E-09	1.201E-09
SE	2.213E-08	1.306E-08	9.599E-09	6.393E-09	4.553E-09	3.527E-09	2.883E-09	2.440E-09	2.027E-09	1.719E-09	1.483E-09
SSE	5.514E-08	3.214E-08	2.064E-08	1.167E-08	7.804E-09	5.713E-09	4.426E-09	3.565E-09	2.953E-09	2.500E-09	2.153E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

SEGMENT BOUNDARIES IN MILES

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.056E-08	8.071E-08	5.436E-08	4.018E-08	3.963E-08	2.411E-08	9.794E-09	5.045E-09	3.189E-09	2.262E-09
SSW	3.127E-08	3.373E-08	2.727E-08	2.605E-08	2.194E-08	1.518E-08	6.618E-09	3.390E-09	2.113E-09	1.473E-09
SW	3.685E-08	5.661E-08	3.431E-08	2.011E-08	1.314E-08	7.845E-09	3.148E-09	1.580E-09	9.938E-10	6.910E-10
WSW	6.332E-08	8.943E-08	4.940E-08	2.745E-08	1.804E-08	9.551E-09	3.936E-09	1.920E-09	1.186E-09	8.279E-10
W	1.374E-07	1.248E-07	6.139E-08	3.399E-08	2.210E-08	1.044E-08	4.329E-09	2.263E-09	1.391E-09	9.648E-10
WNW	1.082E-07	1.441E-07	7.948E-08	4.637E-08	3.033E-08	1.430E-08	5.407E-09	2.652E-09	1.648E-09	1.148E-09
NW	1.253E-07	1.984E-07	1.115E-07	6.285E-08	4.101E-08	1.979E-08	7.806E-09	3.894E-09	2.468E-09	1.740E-09
NNW	1.208E-07	1.277E-07	1.170E-07	9.721E-08	6.809E-08	3.390E-08	1.303E-08	6.510E-09	4.205E-09	3.047E-09
N	1.494E-07	8.870E-08	5.823E-08	4.076E-08	3.037E-08	1.799E-08	1.177E-08	8.287E-09	5.462E-09	3.870E-09
NNE	8.495E-08	5.757E-08	3.828E-08	2.722E-08	2.239E-08	2.652E-08	1.302E-08	6.385E-09	4.019E-09	2.844E-09
NE	3.311E-08	2.714E-08	1.918E-08	1.390E-08	1.162E-08	1.479E-08	7.360E-09	3.608E-09	2.288E-09	1.616E-09
ENE	1.547E-08	1.849E-08	1.426E-08	1.029E-08	8.245E-09	8.365E-09	4.027E-09	2.007E-09	1.309E-09	9.286E-10
E	2.661E-08	2.140E-08	1.532E-08	1.119E-08	9.214E-09	9.436E-09	4.504E-09	2.211E-09	1.397E-09	1.005E-09
ESE	3.167E-08	3.236E-08	2.424E-08	1.743E-08	1.386E-08	1.293E-08	6.178E-09	3.084E-09	1.955E-09	1.389E-09
SE	6.697E-08	7.026E-08	5.083E-08	3.506E-08	2.548E-08	1.354E-08	6.288E-09	3.543E-09	2.409E-09	1.723E-09
SSE	8.032E-08	7.089E-08	4.929E-08	4.170E-08	5.616E-08	3.214E-08	1.194E-08	5.756E-09	3.578E-09	2.506E-09

ERP ELEVATED STACK RELEASE - JAN-JUNE 1988
8.000 DAY DECAY, DEPLETED
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	2.424E-08	6.345E-08	9.671E-08	9.632E-08	8.364E-08	6.698E-08	5.319E-08	4.283E-08	3.515E-08	3.838E-08	4.027E-08
SSW	1.530E-08	2.014E-08	3.131E-08	3.597E-08	3.560E-08	2.998E-08	2.452E-08	2.602E-08	2.669E-08	2.344E-08	2.094E-08
SW	1.758E-08	1.882E-08	3.002E-08	5.046E-08	7.145E-08	4.696E-08	3.314E-08	2.474E-08	1.928E-08	1.554E-08	1.285E-08
WSW	1.787E-08	3.214E-08	5.425E-08	8.435E-08	1.148E-07	6.992E-08	4.724E-08	3.430E-08	2.621E-08	2.082E-08	1.704E-08
W	2.145E-08	6.823E-08	1.431E-07	1.638E-07	1.424E-07	8.665E-08	5.848E-08	4.241E-08	3.239E-08	2.570E-08	2.101E-08
WNW	4.676E-08	5.395E-08	9.589E-08	1.422E-07	1.830E-07	1.115E-07	7.547E-08	5.739E-08	4.544E-08	3.581E-08	2.908E-08
NW	7.298E-08	7.628E-08	1.051E-07	1.617E-07	2.678E-07	1.590E-07	1.062E-07	7.857E-08	6.111E-08	4.823E-08	3.923E-08
NNW	9.762E-08	1.135E-07	1.211E-07	1.202E-07	1.317E-07	1.237E-07	1.162E-07	1.081E-07	1.019E-07	8.050E-08	6.557E-08
N	1.573E-07	1.828E-07	1.593E-07	1.191E-07	8.692E-08	6.985E-08	5.731E-08	4.699E-08	3.937E-08	3.360E-08	2.914E-08
NNE	3.848E-08	8.676E-08	9.255E-08	7.483E-08	5.740E-08	4.597E-08	3.746E-08	3.112E-08	2.634E-08	2.267E-08	1.982E-08
NE	4.085E-09	2.644E-08	3.623E-08	3.280E-08	2.746E-08	2.274E-08	1.885E-08	1.582E-08	1.350E-08	1.169E-08	1.027E-08
ENE	6.426E-10	7.493E-09	1.566E-08	1.892E-08	1.949E-08	1.689E-08	1.411E-08	1.180E-08	9.978E-09	8.557E-09	7.440E-09
E	1.084E-08	2.294E-08	2.883E-08	2.574E-08	2.162E-08	1.805E-08	1.508E-08	1.273E-08	1.089E-08	9.445E-09	8.299E-09
ESE	3.802E-09	2.147E-08	3.274E-08	3.502E-08	3.373E-08	2.880E-08	2.395E-08	1.999E-08	1.691E-08	1.450E-08	1.261E-08
SE	2.004E-08	4.302E-08	6.795E-08	7.639E-08	7.408E-08	6.176E-08	5.005E-08	4.081E-08	3.378E-08	2.840E-08	2.425E-08
SSE	1.595E-08	6.108E-08	8.530E-08	8.346E-08	7.320E-08	5.977E-08	4.839E-08	3.967E-08	3.309E-08	4.720E-08	6.247E-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	3.555E-08	2.411E-08	1.521E-08	8.234E-09	5.482E-09	3.959E-09	2.959E-09	2.309E-09	1.886E-09	1.575E-09	1.331E-09
SSW	1.970E-08	1.648E-08	1.043E-08	5.646E-09	3.790E-09	2.743E-09	2.067E-09	1.626E-09	1.319E-09	1.096E-09	9.271E-10
SW	1.157E-08	7.874E-09	4.951E-09	2.657E-09	1.724E-09	1.222E-09	9.311E-10	7.279E-10	5.874E-10	4.857E-10	4.094E-10
WSW	1.481E-08	8.955E-09	6.027E-09	3.432E-09	2.198E-09	1.554E-09	1.169E-09	9.179E-10	7.437E-10	6.173E-10	5.221E-10
W	1.759E-08	9.317E-09	6.408E-09	3.831E-09	2.621E-09	1.860E-09	1.397E-09	1.096E-09	8.871E-10	7.354E-10	6.213E-10
WNW	2.443E-08	1.294E-08	8.329E-09	4.573E-09	2.863E-09	2.003E-09	1.506E-09	1.181E-09	9.537E-10	7.883E-10	6.641E-10
NW	3.309E-08	1.791E-08	1.179E-08	6.692E-09	4.304E-09	3.051E-09	2.339E-09	1.849E-09	1.502E-09	1.249E-09	1.059E-09
NNW	5.619E-08	3.198E-08	2.025E-08	1.098E-08	6.911E-09	4.809E-09	3.606E-09	2.841E-09	2.352E-09	1.968E-09	1.667E-09
N	2.568E-08	1.617E-08	1.371E-08	1.158E-08	9.797E-09	7.795E-09	5.972E-09	4.744E-09	3.878E-09	3.244E-09	2.765E-09
NNE	2.294E-08	3.356E-08	2.106E-08	1.143E-08	7.353E-09	5.215E-09	3.933E-09	3.095E-09	2.511E-09	2.087E-09	1.767E-09
NE	1.178E-08	1.909E-08	1.200E-08	6.502E-09	4.158E-09	2.933E-09	2.234E-09	1.775E-09	1.450E-09	1.207E-09	1.024E-09
ENE	7.890E-09	1.019E-08	6.463E-09	3.505E-09	2.211E-09	1.540E-09	1.180E-09	9.403E-10	7.615E-10	6.315E-10	5.336E-10
E	9.090E-09	1.155E-08	7.292E-09	3.930E-09	2.465E-09	1.710E-09	1.264E-09	9.762E-10	7.923E-10	6.572E-10	5.519E-10
ESE	1.309E-08	1.536E-08	9.831E-09	5.388E-09	3.419E-09	2.391E-09	1.779E-09	1.382E-09	1.108E-09	9.096E-10	7.615E-10
SE	2.099E-08	1.218E-08	8.870E-09	5.862E-09	4.159E-09	3.225E-09	2.649E-09	2.251E-09	1.840E-09	1.541E-09	1.313E-09
SSE	5.363E-08	3.048E-08	1.897E-08	1.016E-08	6.462E-09	4.538E-09	3.393E-09	2.650E-09	2.136E-09	1.764E-09	1.484E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
	SEGMENT BOUNDARIES IN MILES									
S	8.914E-08	7.905E-08	5.275E-08	3.857E-08	3.796E-08	2.270E-08	8.562E-09	3.965E-09	2.334E-09	1.577E-09
SSW	3.090E-08	3.318E-08	2.658E-08	2.526E-08	2.122E-08	1.451E-08	5.884E-09	2.752E-09	1.635E-09	1.099E-09
SW	3.661E-08	5.590E-08	3.347E-08	1.942E-08	1.317E-08	7.395E-09	2.752E-09	1.239E-09	7.324E-10	4.876E-10
WSW	6.271E-08	8.808E-08	4.811E-08	2.647E-08	1.733E-08	8.954E-09	3.460E-09	1.572E-09	9.233E-10	6.195E-10
W	1.357E-07	1.224E-07	5.956E-08	3.270E-08	2.114E-08	9.864E-09	3.866E-09	1.878E-09	1.103E-09	7.381E-10
WNW	1.071E-07	1.422E-07	7.786E-08	4.519E-08	2.935E-08	1.344E-08	4.648E-09	2.034E-09	1.187E-09	7.913E-10
NW	1.238E-07	1.959E-07	1.092E-07	6.119E-08	3.962E-08	1.856E-08	6.764E-09	3.100E-09	1.857E-09	1.254E-09
NNW	1.190E-07	1.256E-07	1.150E-07	9.552E-08	6.652E-08	3.215E-08	1.123E-08	4.888E-09	2.873E-09	1.973E-09
N	1.467E-07	8.649E-08	5.652E-08	3.935E-08	2.918E-08	1.719E-08	1.126E-08	7.599E-09	4.765E-09	3.254E-09
NNE	8.339E-08	5.619E-08	3.719E-08	2.631E-08	2.160E-08	2.551E-08	1.176E-08	5.272E-09	3.112E-09	2.094E-09
NE	3.253E-08	2.655E-08	1.867E-08	1.347E-08	1.125E-08	1.431E-08	6.682E-09	2.980E-09	1.782E-09	1.211E-09
ENE	1.529E-08	1.821E-08	1.393E-08	9.956E-09	7.937E-09	8.023E-09	3.587E-09	1.575E-09	9.407E-10	6.337E-10
E	2.615E-08	2.095E-08	1.493E-08	1.086E-08	8.931E-09	9.111E-09	4.028E-09	1.733E-09	9.882E-10	6.582E-10
ESE	3.125E-08	3.182E-08	2.366E-08	1.687E-08	1.335E-08	1.240E-08	5.500E-09	2.420E-09	1.391E-09	9.134E-10
SE	6.616E-08	6.912E-08	4.948E-08	3.374E-08	2.427E-08	1.266E-08	5.773E-09	3.244E-09	2.208E-09	1.545E-09
SSE	7.910E-08	6.951E-08	4.793E-08	4.035E-08	5.467E-08	3.051E-08	1.048E-08	4.593E-09	2.666E-09	1.770E-09

ERP ELEVATED STACK RELEASE - JAN-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	DISTANCES IN MILES 0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	6.122E-09	5.138E-09	4.600E-09	3.311E-09	1.672E-09	1.042E-09	7.097E-10	5.119E-10	3.841E-10	3.142E-10	2.800E-10
SSW	1.699E-09	1.579E-09	1.634E-09	1.296E-09	7.014E-10	4.486E-10	3.097E-10	2.250E-10	2.098E-10	1.566E-10	1.242E-10
SW	1.398E-09	1.208E-09	1.132E-09	8.419E-10	7.527E-10	4.070E-10	2.516E-10	1.706E-10	1.232E-10	9.318E-11	7.295E-11
WSW	2.356E-09	1.931E-09	1.663E-09	2.030E-09	9.600E-10	5.155E-10	3.174E-10	2.147E-10	1.549E-10	1.170E-10	9.162E-11
W	1.404E-09	3.719E-09	2.992E-09	1.866E-09	9.129E-10	4.811E-10	2.929E-10	1.966E-10	1.412E-10	1.065E-10	8.354E-11
WNW	2.896E-09	2.295E-09	3.230E-09	2.124E-09	1.150E-09	5.827E-10	3.502E-10	2.371E-10	1.795E-10	1.415E-10	1.179E-10
NW	6.438E-09	4.879E-09	3.617E-09	3.253E-09	1.746E-09	8.748E-10	5.243E-10	3.552E-10	2.639E-10	2.109E-10	1.782E-10
NNW	9.864E-09	7.479E-09	5.552E-09	3.371E-09	2.153E-09	1.144E-09	7.046E-10	5.576E-10	4.137E-10	3.300E-10	2.787E-10
N	2.133E-08	1.594E-08	1.147E-08	6.721E-09	2.795E-09	1.591E-09	1.032E-09	7.243E-10	5.360E-10	4.121E-10	3.262E-10
NNE	8.907E-09	6.769E-09	5.048E-09	3.080E-09	1.339E-09	7.801E-10	5.126E-10	3.626E-10	2.694E-10	2.074E-10	1.642E-10
NE	1.938E-09	1.572E-09	1.330E-09	9.153E-10	4.458E-10	2.735E-10	1.849E-10	1.328E-10	9.948E-11	7.686E-11	6.085E-11
ENE	8.532E-10	8.107E-10	8.617E-10	6.942E-10	3.797E-10	2.437E-10	1.686E-10	1.226E-10	9.234E-11	7.152E-11	5.663E-11
E	2.345E-09	1.864E-09	1.520E-09	1.012E-09	4.793E-10	2.905E-10	1.952E-10	1.397E-10	1.044E-10	8.064E-11	6.384E-11
ESE	2.791E-09	2.387E-09	2.201E-09	1.619E-09	8.312E-10	5.211E-10	3.563E-10	2.574E-10	1.933E-10	1.496E-10	1.184E-10
SE	5.607E-09	4.917E-09	4.706E-09	3.553E-09	1.859E-09	1.174E-09	8.058E-10	5.833E-10	4.386E-10	3.394E-10	2.687E-10
SSE	6.934E-09	5.701E-09	4.934E-09	3.458E-09	1.710E-09	1.056E-09	7.165E-10	5.156E-10	3.865E-10	3.580E-10	3.403E-10

DIRECTION FROM SITE	DISTANCES IN MILES 5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	2.253E-10	1.435E-10	9.558E-11	5.438E-11	3.450E-11	2.528E-11	1.815E-11	1.365E-11	1.085E-11	8.660E-12	7.071E-12
SSW	1.003E-10	6.989E-11	4.762E-11	2.757E-11	1.813E-11	1.254E-11	8.991E-12	6.756E-12	5.271E-12	4.210E-12	3.437E-12
SW	5.902E-11	4.073E-11	2.771E-11	1.604E-11	1.020E-11	7.326E-12	5.228E-12	3.959E-12	3.078E-12	2.459E-12	2.007E-12
WSW	7.427E-11	5.023E-11	3.414E-11	2.194E-11	1.328E-11	8.901E-12	6.420E-12	4.821E-12	3.748E-12	2.994E-12	2.444E-12
W	6.769E-11	3.168E-11	3.705E-11	2.242E-11	1.413E-11	9.561E-12	6.851E-12	5.144E-12	4.000E-12	3.195E-12	2.608E-12
WNW	1.038E-10	6.519E-11	4.746E-11	2.909E-11	1.823E-11	1.157E-11	8.363E-12	6.280E-12	4.896E-12	3.911E-12	3.192E-12
NW	1.573E-10	1.014E-10	7.473E-11	4.433E-11	2.695E-11	1.809E-11	1.312E-11	9.853E-12	7.712E-12	6.160E-12	5.028E-12
NNW	2.454E-10	1.577E-10	1.160E-10	7.187E-11	4.661E-11	3.140E-11	2.091E-11	1.499E-11	1.164E-11	9.299E-12	7.591E-12
N	2.642E-10	1.270E-10	7.866E-11	4.302E-11	8.846E-11	5.277E-11	3.782E-11	2.840E-11	2.208E-11	1.764E-11	1.440E-11
NNE	1.329E-10	2.040E-10	1.260E-10	6.517E-11	3.975E-11	2.662E-11	1.903E-11	1.425E-11	1.105E-11	8.815E-12	7.185E-12
NE	4.914E-11	9.294E-11	5.807E-11	3.047E-11	1.869E-11	1.253E-11	8.827E-12	6.567E-12	5.124E-12	4.093E-12	3.341E-12
ENE	4.566E-11	5.189E-11	3.775E-11	2.305E-11	1.475E-11	9.812E-12	6.921E-12	4.941E-12	3.844E-12	3.073E-12	2.510E-12
E	5.158E-11	6.068E-11	4.472E-11	2.765E-11	1.784E-11	1.193E-11	8.461E-12	6.263E-12	4.807E-12	3.643E-12	2.967E-12
ESE	9.556E-11	1.034E-10	7.474E-11	4.547E-11	2.915E-11	1.946E-11	1.378E-11	1.019E-11	7.819E-12	6.189E-12	5.012E-12
SE	2.168E-10	1.031E-10	6.318E-11	3.364E-11	2.083E-11	1.448E-11	1.089E-11	1.701E-11	1.317E-11	1.052E-11	8.592E-12
SSE	2.871E-10	2.180E-10	1.342E-10	6.919E-11	4.215E-11	2.823E-11	2.019E-11	1.513E-11	1.174E-11	9.364E-12	7.634E-12

