



Nebraska Public Power District

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August 18, 1994

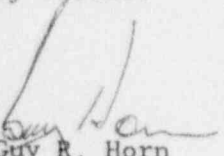
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

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

In accordance with Specification 6.5.1.F of the Cooper Nuclear Station Technical Specifications, the Nebraska Public Power District submits the Cooper Nuclear Station Semi-Annual Radioactive Material Release Report for the period January 1, 1994 through June 30, 1994.

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.


Guy R. Horn
Vice-President, Nuclear

GRH/hch-g:gl
Enclosures

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

NRC Senior Resident Inspector
Cooper Nuclear Station

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

SEMIANNUAL OPERATING REPORT

RADIOACTIVE EFFLUENTS

January 1, 1994 through June 30, 1994

USNRC Docket 50-298

Contents

Introduction

Appendix A: Source Terms

Appendix B: Meteorology

Appendix C: Dose Calculations

References

INTRODUCTION

This report summarizes meteorological data and doses from radioactive effluents for the Cooper Nuclear Station for the period January through June 1994. The data presented meet the reporting requirements of Regulatory Guide 1.21 of the U.S. Nuclear Regulatory Commission (Revision 1, 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. Descriptions of the dose calculation models are also included.

APPENDIX A

SOURCE TERMS

EFFLUENT AND WASTE DISPOSAL REPORTS

EFFLUENT AND WASTE DISPOSAL

January - June 1994

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 (NOTE 1)

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} $\mu\text{Ci/ml}$ 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.

NOTE 1: Radioactive effluent concentration limits are based on existing Technical Specification limits as outlined in the Nuclear Regulatory Commission letter dated June 30, 1993, T. E. Murley (NRC) to T. E. Tipton (NUMARC). Technical Specification proposed change No. 117, Revised 10CFR20 Implementation, is currently under NRC review.

B. Maximum Permissible Concentrations

1. Water - Covered in Section A.2.
2. Air - Covered in Section A.1.

C. Average Energy

The average energy (\bar{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 was analyzed for Sr-89, Sr-90, and gross alpha by an offsite laboratory.

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 an offsite laboratory.

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: 41
2. Total time period for batch releases: 1.06 E+04 minutes
3. Maximum time period for batch release: 4.03 E+02 minutes
4. Average time period for batch releases