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES .5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	4.147E-09	1.756E-09	7.191E-10	3.940E-10	2.699E-10	1.404E-10	5.470E-11	2.489E-11	1.387E-11	8.720E-12
SSW	1.471E-09	7.211E-10	3.128E-10	1.947E-10	1.255E-10	6.674E-11	2.783E-11	1.261E-11	6.829E-12	4.238E-12
SW	1.020E-09	6.189E-10	2.606E-10	1.253E-10	7.379E-11	3.901E-11	1.604E-11	7.253E-12	3.986E-12	2.475E-12
WSW	1.885E-09	1.000E-09	3.291E-10	1.576E-10	9.273E-11	4.842E-11	2.080E-11	9.075E-12	4.869E-12	3.014E-12
W	2.653E-09	9.328E-10	3.046E-10	1.438E-10	8.447E-11	4.207E-11	2.199E-11	9.696E-12	5.196E-12	3.216E-12
WNW	2.531E-09	1.114E-09	3.670E-10	1.815E-10	1.157E-10	6.589E-11	2.834E-11	1.206E-11	6.348E-12	3.936E-12
NW	3.736E-09	1.694E-09	5.501E-10	2.698E-10	1.602E-10	1.020E-10	4.336E-11	1.846E-11	9.971E-12	6.201E-12
NNW	5.011E-09	1.976E-09	7.631E-10	4.229E-10	2.814E-10	1.587E-10	7.046E-11	3.126E-11	1.540E-11	9.360E-12
N	1.035E-08	3.132E-09	1.058E-09	5.426E-10	3.287E-10	1.360E-10	7.114E-11	5.631E-11	2.868E-11	1.775E-11
NNE	4.556E-09	1.478E-09	5.239E-10	2.724E-10	1.654E-10	1.535E-10	6.738E-11	2.708E-11	1.440E-11	8.875E-12
NE	1.200E-09	4.736E-10	1.877E-10	1.004E-10	6.126E-11	6.771E-11	3.137E-11	1.269E-11	6.663E-12	4.120E-12
ENE	7.759E-10	3.891E-10	1.702E-10	9.304E-11	5.698E-11	4.422E-11	2.263E-11	9.972E-12	5.089E-12	3.093E-12
E	1.371E-09	5.138E-10	1.984E-10	1.055E-10	6.427E-11	5.157E-11	2.708E-11	1.212E-11	6.336E-12	3.737E-12
ESE	1.984E-09	8.684E-10	3.607E-10	1.950E-10	1.192E-10	8.891E-11	4.472E-11	1.977E-11	1.031E-11	6.236E-12
SE	4.240E-09	1.931E-09	8.150E-10	4.421E-10	2.704E-10	1.106E-10	3.451E-11	1.474E-11	1.380E-11	1.059E-11
SSE	4.449E-09	1.808E-09	7.267E-10	4.125E-10	3.259E-10	1.961E-10	7.162E-11	2.873E-11	1.528E-11	9.427E-12

ERP ELEVATED STACK RELEASE - JAN-JUNE 1988
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER) NO DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 2.260 DAY DECAY UNDEPLETED	X/Q (SEC/CUB.METER) 8.000 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	SITE BOUNDARY	S	0.80	1287.	9.926E-08	9.912E-08	9.738E-08	4.330E-09
A	SITE BOUNDARY	SSW	0.82	1327.	3.354E-08	3.348E-08	3.303E-08	1.549E-09
A	SITE BOUNDARY	SW	0.98	1569.	4.876E-08	4.868E-08	4.846E-08	8.759E-10
A	SITE BOUNDARY	WSW	0.93	1489.	7.597E-08	7.587E-08	7.523E-08	2.007E-09
A	SITE BOUNDARY	W	0.91	1468.	1.629E-07	1.626E-07	1.606E-07	2.148E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.327E-07	1.325E-07	1.312E-07	2.409E-09
A	SITE BOUNDARY	NW	0.81	1307.	1.174E-07	1.173E-07	1.157E-07	3.182E-09
A	SITE BOUNDARY	NNW	0.69	1106.	1.191E-07	1.190E-07	1.169E-07	5.934E-09
A	SITE BOUNDARY	N	0.67	1086.	1.679E-07	1.678E-07	1.647E-07	1.257E-08
A	SITE BOUNDARY	NNE	0.60	965.	9.206E-08	9.201E-08	9.068E-08	5.962E-09
A	SITE BOUNDARY	NE	0.62	1005.	3.280E-08	3.275E-08	3.227E-08	1.424E-09
A	SITE BOUNDARY	ENE	0.59	945.	1.028E-08	1.027E-08	1.015E-08	8.163E-10
A	SITE BOUNDARY	E	0.53	845.	2.402E-08	2.400E-08	2.376E-08	1.817E-09
A	SITE BOUNDARY	ESE	0.54	865.	2.337E-08	2.336E-08	2.312E-08	2.357E-09
A	SITE BOUNDARY	SE	0.65	1046.	5.740E-08	5.736E-08	5.657E-08	4.713E-09
A	SITE BOUNDARY	SSE	0.81	1307.	8.676E-08	8.668E-08	8.518E-08	4.533E-09
A	NEAR. RESIDENCE	SW	1.30	2092.	6.819E-08	6.803E-08	6.750E-08	1.008E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	1.113E-07	1.111E-07	1.099E-07	1.292E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.663E-07	1.660E-07	1.638E-07	1.866E-09
A	NEAR. RESIDENCE	WNW	1.60	2576.	1.667E-07	1.662E-07	1.640E-07	9.854E-10
A	NEAR. RESIDENCE	NW	0.90	1448.	1.367E-07	1.365E-07	1.350E-07	3.745E-09
A	NEAR. RESIDENCE	NNW	1.90	3059.	1.280E-07	1.276E-07	1.255E-07	1.281E-09
A	NEAR. RESIDENCE	N	3.00	4829.	4.871E-08	4.854E-08	4.698E-08	7.240E-10
A	NEAR. RESIDENCE	NNE	2.40	3863.	4.022E-08	4.008E-08	3.897E-08	5.535E-10
A	NEAR. RESIDENCE	ENE	1.70	2737.	1.892E-08	1.887E-08	1.858E-08	3.115E-10
A	NEAR. RESIDENCE	E	1.80	2898.	1.989E-08	1.984E-08	1.941E-08	3.390E-10
A	NEAR. RESIDENCE	ESE	2.00	3220.	2.944E-08	2.937E-08	2.879E-08	5.208E-10
A	NEAR. RESIDENCE	SE	2.20	3542.	5.830E-08	5.813E-08	5.679E-08	1.002E-09
A	NEAREST COW	NNW	3.50	5634.	1.040E-07	1.035E-07	1.018E-07	4.135E-10
A	NEAREST GARDEN	SW	2.20	3541.	4.160E-08	4.143E-08	4.053E-08	3.311E-10
A	NEAREST GARDEN	WSW	1.30	2092.	1.113E-07	1.111E-07	1.099E-07	1.292E-09
A	NEAREST GARDEN	W	2.20	3541.	7.566E-08	7.535E-08	7.327E-08	3.888E-10
A	NEAREST GARDEN	WNW	1.60	2576.	1.667E-07	1.662E-07	1.640E-07	9.854E-10
A	NEAREST GARDEN	NW	2.80	4507.	9.048E-08	9.006E-08	8.800E-08	4.098E-10
A	NEAREST GARDEN	NNW	1.90	3059.	1.280E-07	1.276E-07	1.255E-07	1.281E-09
A	NEAREST GARDEN	NNE	2.70	4346.	3.590E-08	3.575E-08	3.470E-08	4.430E-10
A	NEAREST GARDEN	ENE	1.70	2737.	1.892E-08	1.887E-08	1.858E-08	3.115E-10
A	NEAREST GARDEN	E	2.00	3220.	1.851E-08	1.847E-08	1.805E-08	2.904E-10
A	NEAREST GARDEN	ESE	2.70	4346.	2.292E-08	2.284E-08	2.225E-08	3.110E-10
A	NEAREST GARDEN	SE	2.20	3541.	5.831E-08	5.815E-08	5.681E-08	1.002E-09

ATMOSPHERIC DIFFUSION MODEL

Onsite meteorological data from January 1 through June 30, 1988, were used to determine long-term (routine) diffusion estimates for evaluating normal atmospheric releases from Cooper Nuclear Station. Atmospheric dispersion parameters (X/Q values) were determined for the site boundary distances from each release point, the standard population distances, and special locations for nearest residence, cow, and garden using the methodology presented in U.S. NRC Regulatory Guide 1.111 (Rev.1) and the computer code XOQDOQ (NUREG/CR-2919. Two release modes were analyzed. Releases from the 99-meter free-standing stack were considered 100 percent elevated, while releases from the reactor building, turbine-generator building, radwaste building and augmented radwaste building vents were considered as a 100 percent ground level release (one combined source term was assumed to apply for these vents).

Winds were obtained from measurements at the 10-meter level (for ground-level releases) and the 100-meter level (for elevated releases), and the stability class was based on the vertical temperature gradient between 60 meters and 10 meters (for ground releases) and 100 meters and 10 meters (for elevated releases). In accordance with Regulatory Guide 1.111, calm periods were distributed directionally in proportion to the directional distribution within a stability class of the lowest wind speed group. For the calculations, calm periods were assigned a speed of one-half the threshold wind speed of the wind vane or anemometer, whichever is higher.

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 at the release point, was modified to account for various modes of effluent releases. In the case of an elevated release, plume rise due to momentum effects was incorporated into the calculation. For ground-level releases, building wake effects were considered.

The mathematical equation used in the Gaussian straight-line trajectory model is:

$$(X/Q)_i = 2.032 \sum_{jk} \frac{f_{ijk}}{x u_{jk} \Sigma_{zk}} \exp\left[\frac{-\frac{1}{2}h^2}{\sigma_{zk}^2}\right] \qquad \text{(Eq. 1)}$$

and

$$\Sigma_{zk} = (\sigma_{zk}^2 + 0.5\, D_z^2/\pi)^{\frac{1}{2}} \leq \sqrt{3}\, \sigma_{zk} \qquad \text{(Eq. 2)}$$

where i = index identifying direction sector;

j = index identifying wind speed class;

k = index identifying atmospheric stability class;

$\frac{X}{Q}$ = average effluent concentration normalized by source strength at the specific downwind distance;

f = joint frequency distribution of wind direction, wind speed class, and atmospheric stablity class;

x = distance from the release point to a receptor;

u = wind speed;

Σ_z = vertical plume spread with volumetric building wake correction for a release within the building wake cavity;

σ_z = vertical plume spread without volumetric building wake correction;

D_z = maximum adjacent building height either upwind or downwind of the release point (44.5 meters for for ground-level releases); and

h_e = effective plume height;

The term Σ_{zk} given in Equations 1 and 2 is used for ground-level release ($h = 0$) within the building wake cavity. For an elevated release, no volumetric building wake correction needs to be considered, i.e., $\Sigma_{zk} = \sigma_{zk}$. For all building wake determinations, the reactor building was considered to be the dominating structure in the modification of air flows within the building complex.

Since the model does not directly consider the effects of spatial and temporal variation in airflow due to terrain, appropriate adjustments were made to the calculated X/Q values, using the default values of Regulatory Guide 1.111, Rev. 0.

APPENDIX C

DOSE CALCULATIONS

CONTENTS

LIQUID EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0- to 50-mile population resulting from the release of radioactive material in liquid effluents from Cooper Nuclear Station were calculated using the LADTAP II computer program. The LADTAP II program implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from three principal exposure pathways in the aquatic environment-- potable water, aquatic foods, and recreational water use. Doses to both the maximum individual and 0 to 50 mile population are calculated as a function of age group and pathway for significant body organs, and are presented in Tables 1 and 2, respectively, for the first semiannual period.

Assumptions and data sources used for input to the LADTAP II code are described in a separate section of this appendix (see page C18).

Table 1. Doses to Individual at the Site Boundary, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 1988, Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter								
Drinking Water		1.90 E-02	1.40 E-02	1.14 E-02	1.53 E-01	5.15 E-03	1.42 E-03	1.16 E-02
Shoreline	5.37 E-05	4.57 E-05	4.57 E-05	4.57 E-05	4.57 E-05	4.57 E-05	4.57 E-05	4.57 E-05
Totals	5.37 E-05	1.90 E-02	1.40 E-02	1.14 E-02	1.53 E-01	5.20 E-03	1.47 E-03	1.16 E-02
2nd Quarter								
Eating Fish		2.33 E-02	3.99 E-02	2.91 E-02	1.31 E-05	1.32 E-02	4.37 E-03	2.19 E-03
Drinking Water		4.43 E-02	6.60 E-02	5.28 E-02	2.72 E-03	2.09 E-02	6.82 E-03	6.41 E-02
Shoreline	1.92 E-04	1.64 E-04	1.64 E-04	1.64 E-04	1.64 E-04	1.64 E-04	1.64 E-04	1.64 E-04
Totals	1.92 E-04	6.78 E-02	1.06 E-01	8.21 E-02	2.90 E-03	3.43 E-02	1.14 E-02	6.65 E-02
Totals for 1st and 2nd Quarters	2.46 E-04	8.68 E-02	1.21 E-01	9.35 E-02	1.56 E-01	3.95 E-02	1.29 E-02	7.81 E-02

Calculated doses are based on the following periods of exposures:
Fishing: from April through November
Drinking water and shoreline: from January through December.

Table 2. Doses to Population Within a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 1988, Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter								
Drinking Water		1.98 E-02	1.30 E-02	8.44 E-03	1.33 E-01	4.69 E-03	1.35 E-03	8.16 E-03
Shoreline	2.84 E-03	2.42 E-03	2.42 E-03	2.42 E-03	2.42 E-03	2.42 E-03	2.42 E-03	2.42 E-03
Totals	2.84 E-03	2.22 E-02	1.54 E-02	1.09 E-02	1.35 E-01	7.11 E-03	3.77 E-03	1.06 E-02
2nd Quarter								
Eating Fish		1.62 E-03	2.57 E-03	1.56 E-03	2.15 E-07	8.48 E-04	2.89 E-04	1.19 E-04
Drinking Water		2.52 E-02	3.32 E-02	2.08 E-02	1.28 E-03	1.04 E-02	3.53 E-03	2.43 E-02
Shoreline	1.02 E-02	8.67 E-03	8.67 E-03	8.67 E-03	8.67 E-03	8.67 E-03	8.67 E-03	8.67 E-03
Swimming		1.84 E-05	1.84 E-05	1.84 E-05	1.84 E-05	1.84 E-05	1.84 E-05	1.84 E-05
Boating		2.04 E-04	2.04 E-04	2.04 E-04	2.04 E-04	2.04 E-04	2.04 E-04	2.04 E-04
Totals	1.02 E-02	3.57 E-02	4.47 E-02	3.13 E-02	1.02 E-02	2.01 E-02	1.27 E-02	3.33 E-02
Totals for 1st and 2nd Quarters	1.30 E-02	5.79 E-02	6.01 E-02	4.22 E-02	1.45 E-01	2.72 E-02	1.65 E-02	4.39 E-02

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.

Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 miles downstream.

GASEOUS EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0- to 50-mile population resulting from the release of radioactive material in gaseous effluents from the Cooper Nuclear Station were calculated using the GASPAR computer code. Four sites were selected for individual dose calculations: the site boundary, the nearest residence, the nearest garden, and the nearest cow. GASPAR implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from four principal atmospheric exposure pathways: plume, ground, inhalation, and ingestion. Doses to the maximum individual and the population are calculated as a function of age group and pathway for significant body organs.

Tables 3 and 4 present maximum individual doses for the first and second quarters; population doses for the same period are given in Tables 5 and 6. Individual and population doses for the first semiannual period are contained in Tables 7 and 8, respectively. In addition, 0- to 50-mile distributions of gamma and beta air doses are presented in Tables 9, 10, and 11 for the first quarter, second quarter, and first semiannual period, respectively.

Because of differences in the amount of valid meteorlogical data recovered, dose contributions from the first and second quarters of 1988 cannot be summed to provide semiannual doses.

Assumptions and data used for input to the GASPAR code are described in a separate section of this appendix (see page C17).

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 1988

COOPER NUCLEAR STATION JANUARY-MARCH 1988
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.67 MILES N

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	3.29E-02	3.28E-02	3.30E-02	3.31E-02	3.33E-02	1.45E-01	3.31E-02	6.70E-02
TEEN	3.30E-02	3.28E-02	3.31E-02	3.33E-02	3.36E-02	1.8xE-01	3.31E-02	6.70E-02
CHILD	3.32E-02	3.28E-02	3.36E-02	3.36E-02	3.42E-02	3.21E-01	3.31E-02	6.70E-02
INFANT	3.35E-02	3.28E-02	3.43E-02	3.46E-02	3.49E-02	6.34E-01	3.31E-02	6.70E-02

COOPER NUCLEAR STATION JANUARY-MARCH 1988
SPECIAL LOCATION # 2 NEAR.RESIDENCE
AT 0.90 MILES NW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	1.71E-02	1.70E-02	1.71E-02	1.71E-02	1.72E-02	5.22E-02	1.72E-02	3.88E-02
TEEN	1.71E-02	1.70E-02	1.71E-02	1.72E-02	1.73E-02	8.55E-02	1.72E-02	3.88E-02
CHILD	1.72E-02	1.70E-02	1.73E-02	1.73E-02	1.75E-02	1.07E-01	1.72E-02	3.88E-02
INFANT	1.73E-02	1.70E-02	1.75E-02	1.76E-02	1.77E-02	2.05E-01	1.72E-02	3.88E-02

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 1988 (CONTINUED)

COOPER NUCLEAR STATION JANUARY-MARCH 1988
SPECIAL LOCATION # 3 NEAREST COW
AT 3.50 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	3.79E-03	3.79E-03	3.80E-03	3.80E-03	3.80E-03	6.12E-03	3.83E-03	7.83E-03
TEEN	3.80E-03	3.79E-03	3.80E-03	3.80E-03	3.81E-03	6.98E-03	3.83E-03	7.83E-03
CHILD	3.80E-03	3.79E-03	3.81E-03	3.81E-03	3.82E-03	9.55E-03	3.83E-03	7.83E-03
INFANT	3.81E-03	3.79E-03	3.82E-03	3.83E-03	3.83E-03	1.56E-02	3.83E-03	7.83E-03

COOPER NUCLEAR STATION JANUARY-MARCH 1988
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	6.25E-03	6.24E-03	6.25E-03	6.26E-03	6.28E-03	1.47E-02	6.31E-03	1.33E-02
TEEN	6.25E-03	6.24E-03	6.26E-03	6.27E-03	6.30E-03	1.79E-02	6.31E-03	1.33E-02
CHILD	6.27E-03	6.24E-03	6.30E-03	6.30E-03	6.34E-03	2.75E-02	6.31E-03	1.33E-02
INFANT	6.29E-03	6.24E-03	6.34E-03	6.36E-03	6.39E-03	5.01E-02	6.31E-03	1.33E-02

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 1988

COOPER NUCLEAR STATION APRIL-JUNE 1988
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.67 MILES N

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	1.69E-03	1.68E-03	1.70E-03	1.71E-03	1.73E-03	1.19E-02	1.70E-03	4.30E-03
TEEN	1.70E-03	1.68E-03	1.71E-03	1.72E-03	1.76E-03	1.58E-02	1.70E-03	4.30E-03
CHILD	1.72E-03	1.68E-03	1.75E-03	1.76E-03	1.81E-03	2.86E-02	1.70E-03	4.30E-03
INFANT	1.75E-03	1.68E-03	1.82E-03	1.85E-03	1.88E-03	5.83E-02	1.70E-03	4.30E-03

COOPER NUCLEAR STATION APRIL-JUNE 1988
SPECIAL LOCATION # 2 NEAR.RESIDENCE
AT 0.90 MILES NW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	5.90E-04	5.88E-04	5.91E-04	5.93E-04	5.98E-04	2.82E-03	5.94E-04	1.41E-03
TEEN	5.91E-04	5.88E-04	5.93E-04	5.97E-04	6.05E-04	3.69E-03	5.94E-04	1.41E-03
CHILD	5.96E-04	5.88E-04	6.04E-04	6.04E-04	6.16E-04	6.48E-03	5.94E-04	1.41E-03
INFANT	6.02E-04	5.87E-04	6.18E-04	6.24E-04	6.31E-04	1.30E-02	5.94E-04	1.41E-03

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 1988 (CONTINUED)

COOPER NUCLEAR STATION APRIL-JUNE 1988
SPECIAL LOCATION # 3 NEAREST COW
AT 3.50 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	1.77E-04	1.77E-04	1.78E-04	1.78E-04	1.78E-04	3.93E-04	1.79E-04	3.[illegible]E-04
TEEN	1.78E-04	1.77E-04	1.78E-04	1.78E-04	1.79E-04	4.76E-04	1.79E-04	[illegible].[illegible]E-04
CHILD	1.78E-04	1.77E-04	1.79E-04	1.79E-04	1.80E-04	7.33E-04	1.[illegible]E-04	[illegible].[illegible]E-04
INFANT	1.79E-04	1.77E-04	1.80E-04	1.81E-04	1.81E-04	1.32E-03	[illegible].[illegible]E-04	3.64E-04

COOPER NUCLEAR STATION APRIL-JUNE 1988
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	4.25E-04	4.25E-04	4.26E-04	4.27E-04	4.28E-04	1.14E-03	4.[illegible]E-04	9.[illegible]E-04
TEEN	4.26E-04	4.25E-04	4.27E-04	4.28E-04	4.30E-04	1.42E-03	4.29E-04	9.[illegible]E-04
CHILD	4.27E-04	4.25E-04	4.30E-04	4.30E-04	4.34E-04	2.29E-03	4.29E-04	9.[illegible]E-04
INFANT	4.29E-04	4.25E-04	4.34E-04	4.36E-04	4.38E-04	4.32E-03	4.29E-04	9.71E-04

TABLE 5. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-MARCH 1988

COOPER NUCLEAR STATION JANUARY-MARCH 1988
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.97E-03	7.97E-03	7.97E-03	7.97E-03	7.97E-03	7.97E-03	8.12E-03	2.00E-02
GROUND	2.01E-06	2.01E-06	2.01E-06	2.01E-06	2.01E-06	2.01E-06	2.01E-06	2.44E-06
INHAL	3.14E-06	7.98E-07	4.27E-06	5.54E-06	9.39E-06	1.82E-03	0.00E-01	0.00E-01
VEGET	2.89E-05	9.63E-06	4.14E-05	5.10E-05	8.60E-05	1.65E-02	0.00E-01	0.00E-01
COW MILK	4.15E-05	1.28E-05	6.12E-05	7.34E-05	1.23E-04	2.37E-02	0.00E-01	0.00E-01
MEAT	9.18E-07	3.59E-07	1.23E-06	1.61E-06	2.74E-06	5.25E-04	0.00E-01	0.00E-01
TOTAL	8.05E-03	8.00E-03	8.08E-03	8.11E-03	8.20E-03	5.06E-02	8.13E-03	2.00E-02

TABLE 6. DOSES TO POPULATION WITHIN 50 MILES, APRIL-JUNE 1988

COOPER NUCLEAR STATION APRIL-JUNE 1988
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.53E-04	3.53E-04	3.53E-04	3.53E-04	3.53E-04	3.53E-04	3.59E-04	8.78E-04
GROUND	2.78E-07	2.78E-07	2.78E-07	2.78E-07	2.78E-07	2.78E-07	2.78E-07	3.38E-07
INHAL	2.61E-07	2.27E-07	4.29E-07	6.21E-07	1.07E-06	2.40E-04	0.00E-01	0.00E-01
VEGET	1.73E-06	5.78E-07	2.49E-06	3.06E-06	5.16E-06	9.92E-04	0.00E-01	0.00E-01
COW MILK	2.38E-06	7.73E-07	3.53E-06	4.24E-06	7.14E-06	1.36E-03	0.00E-01	0.00E-01
MEAT	5.30E-08	2.07E-08	7.08E-08	9.32E-08	1.58E-07	3.03E-05	0.00E-01	0.00E-01
TOTAL	3.57E-04	3.54E-04	3.59E-04	3.61E-04	3.66E-04	2.88E-03	3.59E-04	8.78E-04

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 1988

COOPER NUCLEAR STATION JANUARY-JUNE 1988
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.67 MILES N

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	5.37E-02	5.35E-02	5.37E-02	5.39E-02	5.43E-02	2.43E-01	5.40E-02	1.16E-01
TEEN	5.38E-02	5.35E-02	5.40E-02	5.42E-02	5.49E-02	3.16E-01	5.40E-02	1.16E-01
CHILD	5.42E-02	5.35E-02	5.48E-02	5.48E-02	5.58E-02	5.47E-01	5.40E-02	1.16E-01
INFANT	5.47E-02	5.34E-02	5.60E-02	5.65E-02	5.70E-02	1.09E+00	5.40E-02	1.16E-01

COOPER NUCLEAR STATION JANUARY-JUNE 1988
SPECIAL LOCATION # 2 NEAR RESIDENCE
AT 0.90 MILES NW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	1.84E-02	1.83E-02	1.84E-02	1.84E-02	1.85E-02	6.38E-02	1.86E-02	4.05E-02
TEEN	1.84E-02	1.84E-02	1.85E-02	1.85E-02	1.87E-02	8.12E-02	1.86E-02	4.05E-02
CHILD	1.85E-02	1.83E-02	1.87E-02	1.87E-02	1.89E-02	1.37E-01	1.86E-02	4.05E-02
INFANT	1.86E-02	1.83E-02	1.89E-02	1.91E-02	1.92E-02	2.66E-01	1.86E-02	4.05E-02

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 1988 (CONTINUED)

COOPER NUCLEAR STATION JANUARY-JUNE 1988
SPECIAL LOCATION # 3 NEAREST COW
AT 3.50 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	4.43E-03	4.42E-03	4.43E-03	4.43E-03	4.44E-03	7.73E-03	4.47E-03	9.14E-03
TEEN	4.43E-03	4.42E-03	4.43E-03	4.44E-03	4.45E-03	8.98E-03	4.47E-03	9.14E-03
CHILD	4.44E-03	4.42E-03	4.45E-03	4.45E-03	4.46E-03	1.28E-02	4.47E-03	9.14E-03
INFANT	4.44E-03	4.42E-03	4.47E-03	4.47E-03	4.48E-03	2.17E-02	4.47E-03	9.14E-03

COOPER NUCLEAR STATION JANUARY-JUNE 1988
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

COOPER NUCLEAR STATION JANUARY-JUNE 1988
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	8.15E-03	8.14E-03	8.16E-03	8.17E-03	8.20E-03	2.03E-02	8.23E-03	1.73E-02
TEEN	8.16E-03	8.14E-03	8.17E-03	8.19E-03	8.23E-03	2.49E-02	8.23E-03	1.73E-02
CHILD	8.19E-03	8.14E-03	8.23E-03	8.23E-03	8.29E-03	3.95E-02	8.23E-03	1.73E-02
INFANT	8.22E-03	8.14E-03	8.30E-03	8.33E-03	8.36E-03	7.33E-02	8.23E-03	1.73E-02

TABLE 8. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-JUNE 1988

COOPER NUCLEAR STATION JANUARY-JUNE 1988
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	8.94E-03	8.94E-03	8.94E-03	8.94E-03	8.94E-03	8.94E-03	9.11E-03	2.24E-02
GROUND	2.53E-06	2.53E-06	2.53E-06	2.53E-06	2.53E-06	2.53E-06	2.53E-06	3.07E-06
INHAL	3.27E-06	9.94E-07	4.53E-06	5.93E-06	1.01E-05	1.89E-03	0.00E-01	0.00E-01
VEGET	3.22E-05	1.07E-05	4.62E-05	5.68E-05	9.59E-05	1.84E-02	0.00E-01	0.00E-01
COW MILK	4.63E-05	1.43E-05	6.83E-05	8.18E-05	1.38E-04	2.65E-02	0.00E-01	0.00E-01
MEAT	1.03E-06	4.02E-07	1.37E-06	1.81E-06	3.07E-06	5.87E-04	0.00E-01	0.00E-01
TOTAL	9.02E-03	8.97E-03	9.06E-03	9.09E-03	9.19E-03	5.63E-02	9.11E-03	2.24E-02

TABLE 9. GAMMA AND BETA AIR DOSES, JANUARY-MARCH 1988

COOPER NUCLEAR STATION JANUARY-MARCH 1988

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

DIR	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	8.263E-02	9.159E-03	3.697E-03	2.024E-03	1.270E-03	5.240E-04	2.355E-04	1.195E-04	5.822E-05	3.262E-05
NNE	5.488E-02	7.414E-03	3.142E-03	1.773E-03	1.152E-03	1.363E-03	3.504E-04	1.296E-04	6.374E-05	3.586E-05
NE	2.463E-02	3.375E-03	1.472E-03	8.324E-04	5.446E-04	6.504E-04	1.664E-04	5.706E-05	2.655E-05	1.421E-05
ENE	1.712E-02	2.956E-03	1.312E-03	6.928E-04	4.570E-04	3.648E-04	9.453E-05	3.278E-05	1.560E-05	8.439E-06
E	1.996E-02	3.224E-03	1.392E-03	8.595E-04	5.509E-04	5.804E-04	1.524E-04	5.680E-05	2.795E-05	1.609E-05
ESE	3.079E-02	6.469E-03	2.936E-03	1.662E-03	1.003E-03	7.999E-04	2.067E-04	7.709E-05	3.787E-05	2.151E-05
SE	5.243E-02	1.315E-02	5.905E-03	3.225E-03	2.033E-03	7.535E-04	2.501E-04	1.005E-04	5.222E-05	2.933E-05
SSE	5.470E-02	1.243E-02	5.454E-03	2.932E-03	4.006E-03	1.429E-03	3.555E-04	1.188E-04	5.299E-05	2.762E-05
S	5.630E-02	1.085E-02	4.757E-03	2.530E-03	2.233E-03	8.620E-04	2.109E-04	7.375E-05	3.374E-05	1.819E-05
SSW	3.337E-02	3.854E-03	1.600E-03	1.173E-03	7.580E-04	3.420E-04	8.033E-05	2.545E-05	1.081E-05	5.551E-06
SW	2.092E-02	4.809E-03	1.669E-03	8.144E-04	4.926E-04	2.355E-04	6.214E-05	2.374E-05	1.128E-05	6.177E-06
WSW	1.617E-02	7.448E-03	2.370E-03	1.102E-03	6.387E-04	2.842E-04	8.638E-05	2.942E-05	1.326E-05	7.065E-06
W	1.852E-02	1.101E-02	2.981E-03	1.361E-03	7.541E-04	2.524E-04	6.739E-05	2.250E-05	1.002E-05	5.265E-06
WNW	2.182E-02	1.187E-02	3.742E-03	1.800E-03	1.007E-03	3.412E-04	8.707E-05	2.794E-05	1.218E-05	6.287E-06
NW	4.764E-02	1.938E-02	6.120E-03	2.945E-03	1.677E-03	6.014E-04	1.772E-04	6.575E-05	3.321E-05	1.888E-05
NNW	7.568E-02	1.393E-02	7.309E-03	5.663E-03	3.253E-03	1.289E-03	3.428E-04	1.317E-04	6.757E-05	3.991E-05

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

DIR	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	6.324E-02	8.240E-03	3.176E-03	1.709E-03	1.082E-03	4.660E-04	2.139E-04	1.131E-04	6.114E-05	3.860E-05
NNE	4.263E-02	6.417E-03	2.552E-03	1.416E-03	9.275E-04	1.057E-03	2.886E-04	1.130E-04	6.021E-05	3.751E-05
NE	1.868E-02	2.809E-03	1.171E-03	6.645E-04	4.409E-04	5.129E-04	1.385E-04	5.262E-05	2.817E-05	1.768E-05
ENE	1.274E-02	2.508E-03	1.048E-03	5.387E-04	3.567E-04	2.887E-04	7.909E-05	3.020E-05	1.645E-05	1.031E-05
E	1.513E-02	2.834E-03	1.125E-03	6.674E-04	4.221E-04	4.425E-04	1.229E-04	4.819E-05	2.559E-05	1.627E-05
ESE	2.254E-02	5.561E-03	2.355E-03	1.272E-03	7.565E-04	6.081E-04	1.665E-04	6.523E-05	3.454E-05	2.154E-05
SE	3.934E-02	1.122E-02	4.604E-03	2.414E-03	1.510E-03	5.806E-04	2.022E-04	8.477E-05	4.705E-05	2.889E-05
SSE	4.276E-02	1.055E-02	4.251E-03	2.196E-03	2.959E-03	1.112E-03	2.908E-04	1.079E-04	5.615E-05	3.489E-05
S	4.262E-02	9.886E-03	3.686E-03	1.958E-03	1.716E-03	6.925E-04	1.814E-04	6.981E-05	3.628E-05	2.257E-05
SSW	2.467E-02	3.320E-03	1.320E-03	9.502E-04	6.250E-04	2.910E-04	7.672E-05	2.982E-05	1.592E-05	1.010E-05
SW	1.592E-02	3.924E-03	1.310E-03	6.478E-04	3.987E-04	1.962E-04	5.579E-05	2.327E-05	1.257E-05	7.916E-06
WSW	1.303E-02	5.774E-03	1.757E-03	8.337E-04	4.944E-04	2.270E-04	7.241E-05	2.742E-05	1.438E-05	9.017E-06
W	1.514E-02	8.708E-03	2.193E-03	1.021E-03	5.813E-04	2.037E-04	5.786E-05	2.179E-05	1.132E-05	7.013E-06
WNW	1.788E-02	9.015E-03	2.749E-03	1.348E-03	7.727E-04	2.745E-04	7.515E-05	2.811E-05	1.485E-05	9.317E-06
NW	3.553E-02	1.542E-02	4.669E-03	2.236E-03	1.296E-03	4.901E-04	1.532E-04	6.094E-05	3.340E-05	2.102E-05
NNW	5.855E-02	1.247E-02	5.841E-03	4.309E-03	2.498E-03	1.033E-03	2.962E-04	1.208E-04	6.686E-05	4.330E-05

TABLE 10. GAMMA AND BETA AIR DOSES, APRIL-JUNE 1988

COOPER NUCLEAR STATION APRIL-JUNE 1988

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

DIR	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	2.910E-03	6.040E-04	2.797E-04	1.548E-04	9.861E-05	4.025E-05	1.844E-05	9.470E-06	4.890E-06	2.852E-06
NNE	1.461E-03	2.722E-04	1.126E-04	6.309E-05	4.110E-05	4.374E-05	1.122E-05	4.198E-06	2.052E-06	1.145E-06
NE	1.802E-04	8.577E-05	4.468E-05	2.468E-05	1.654E-05	1.998E-05	5.631E-06	1.693E-06	7.689E-07	3.990E-07
ENE	3.571E-05	7.160E-05	3.579E-05	2.158E-05	1.403E-05	1.496E-05	3.934E-06	1.524E-06	8.209E-07	4.712E-07
E	1.917E-04	9.711E-05	4.324E-05	2.213E-05	1.360E-05	9.502E-06	2.408E-06	8.339E-07	3.810E-07	2.077E-07
ESE	2.024E-04	9.244E-05	4.735E-05	2.454E-05	1.572E-05	1.539E-05	4.173E-06	1.628E-06	8.239E-07	4.782E-07
SE	2.539E-04	1.566E-04	7.301E-05	3.901E-05	2.477E-05	9.523E-06	3.313E-06	1.228E-06	5.376E-07	2.706E-07
SSE	4.847E-04	1.958E-04	8.035E-05	4.266E-05	6.392E-05	2.337E-05	6.041E-06	2.204E-06	1.080E-06	6.059E-07
S	5.973E-04	2.540E-04	1.117E-04	6.080E-05	6.809E-05	3.363E-05	9.043E-06	3.592E-06	1.666E-06	9.101E-07
SSW	2.206E-04	1.430E-04	7.160E-05	6.465E-05	4.303E-05	2.608E-05	6.748E-06	2.423E-06	1.062E-06	5.434E-07
SW	1.836E-04	3.194E-04	9.986E-05	4.837E-05	2.759E-05	1.202E-05	3.027E-06	1.066E-06	4.866E-07	2.574E-07
WSW	3.305E-04	6.308E-04	1.658E-04	7.198E-05	4.198E-05	1.475E-05	3.465E-06	1.391E-06	6.793E-07	3.763E-07
W	6.278E-04	5.883E-04	1.786E-04	7.969E-05	4.606E-05	1.494E-05	4.485E-06	1.537E-06	6.680E-07	3.363E-07
WNW	4.583E-04	7.907E-04	2.279E-04	1.112E-04	6.142E-05	2.119E-05	5.832E-06	2.122E-06	1.010E-06	5.404E-07
NW	8.944E-04	1.110E-03	3.569E-04	1.520E-04	8.432E-05	2.954E-05	8.364E-06	3.048E-06	1.478E-06	8.209E-07
NNW	1.625E-03	6.920E-04	4.383E-04	2.630E-04	1.443E-04	4.903E-05	1.244E-05	4.636E-06	2.247E-06	1.243E-06

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

DIR	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	2.982E-03	5.392E-04	2.248E-04	1.156E-04	7.098E-05	2.897E-05	1.405E-05	7.450E-06	3.992E-06	2.465E-06
NNE	1.532E-03	2.344E-04	8.551E-05	4.555E-05	2.926E-05	3.256E-05	8.727E-06	3.405E-06	1.795E-06	1.111E-06
NE	1.678E-04	6.616E-05	3.253E-05	1.756E-05	1.185E-05	1.529E-05	4.028E-06	1.521E-06	8.214E-07	5.185E-07
ENE	3.612E-05	6.207E-05	2.703E-05	1.560E-05	9.983E-06	1.094E-05	3.029E-06	1.208E-06	6.841E-07	4.222E-07
E	1.887E-04	8.187E-05	3.251E-05	1.576E-05	9.754E-06	7.201E-06	1.895E-06	7.071E-07	3.658E-07	2.327E-07
ESE	2.056E-04	7.980E-05	3.715E-05	1.766E-05	1.118E-05	1.132E-05	3.222E-06	1.297E-06	6.937E-07	4.345E-07
SE	2.482E-04	1.300E-04	5.384E-05	2.776E-05	1.772E-05	7.099E-06	2.584E-06	1.055E-06	5.903E-07	3.717E-07
SSE	4.885E-04	1.703E-04	6.066E-05	3.049E-05	4.565E-05	1.7[illegible]E-05	4.692E-06	1.786E-06	9.35[illegible]-07	5.800E-07
S	5.840E-04	2.143E-04	8.477E-05	4.379E-05	4.844E-05	2.522E-05	7.076E-06	3.030E-06	1.591E-06	1.018E-06
SSW	2.092E-04	1.138E-04	5.212E-05	4.585E-05	3.104E-05	1.995E-05	5.395E-06	2.201E-06	1.156E-06	7.259E-07
SW	1.803E-04	2.565E-04	7.152E-05	3.450E-05	2.005E-05	9.135E-06	2.389E-06	9.118E-07	5.728E-07	2.902E-07
WSW	3.225E-04	5.660E-04	1.276E-04	5.185E-05	2.990E-05	1.084E-05	2.986E-06	1.112E-06	5.743E-07	3.465E-07
W	6.156E-04	4.967E-04	1.333E-04	5.676E-05	3.291E-05	1.123E-05	3.554E-06	1.389E-06	7.228E-07	4.489E-07
WNW	4.553E-04	6.682E-04	1.682E-04	7.912E-05	4.406E-05	1.590E-05	4.553E-06	1.748E-06	9.135E-07	5.561E-07
NW	8.769E-04	9.089E-04	2.694E-04	1.082E-04	6.050E-05	2.214E-05	6.522E-06	2.495E-06	1.319E-06	8.170E-07
NNW	1.638E-03	5.972E-04	3.401E-04	1.888E-04	1.027E-04	3.644E-05	9.679E-06	3.764E-06	1.982E-06	1.235E-06

TABLE 11. GAMMA AND BETA AIR DOSES, JANUARY-JUNE 1988

COOPER NUCLEAR STATION JANUARY-JUNE 1988

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

DIR	0.0-1.	1. 2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	1.193E-01	1.547E-02	6.146E-03	3.353E-03	2.072E-03	8.451E-04	3.673E-04	1.866E-04	9.397E-05	5.394E-05
NNE	6.119E-02	8.700E-03	3.39[illegible]E-03	1.868E-03	1.183E-03	1.306E-03	3.388E-04	1.247E-04	6.098E-05	3.443E-05
NE	2.499E-02	3.626E-03	1.446E-03	8.078E-04	5.422E-04	5.981E-04	1.555E-04	5.276E-05	2.440E-05	1.300E-05
ENE	1.287E-02	2.714E-03	1.212E-03	6.842E-04	4.269E-04	3.766E-04	9.903E-05	3.623E-05	1.831E-05	1.011E-05
E	1.893E-02	3.414E-03	1.414E-03	8.001E-04	4.866E-04	4.371E-04	1.139E-04	4.172E-05	2.014E-05	1.139E-05
ESE	2.382E-02	5.043E-03	2.125E-03	1.275E-03	7.999E-04	6.331E-04	1.647E-04	6.209E-05	3.119E-05	1.759E-05
SE	4.354E-02	1.014E-02	4.316E-03	2.291E-03	1.419E-03	5.552E-04	1.804E-04	7.055E-05	3.431E-05	1.848E-05
SSE	5.922E-02	1.082E-02	4.417E-03	2.301E-03	3.048E-03	1.086E-03	2.752E-04	9.421E-05	4.311E-05	2.287E-05
S	6.898E-02	1.105E-02	4.349E-03	2.327E-03	2.139E-03	9.169E-04	2.384E-04	8.882E-05	4.132E-05	2.245E-05
SSW	3.649E-02	5.113E-03	2.031E-03	1.517E-03	9.934E-04	5.250E-04	1.353E-04	4.582E-05	1.997E-05	1.042E-05
SW	2.492E-02	3.104E-03	2.346E-03	1.095E-03	6.386E-04	2.894E-04	7.459E-05	2.727E-05	1.292E-05	6.963E-06
WSW	2.273E-02	1.354E-02	3.350E-03	1.528E-03	8.499E-04	3.373E-04	9.612E-05	3.359E-05	1.568E-05	8.524E-06
W	2.548E-02	1.264E-02	3.822E-03	1.712E-03	1.006E-03	3.298E-04	9.467E-05	3.224E-05	1.410E-05	7.300E-06
WNW	2.869E-02	1.635E-02	4.797E-03	2.354E-03	1.335E-03	4.527E-04	1.216E-04	4.197E-05	1.918E-05	1.020E-05
NW	5.355E-02	2.529E-02	8.022E-03	3.556E-03	1.997E-03	7.135E-04	2.065E-04	7.576E-05	3.762E-05	2.117E-05
NNW	9.226E-02	1.712E-02	9.723E-03	6.591E-03	3.667E-03	1.361E-03	3.611E-04	1.340E-04	6.741E-05	3.878E-05

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

DIR	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	9.611E-02	1.362E-02	5.139E-03	2.700E-03	1.645E-03	6.799E-04	3.115E-04	1.635E-04	8.824E-05	5.524E-05
NNE	4.826E-02	7.423E-03	2.720E-03	1.459E-03	9.274E-04	1.006E-03	2.766E-04	1.079E-04	5.741E-05	3.591E-05
NE	1.879E-02	2.967E-03	1.136E-03	6.373E-04	4.304E-04	4.729E-04	1.296E-04	4.937E-05	2.666E-05	1.685E-05
ENE	9.602E-03	2.311E-03	9.571E-04	5.209E-04	3.248E-04	2.904E-04	8.038E-05	3.132E-05	1.738E-05	1.080E-05
E	1.458E-02	2.870E-03	1.112E-03	6.081E-04	3.686E-04	3.354E-04	9.212E-05	3.585E-05	1.898E-05	1.209E-05
ESE	1.801E-02	4.329E-03	1.677E-03	9.754E-04	6.005E-04	4.788E-04	1.321E-04	5.218E-05	2.802E-05	1.736E-05
SE	3.274E-02	8.673E-03	3.387E-03	1.726E-03	1.067E-03	4.322E-04	1.485E-04	6.164E-05	3.369E-05	2.079E-05
SSE	4.566E-02	9.503E-03	3.545E-03	1.769E-03	2.272E-03	8.549E-04	2.292E-04	8.645E-05	4.539E-05	2.826E-05
S	5.298E-02	9.297E-03	3.439E-03	1.828E-03	1.648E-03	7.383E-04	2.052E-04	8.396E-05	4.448E-05	2.816E-05
SSW	2.746E-02	4.225E-03	1.623E-03	1.182E-03	7.877E-04	4.287E-04	1.176E-04	4.746E-05	2.530E-05	1.608E-05
SW	1.908E-02	5.747E-03	1.790E-03	8.432E-04	5.626E-04	2.357E-04	6.510E-05	2.628E-05	1.414E-05	8.832E-06
WSW	1.775E-02	1.189E-02	2.511E-03	1.130E-03	6.393E-04	2.653E-04	7.953E-05	3.011E-05	1.575E-05	9.781E-06
W	2.088E-02	1.003E-02	2.810E-03	1.266E-03	7.513E-04	2.598E-04	7.884E-05	3.055E-05	1.591E-05	9.922E-06
WNW	2.306E-02	1.306E-02	3.530E-03	1.735E-03	1.002E-03	3.578E-04	1.014E-04	3.877E-05	2.043E-05	1.273E-05
NW	4.227E-02	2.044E-02	6.125E-03	2.644E-03	1.508E-03	5.656E-04	1.728E-04	6.791E-05	3.685E-05	2.309E-05
NNW	7.210E-02	1.454E-02	7.691E-03	4.956E-03	2.768E-03	1.075E-03	3.062E-04	1.217E-04	6.661E-05	4.255E-05

DOSE CALCULATION MODELS

To evaluate the radiological consequences of the routine release of liquid and gaseous effluents from the Cooper Nuclear Station, two computer codes were used: LADTAP II for liquid doses and GASPAR for gaseous doses. Both of these computer codes implement the dose calculational methodologies of U.S. NRC Regulatory Guide 1.109, Revision 1.

Source terms for each quarter are combined with station-specific demographic data and either hydrological dilution factors, for liquid dose calculations, or atmospheric diffusion estimates, for gaseous dose calculations.

For liquid dose calculations, the hydrological dilution factors used for input to LADTAP II, as well as other input parameters, are listed in Table 12. Other inputs not specifically listed in this table are taken from Regulatory Guide 1.109, Revision 1. Semiannual doses are obtained by summing the contributions from the appropriate quarters.

For gaseous dose calculations, atmospheric diffusion estimates are obtained from the reduction and processing of onsite meteorological data, as described in Appendix B. Source terms for the semiannual period are obtained by summing source terms for the appropriate quarters. Additional input to GASPAR includes the following station-supplied data:

- 0- to 50- mile population distribution
- 0- to 50- mile meat, milk, and vegetable distributions
- Absolute humidity at Cooper Nuclear Station (14.61 g/m)
- The fraction of the year that the vegetables are grown (0.5)
- The fraction of the daily feed intake derived from pasture for milk and meat animals (0.5).

Other values used for input to GASPAR are default values from Regulatory Guide 1.109, Rev. 1.

Table 12. Values of Parameters Used to Make Dose Estimates Resulting from Liquid Discharges at Cooper Nuclear Station January-June 1988

Parameter	Values Assigned	
	Individual	Population
Cooling flow rate (cfs) *	648.83; 448.38	648.83; 448.38
Dilution factor	1	48.31; 89.38
Holding time:		
Fish	24 hr ***	168 hr ***
Drinking water	12 hr ***	22.4 hr **
Shoreline exposure	0 hr ***	22.4 hr **
Swimmimg	0 hr ***	22.4 hr **
Boating	0 hr ***	22.4 hr **

* First and Second quarter station data for 1988, respectively.
** Based on an average Missouri River water flow of 5.5 ft/sec, 84 miles down the river.
*** Values from Regulatory Guide 1.109, Revision 1.

ISOPLETH FIGURES

The average atmospheric diffusion estimate isopleths presented in this section were generated from output of the computer code XOQDOQ. These figures present relative concentrations for undepleted and undecayed atmospheric releases. Isopleth fields are presented for both a 0- to 5-mile area and a 0- to 50-mile area centered on the Cooper Nuclear Station. The periods covered by the isopleths are January-March, April-June, and January-June 1988. Separate figures are given for the ground-level (vent) and elevated (stack) release points. The isopleths of gamma radiation air dose were generated from the output of the GASPAR computer code. The isopleths are for a combined ground-level (vent) and elevated (stack) release, and cover the same area and time periods given for the atmospheric diffusion estimates. These figures are presented for purposes of displaying general data trends only. Due to the inaccuracies introduced by rounding and smoothing of the gridded data fields by the plotting routines, these plots should not be used to extract absolute values of the parameters for given distances and directions. Exact values of these parameters can be obtained from the tables of atmospheric diffusion estimates provided in Appendix B and doses provided in Appendix C.

List of Figures

List of Figures (Continued)

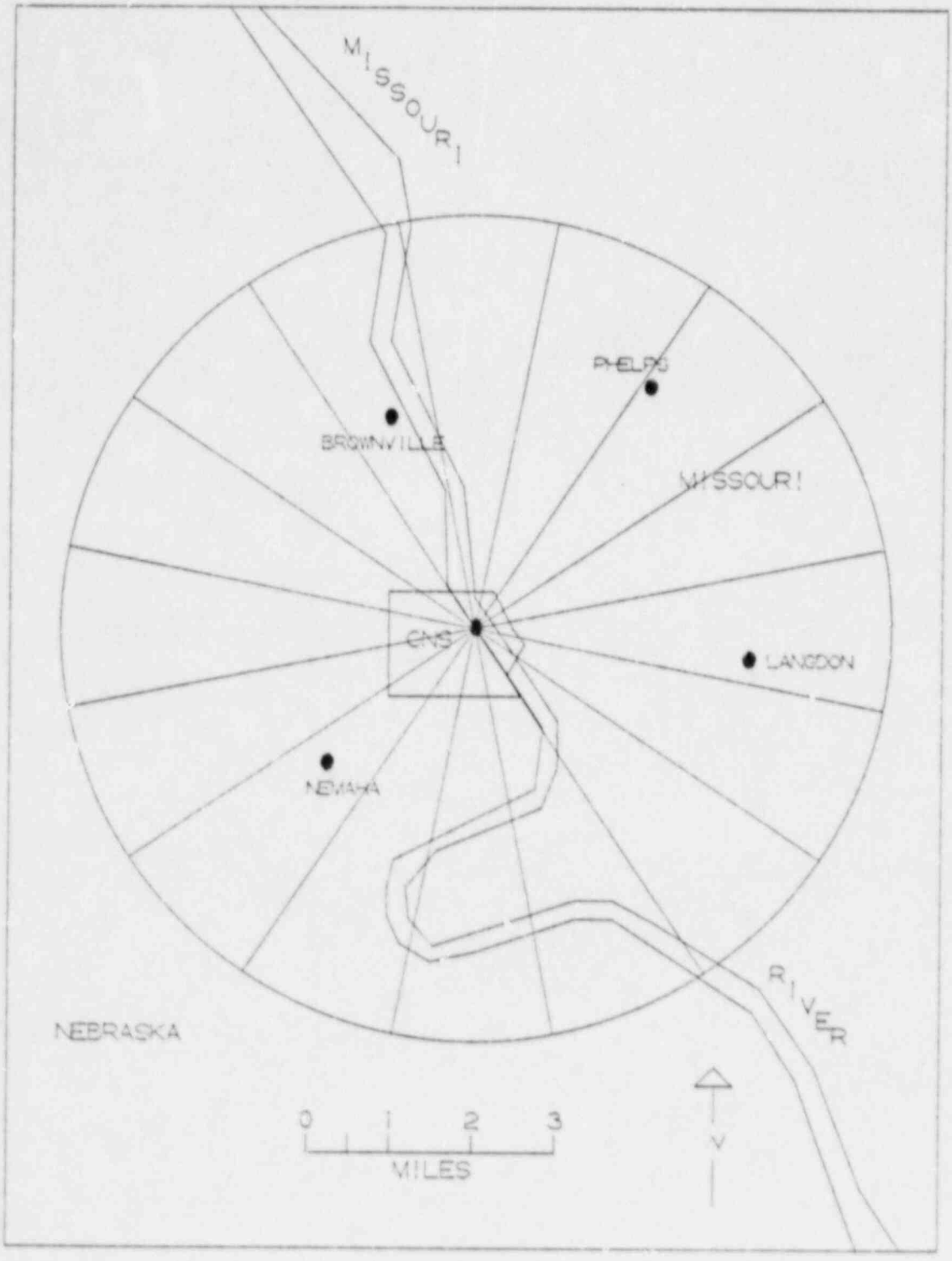

FIGURE 1.
COOPER NUCLEAR STATION AND SURROUNDING
AREA FROM 0-5 MILES

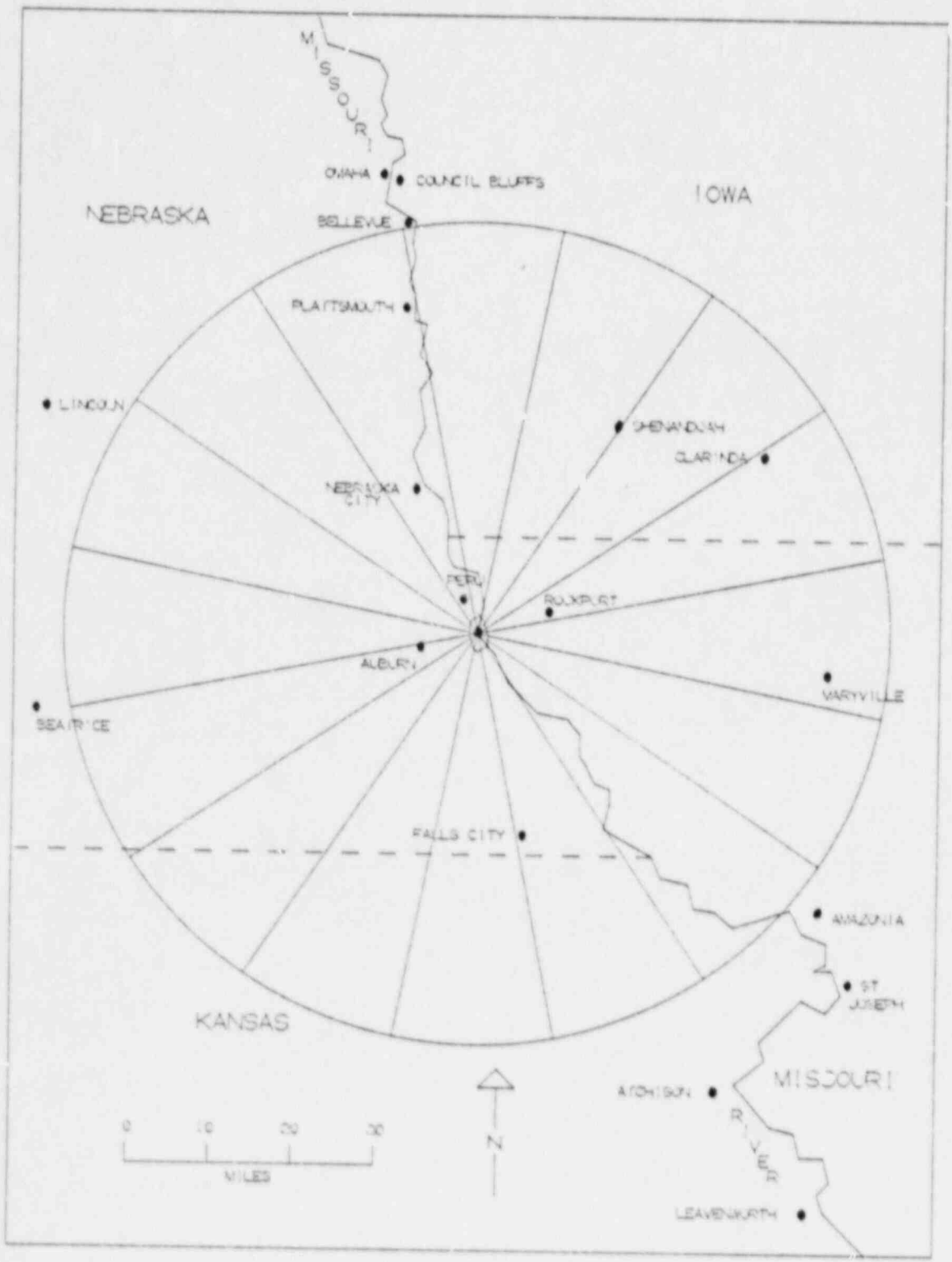

FIGURE 2.
COOPER NUCLEAR STATION AND SURROUNDING
AREA FROM 0-50 MILES

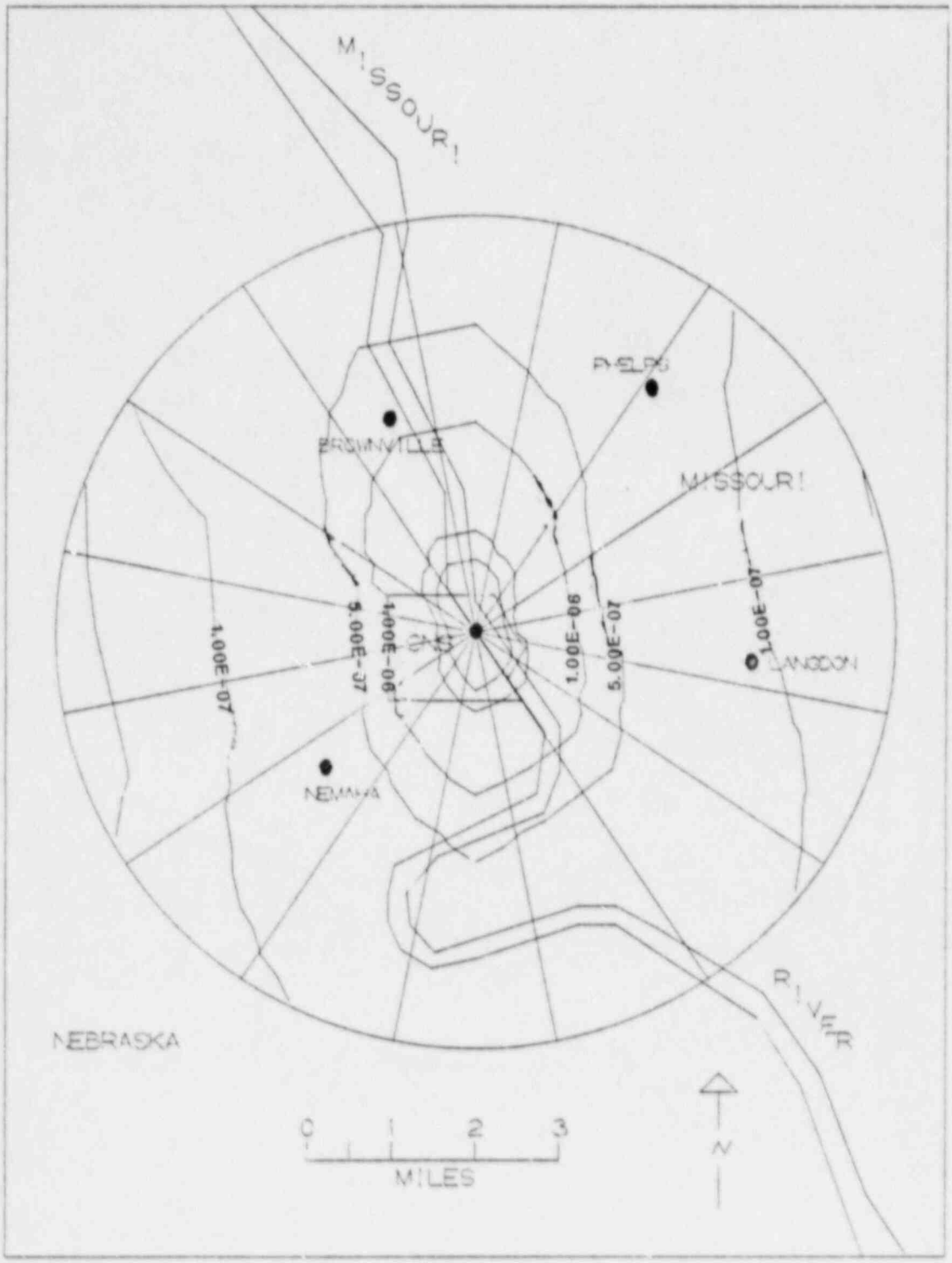

FIGURE F-3
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-5 MILES, GROUND LEVEL RELEASES (SEC/M CUBED)
JANUARY-MARCH 1983

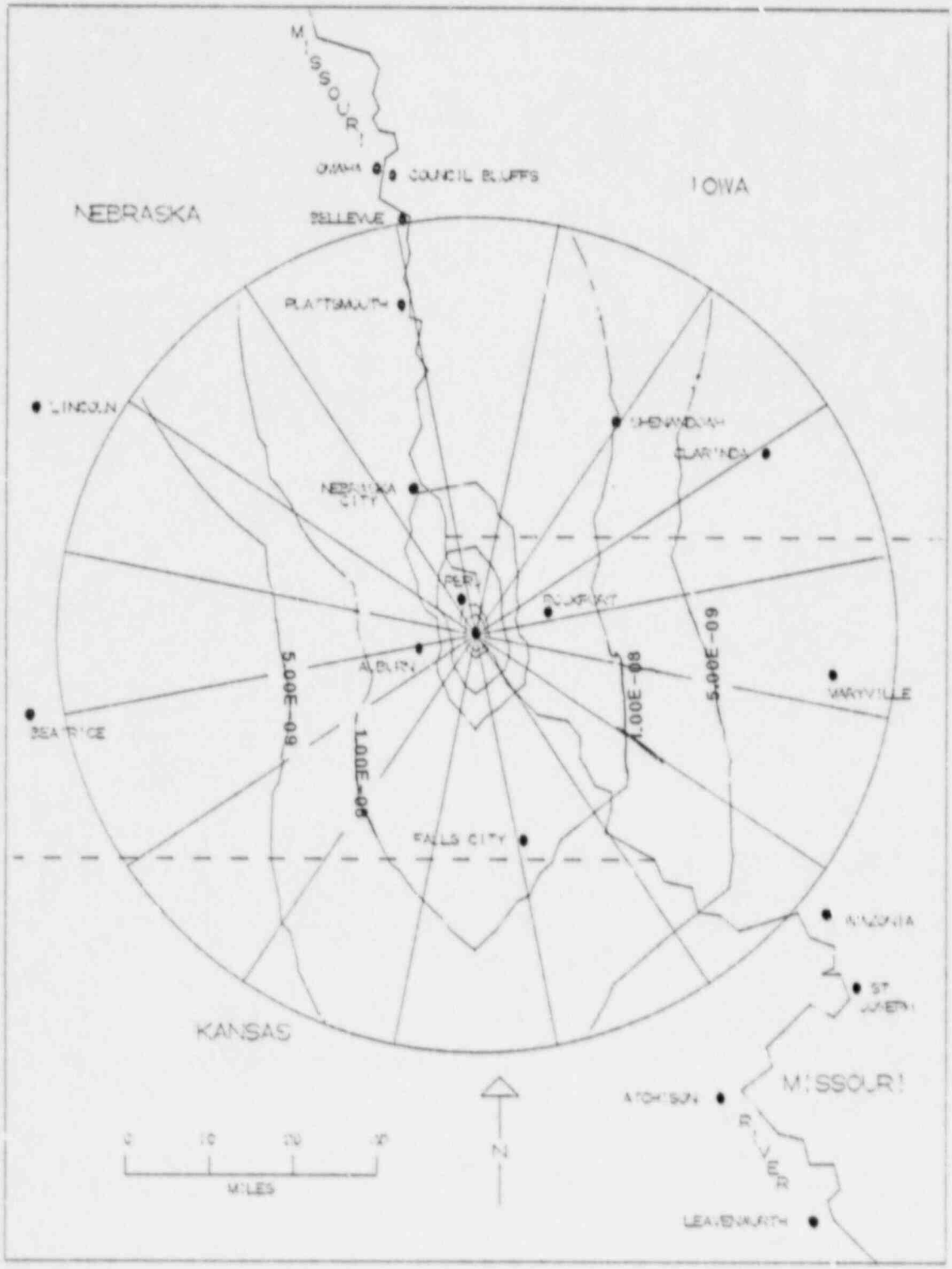

FIGURE F-4
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-50 MILES: GROUND LEVEL RELEASES (SEC/M CUBED)
JANUARY-MARCH 1980

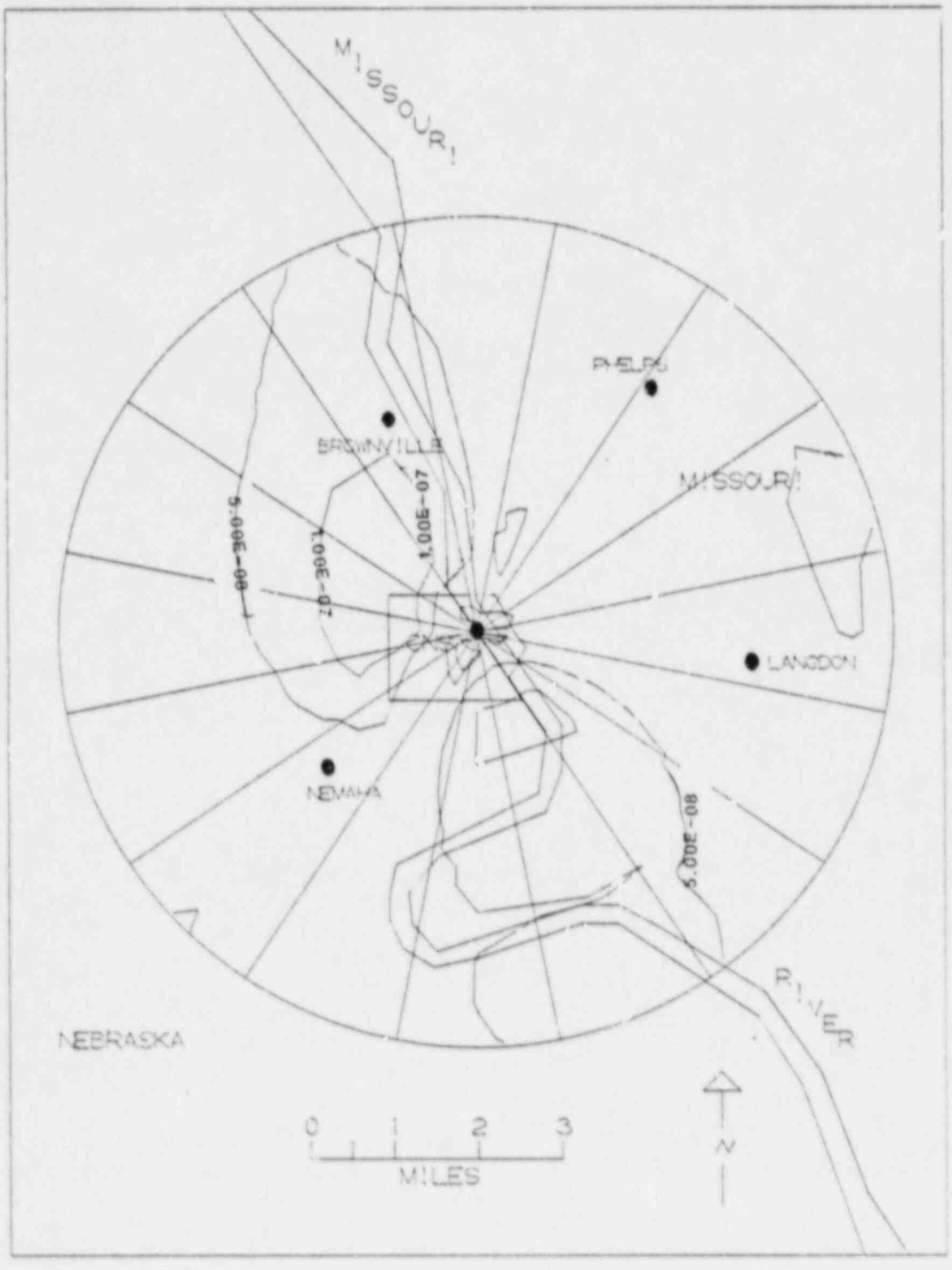

FIGURE F-5
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-5 MILES, ELEVATED RELEASES (SEC/M³ CUBED)
JANUARY-MARCH 1989

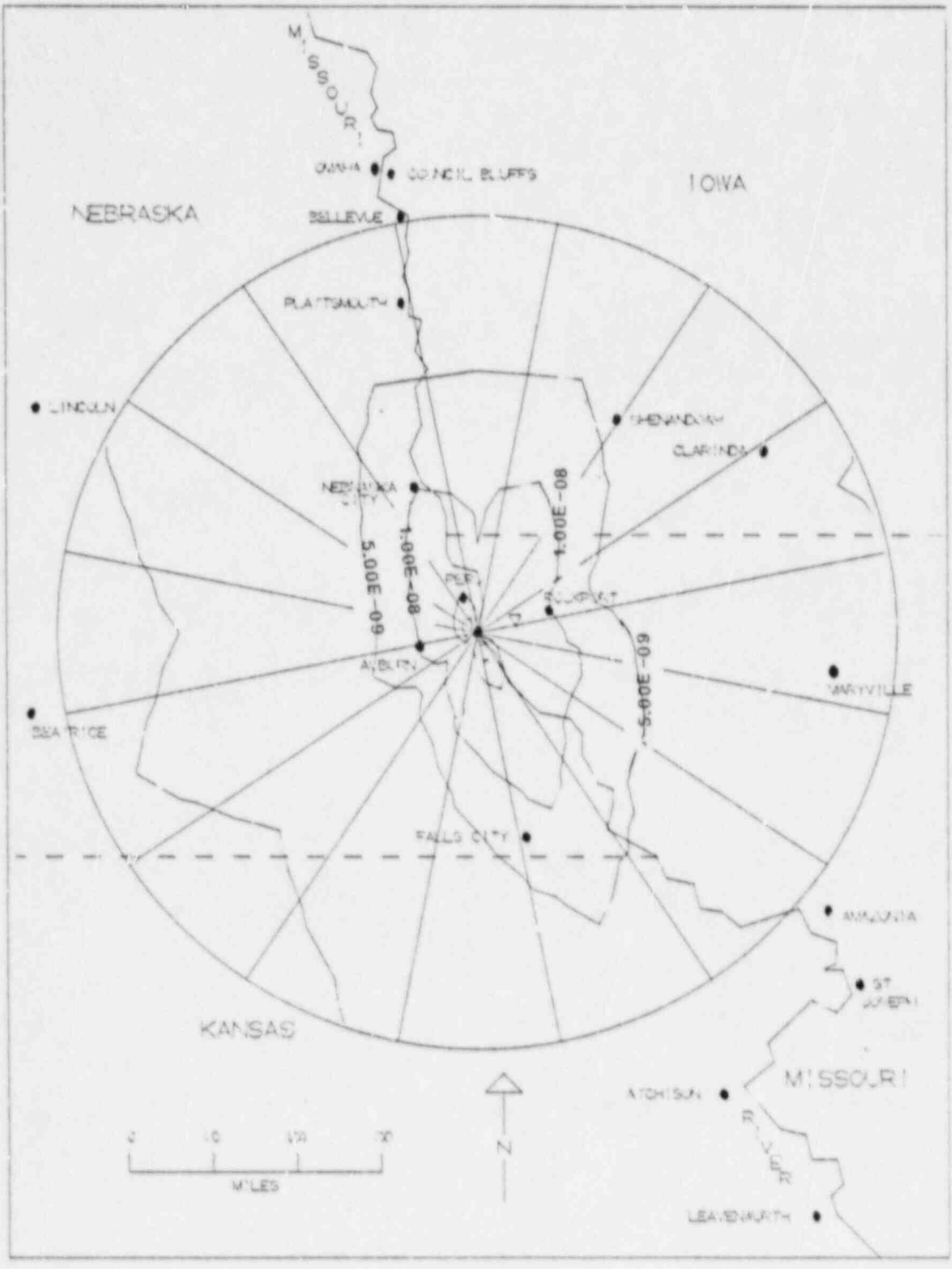

FIGURE F-6
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-50 MILES, ELEVATED RELEASES (SEC/M CUBED)
JANUARY-MARCH 1986

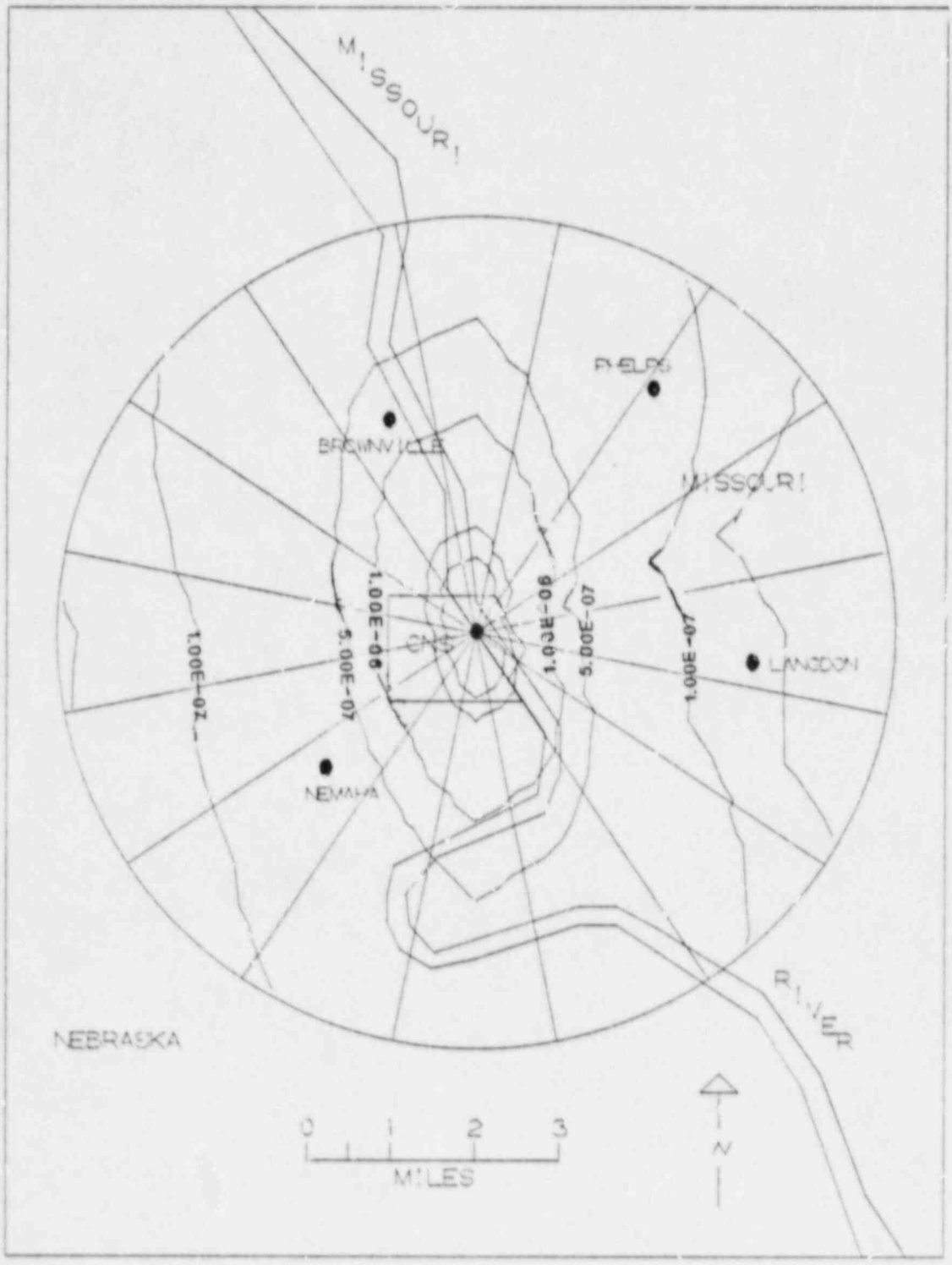

FIGURE F-7
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-5 MILES GROUND LEVEL RELEASES (SEC/M CUBED)
APRIL-JUNE 1989

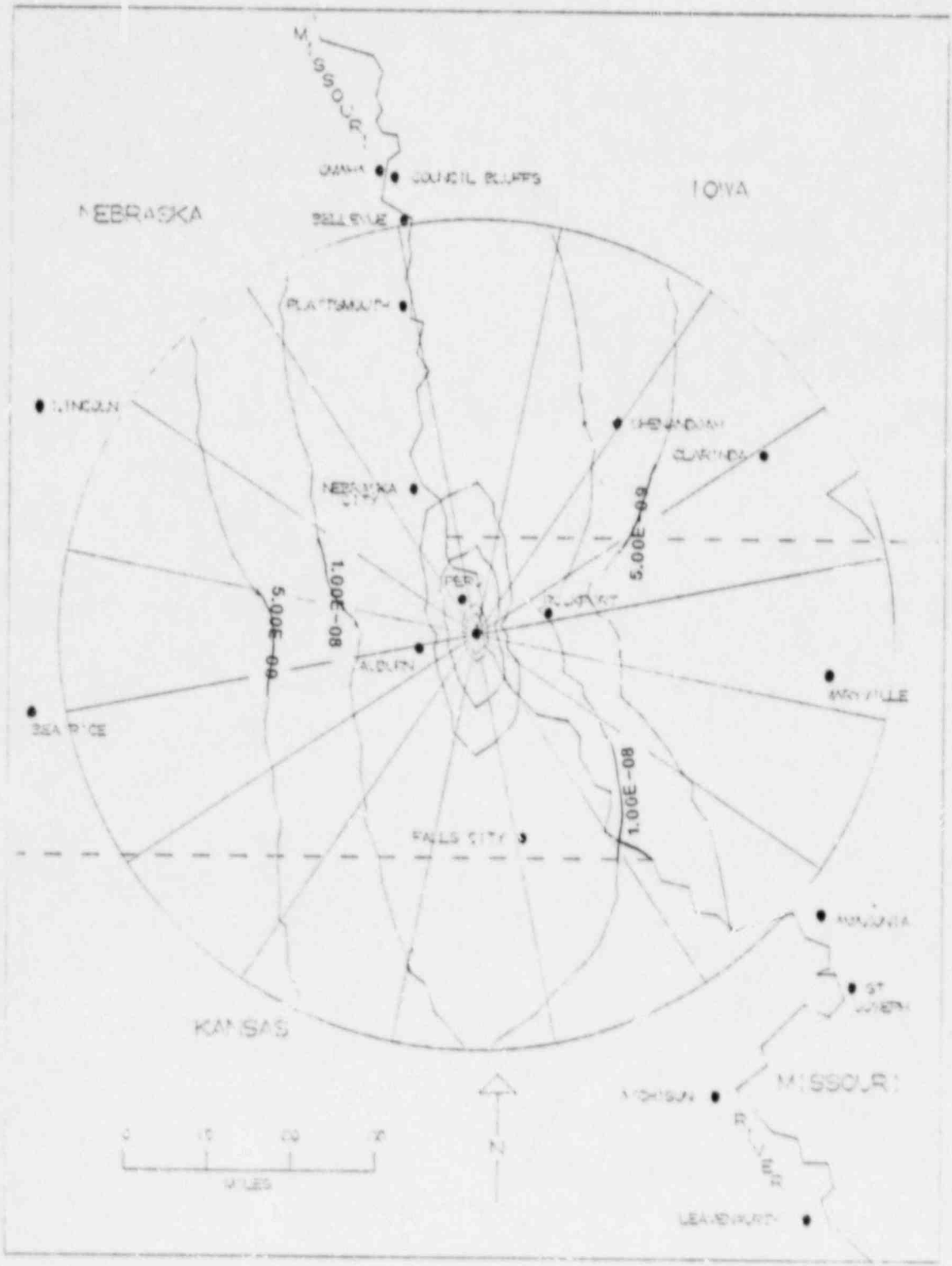

FIGURE F-8
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-50 MILES, GROUND LEVEL RELEASES (SEC/M CUBED)
APRIL-JUNE 1988

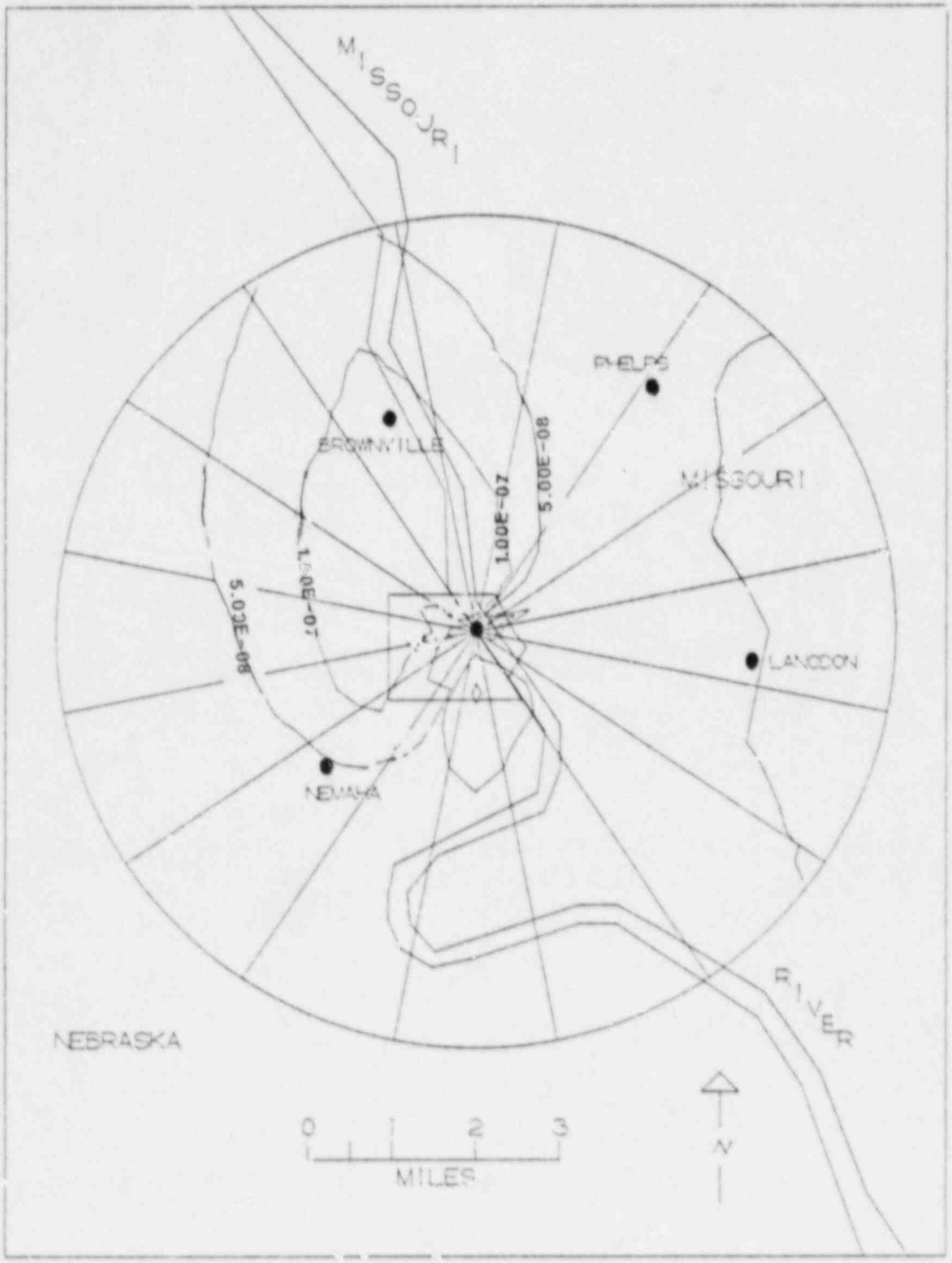

FIGURE F-9
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-5 MILES, ELEVATED RELEASES (SEC/M CUBED)
APRIL-JUNE 1988

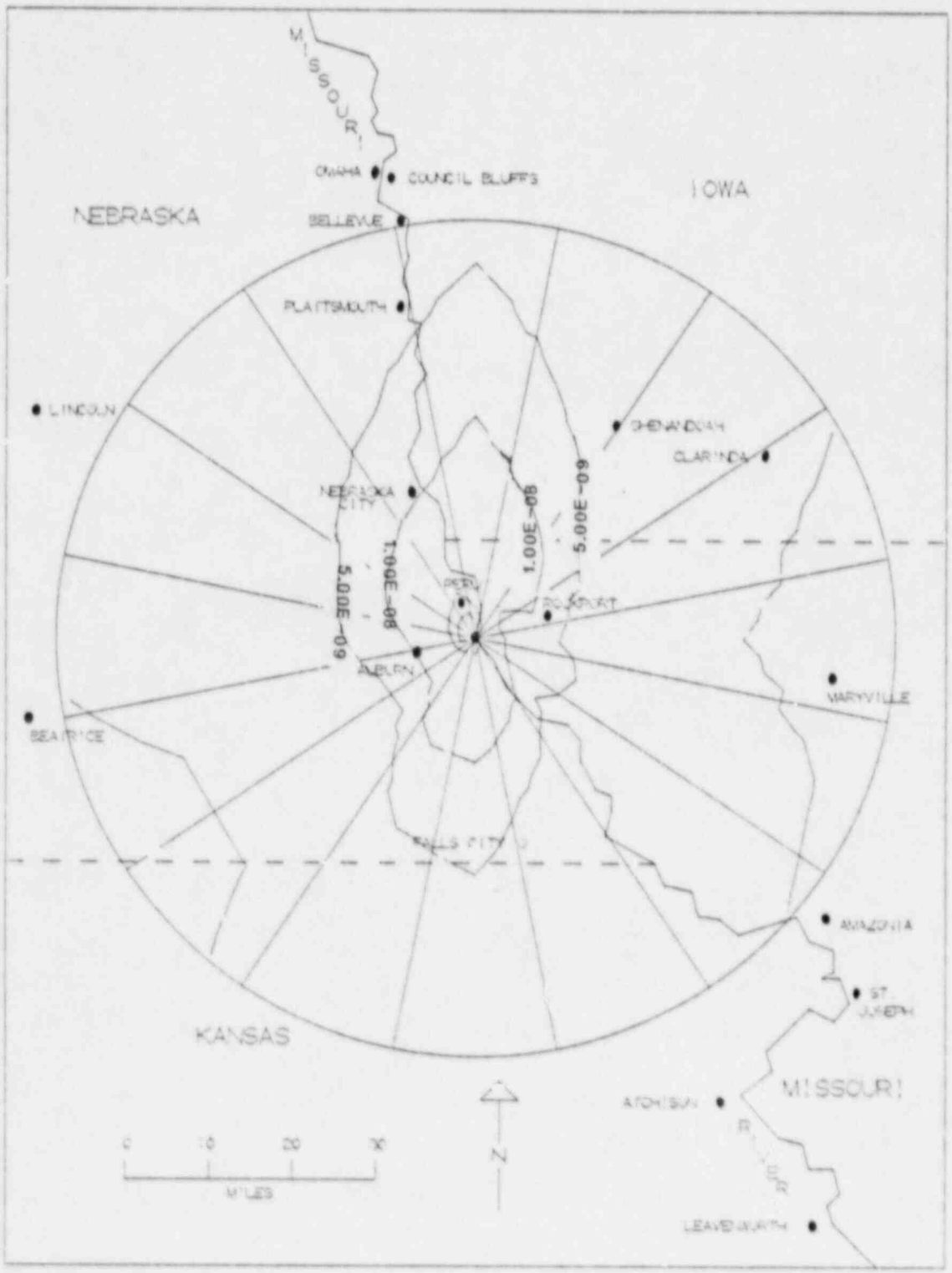

FIGURE F-10
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-50 MILES ELEVATED RELEASES (SEC/M CUBED)
APRIL-JUNE 1968

FIGURE F-1
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-5 MILES, GROUND LEVEL RELEASES (SEC/M CURIED)
JANUARY-JUNE 1983

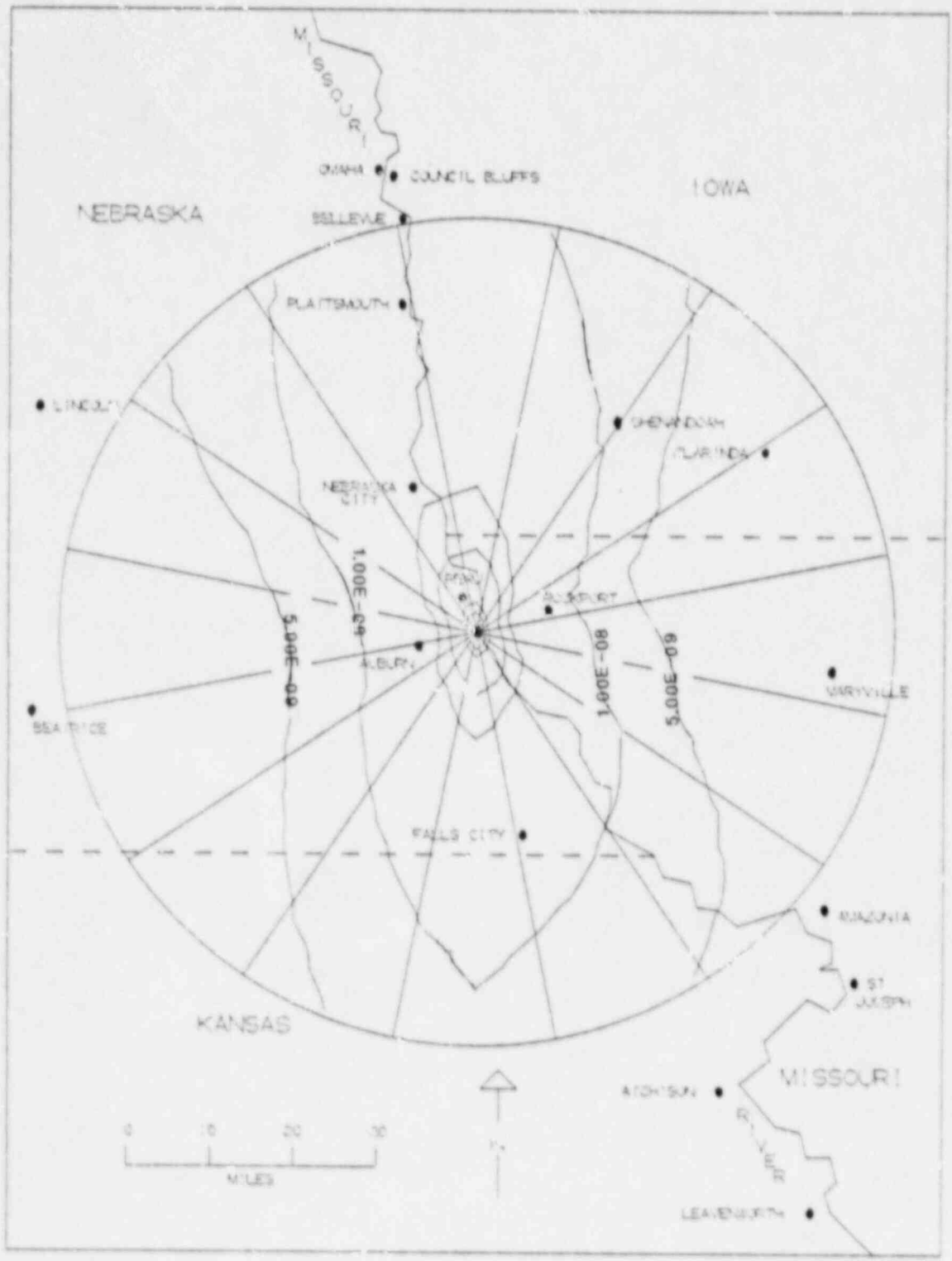

FIGURE F-12
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-50 MILES GROUND LEVEL RELEASES (SEC/M CUBED)
JANUARY-JUNE 1968

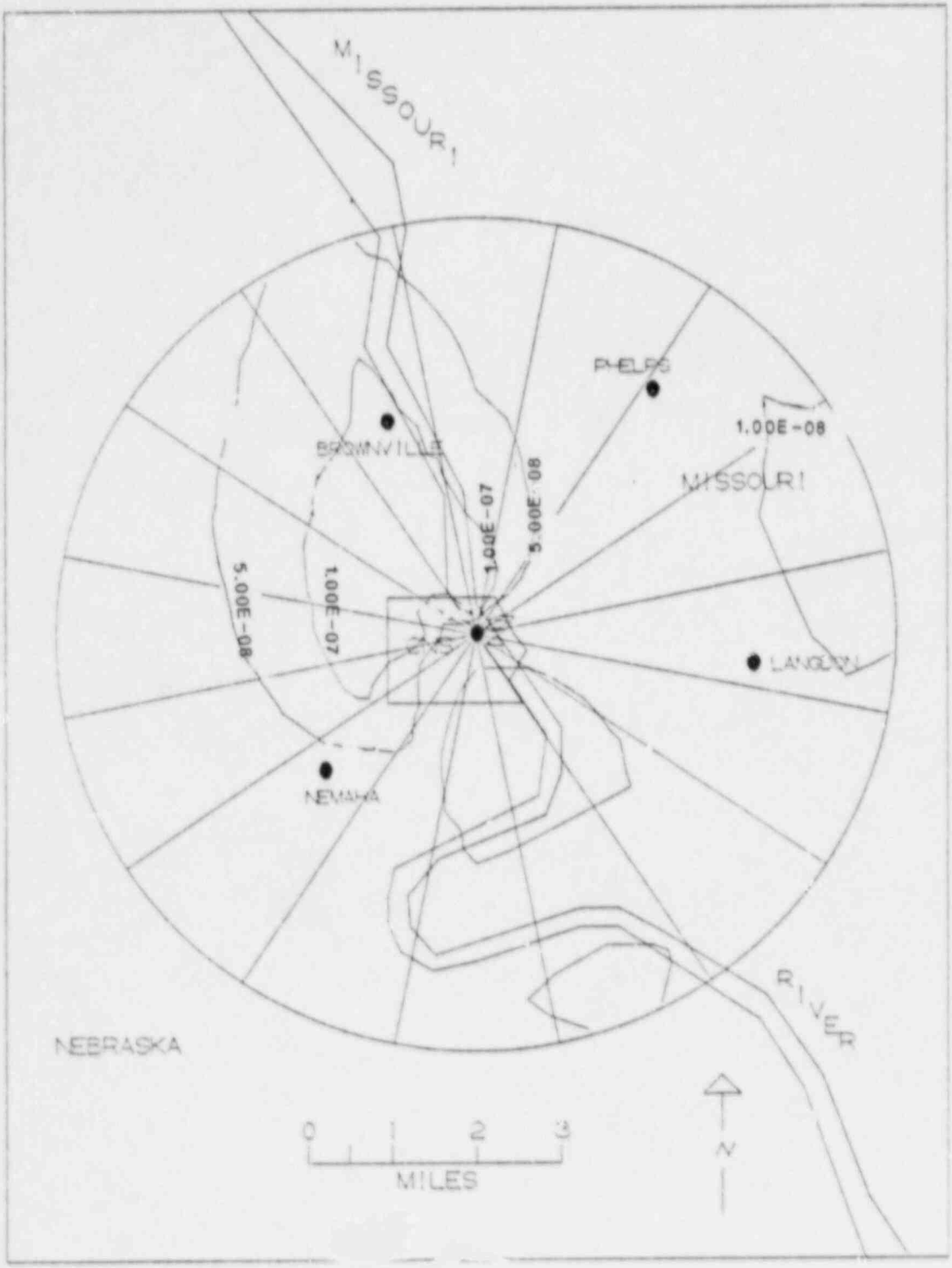

FIGURE F-13
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-5 MILES. ELEVATED RELEASES (SEC/M CUBED)
JANUARY-JUNE 1988

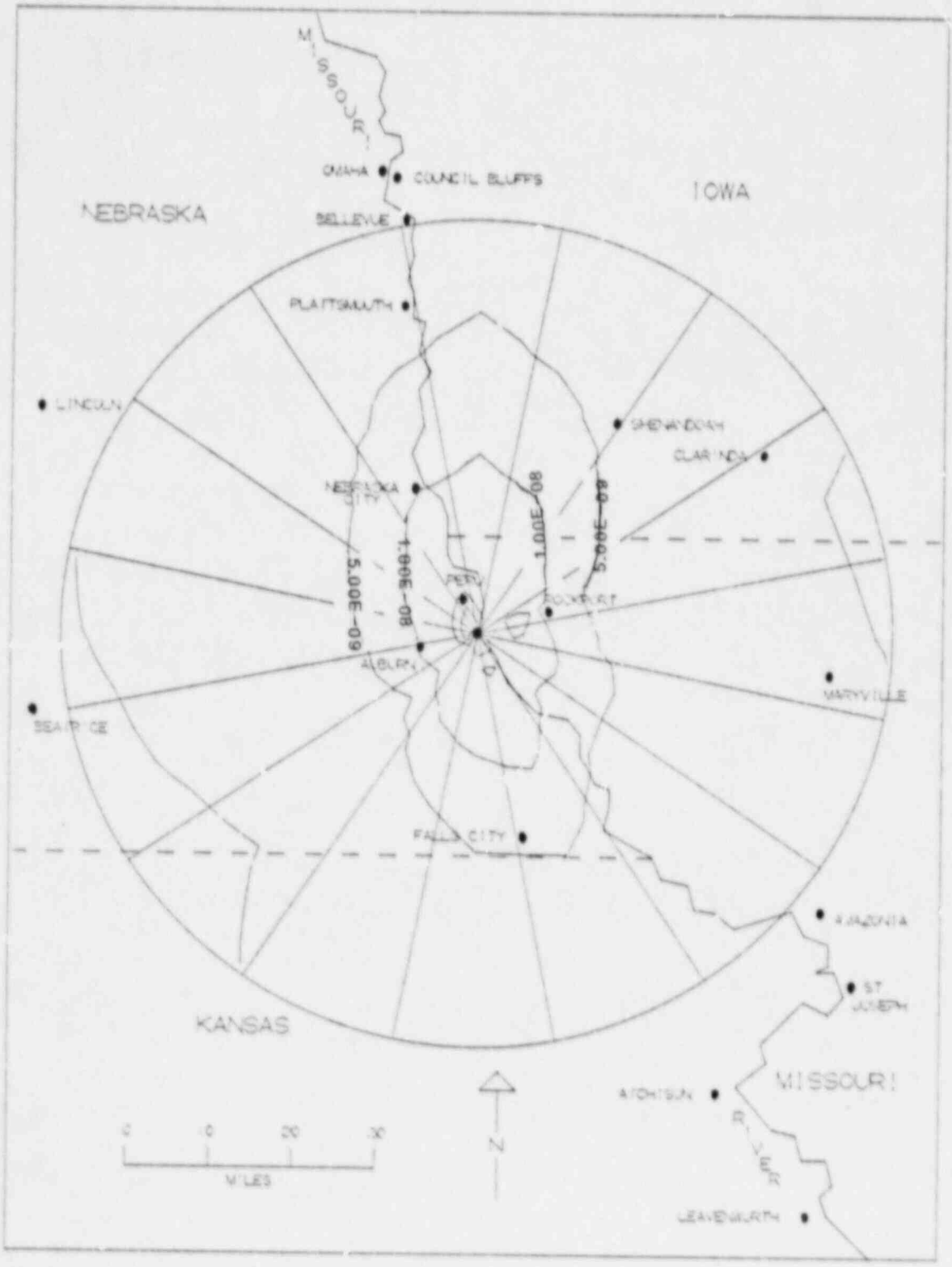

FIGURE F-14
ATMOSPHERIC DIFFUSION ESTIMATE ISOPLETHS
0-50 MILES ELEVATED RELEASES (SEC/M CUBED)
JANUARY-JUNE 1988

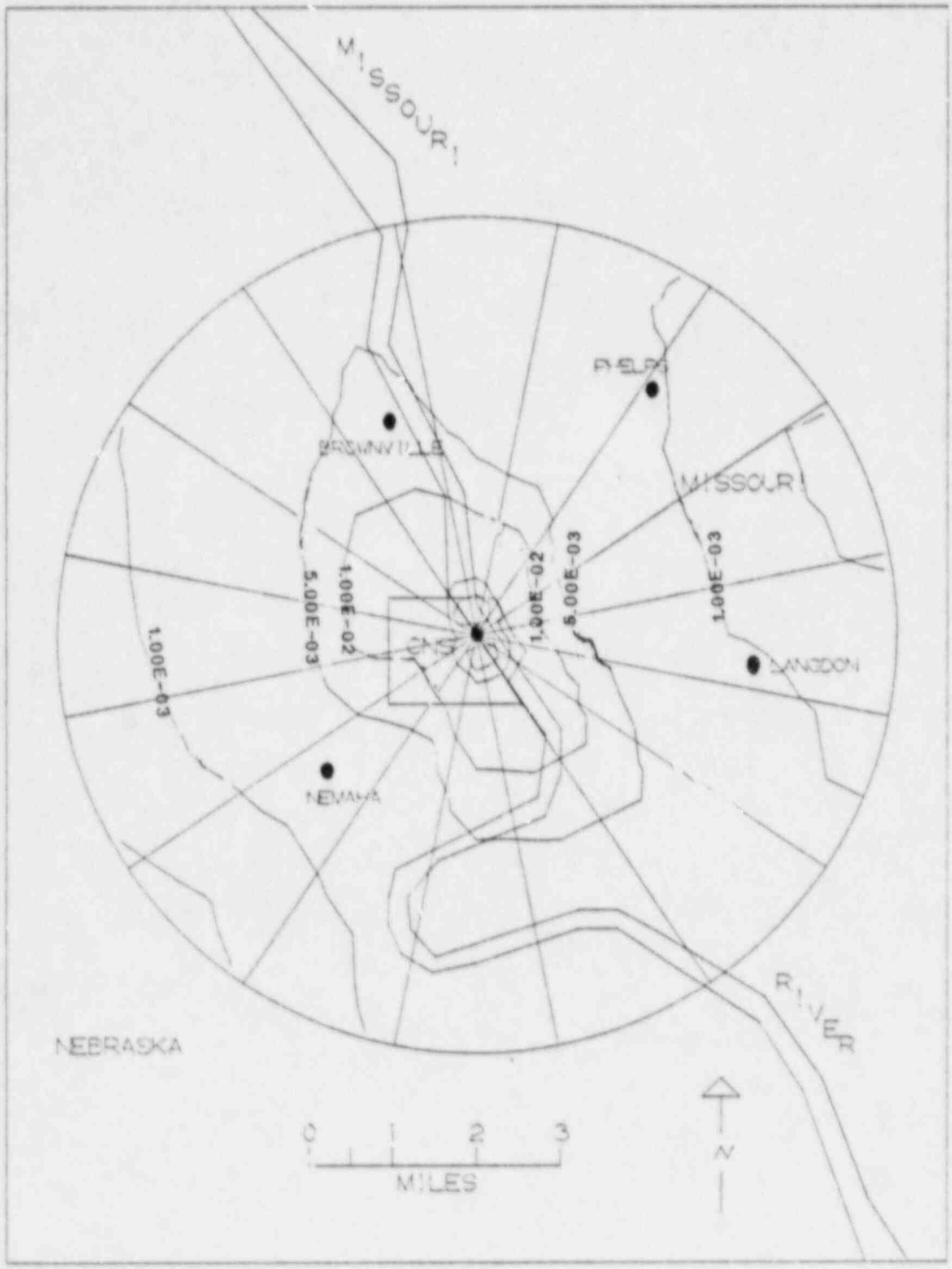

FIGURE 15
GAMMA AIR DOSE ISOPLETHS (MILLIRAD) 0-5 MILES
JANUARY-MARCH 1983

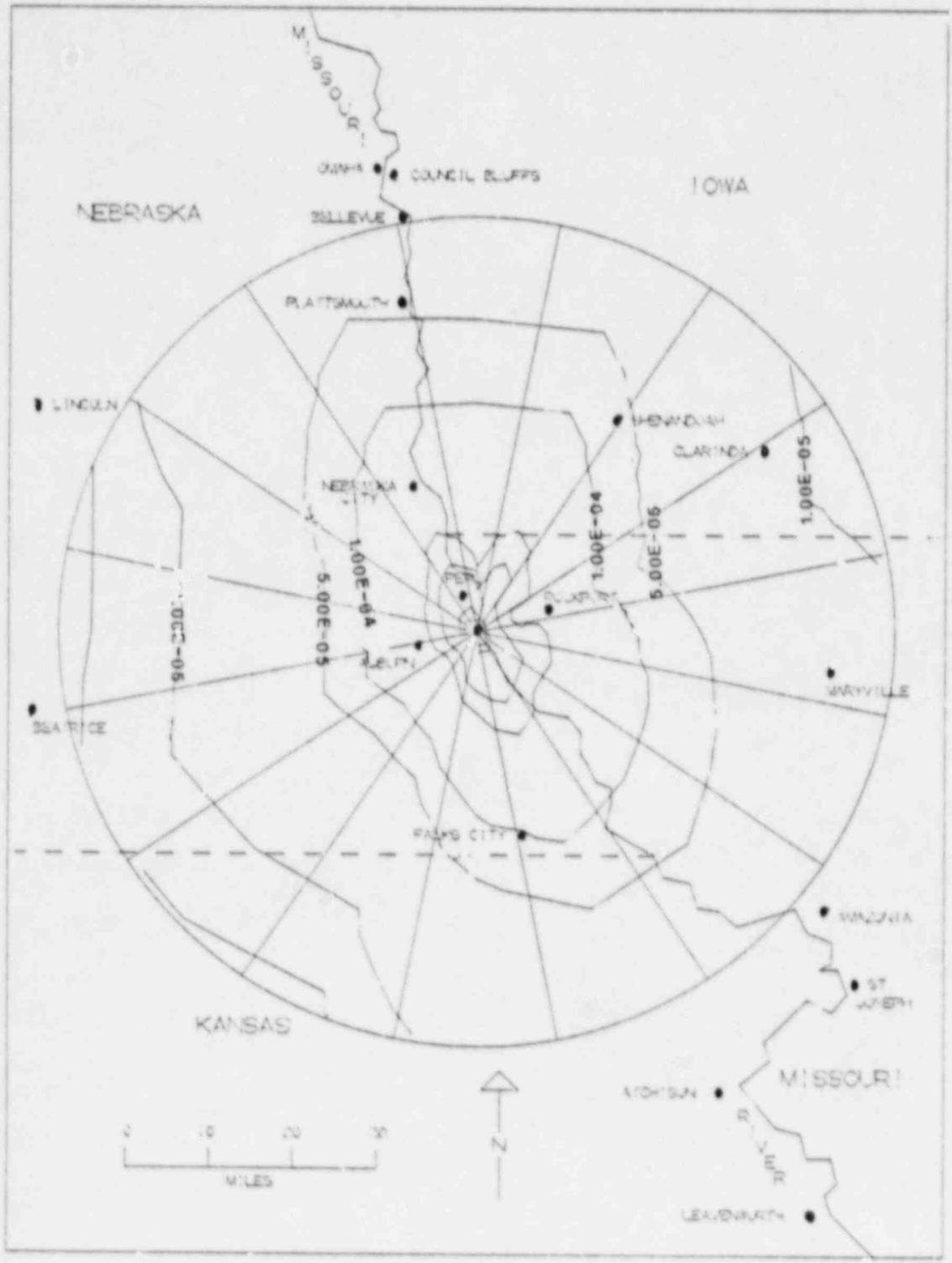

FIGURE 16
GAMMA AIR DOSE ISOPLETHS (MILLIRAD) 0-50 MILES
JANUARY-MARCH 1990

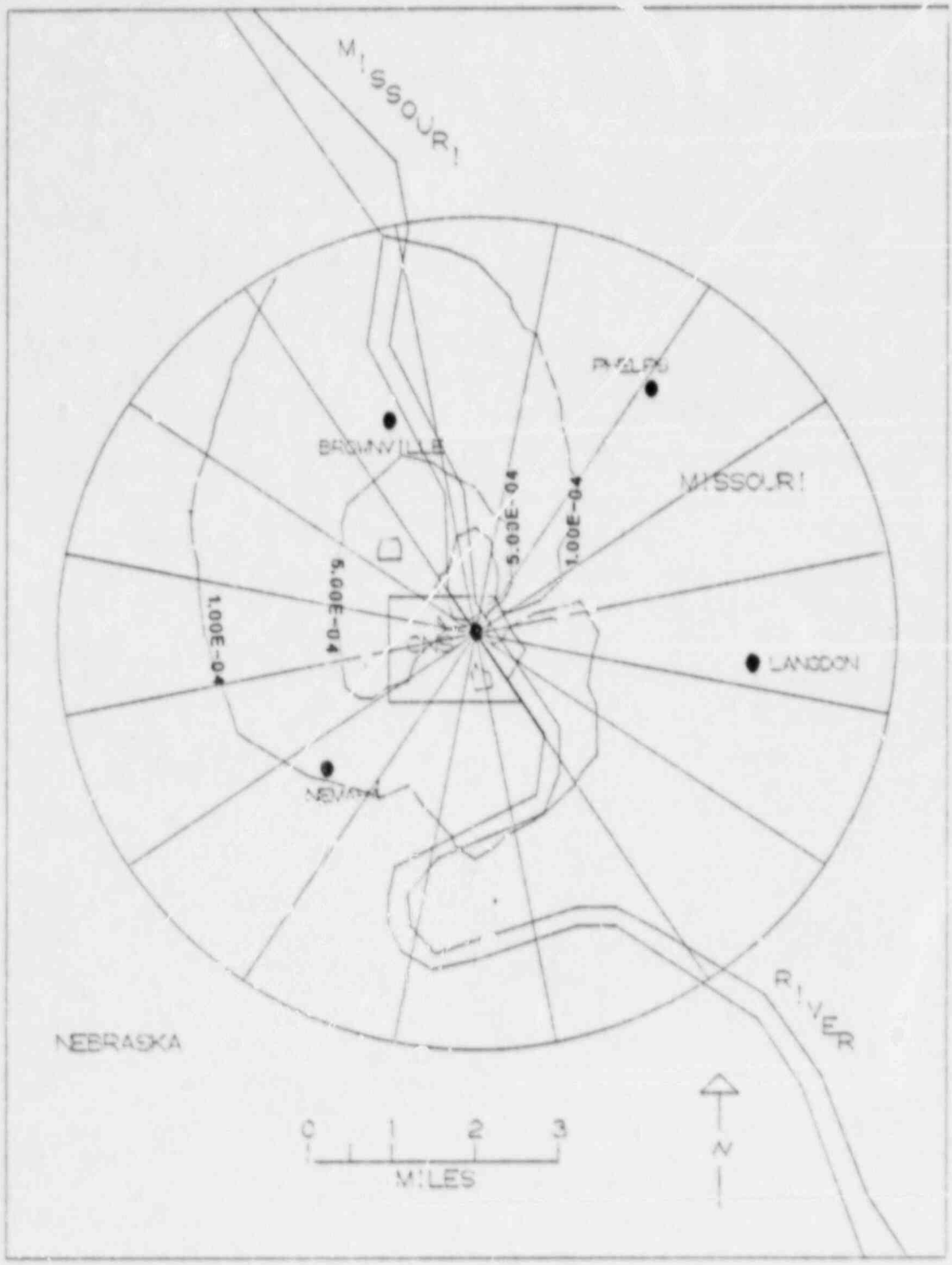

FIGURE 17
GAMMA AIR DOSE ISOPLETHS (MILLIRAD) 0-5 MILES
APRIL-JUNE 1988

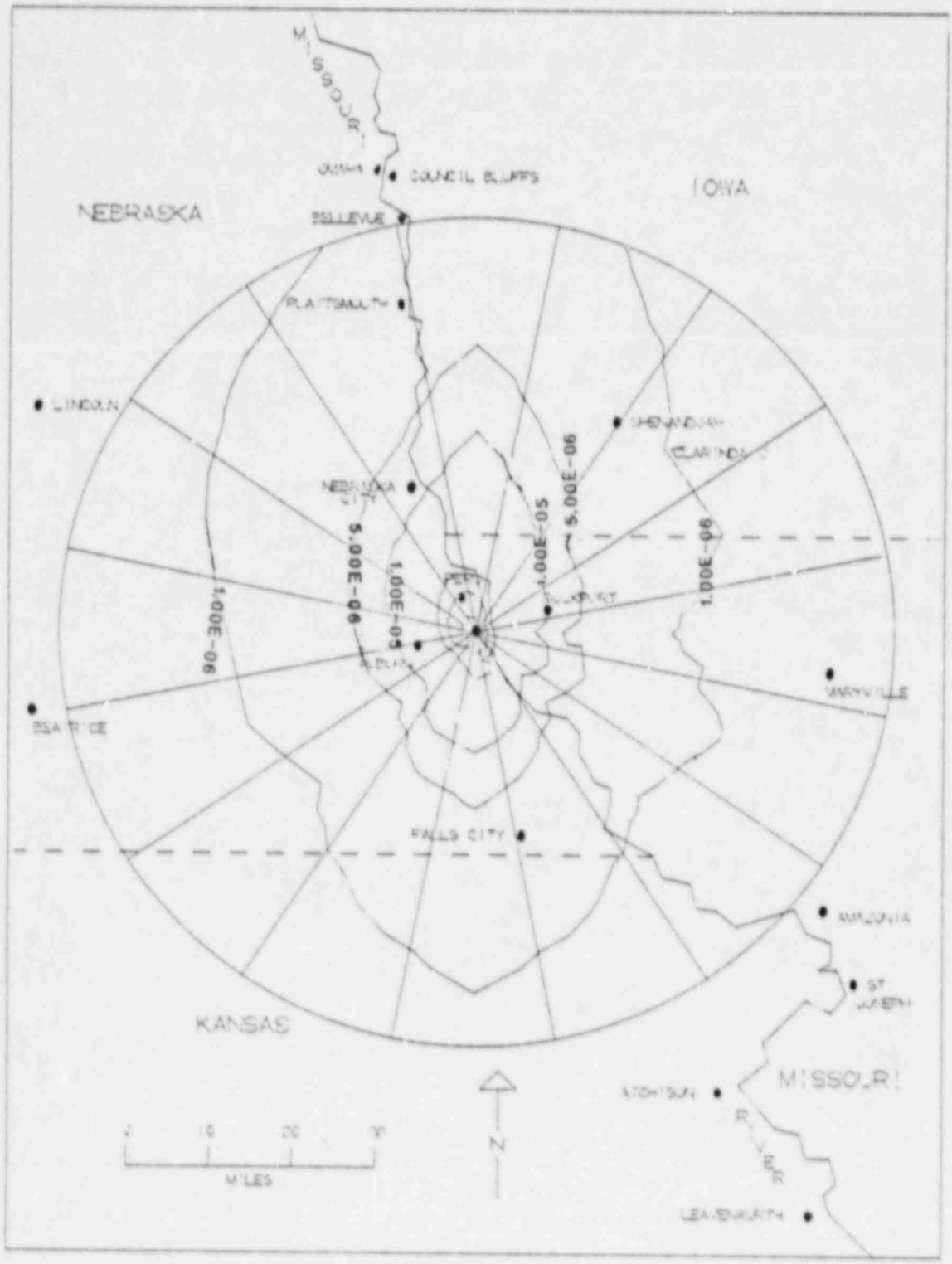

FIGURE 18
GAMMA AIR DOSE ISOPLETHS (MILLIRAD) 0-50 MILES
APRIL-JUNE 1968

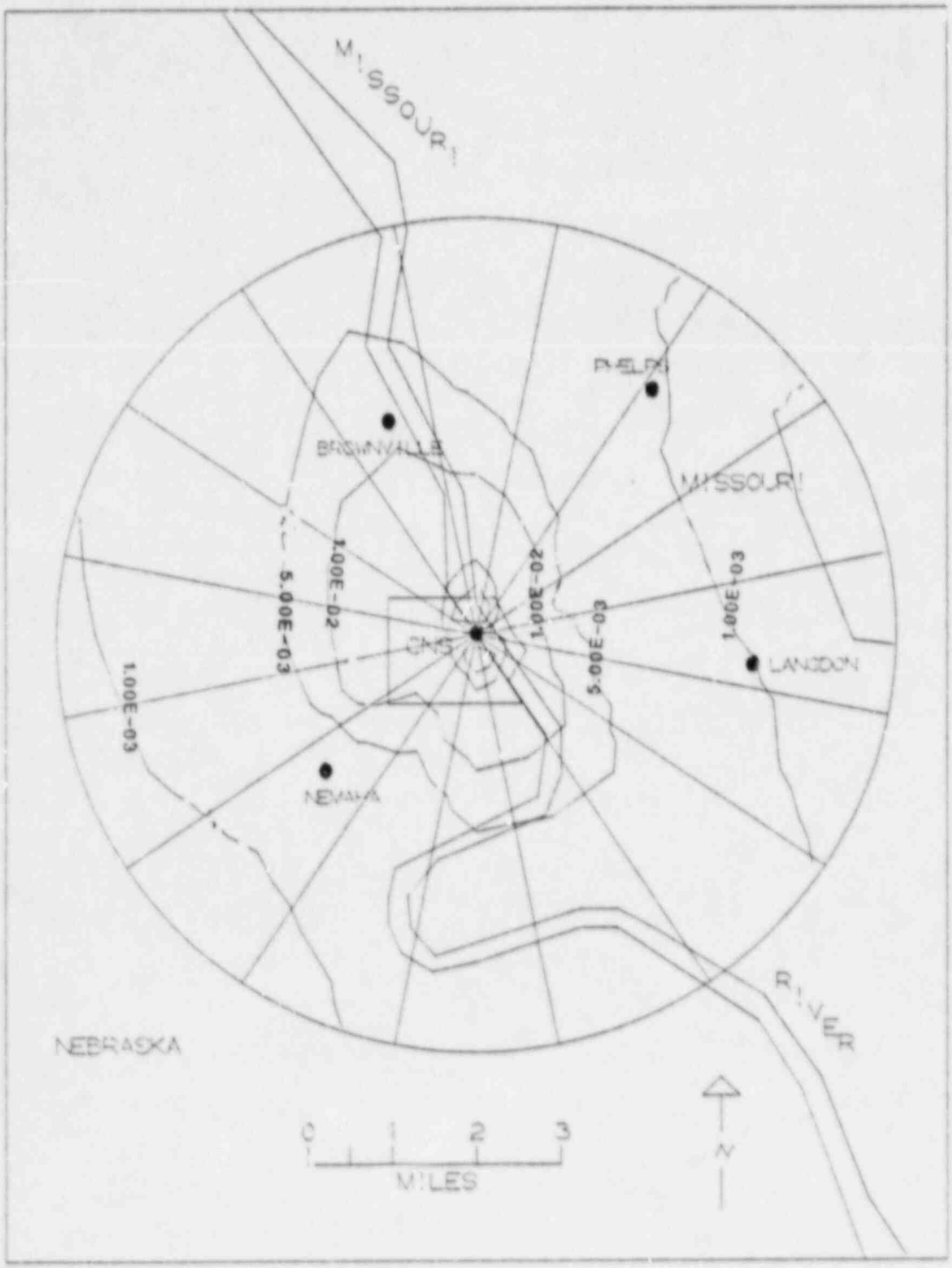

FIGURE 19
GAMMA AIR DOSE ISOPLETHS (MILLIRAD) 0-5 MILES
JANUARY-JUNE 1988

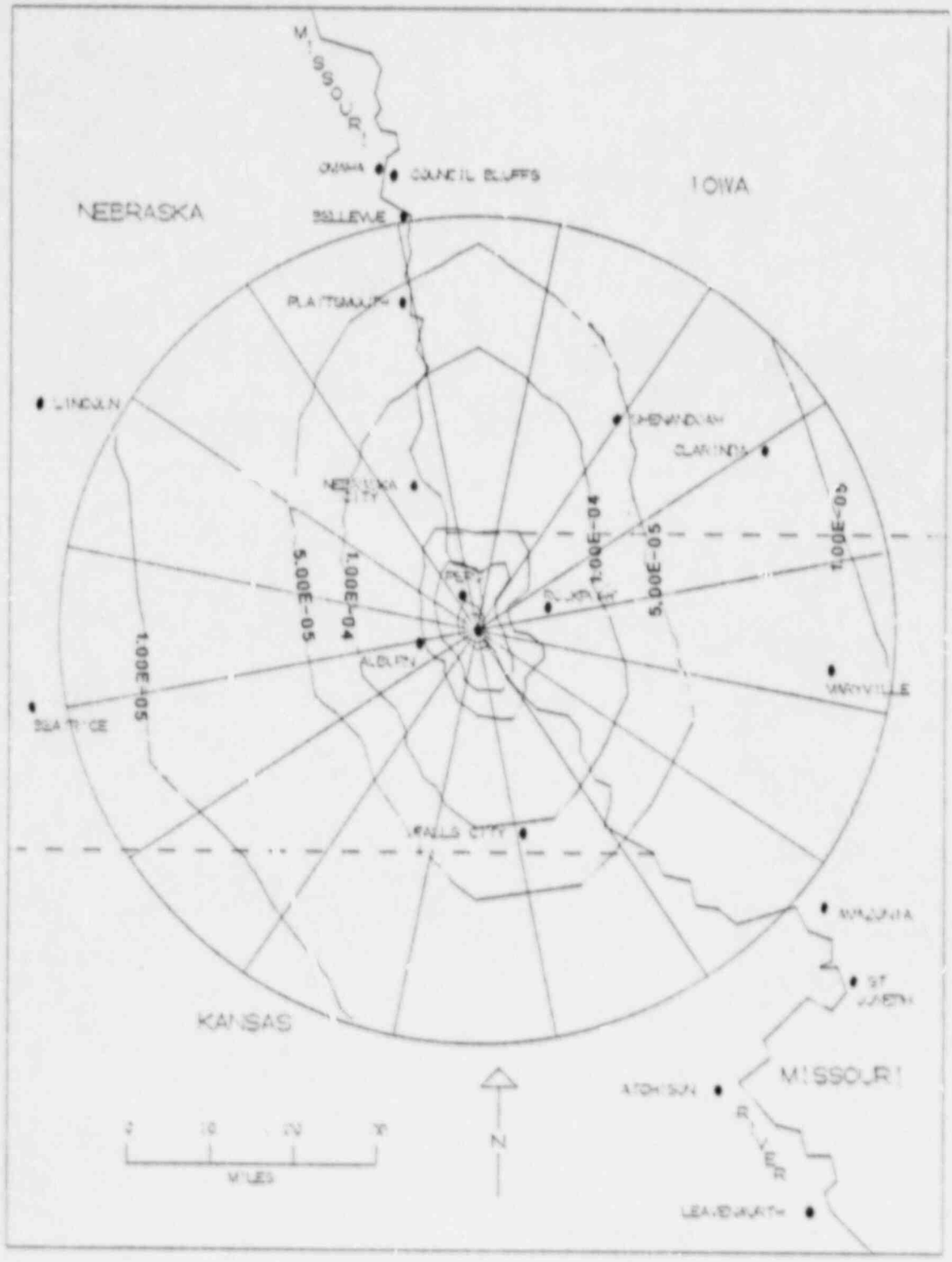

FIGURE 20
GAMMA AIR DOSE ISOPLETHS (MILLIRAD) 0-50 MILES
JANUARY-JUNE 1993

References

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants", Revision 1, 1974.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.23 (Safety Guide 23), "Onsite Meteorological Programs", Revision 0, 1972.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors", Revision 1, 1977.

U.S. Nuclear Regulatory Commission, NUREG/CR-2919, "XOQDOQ: Computer Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations", 1982.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors", Revision 0, 1976.

U.S. Nuclear Regulatory Commission, NUREG-0597, "User's Guide to GASPAR Code", December 1980.

U.S. Nuclear Regulatory Commission, NUREG/CR-1276, "User's Manual for LADTAP II: A Computer Code for Calculating Radiation exposure to Man from Routine Release of Nuclear Reactor Liquid Effluents", 1980.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Release of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I", Revision 1, 1977.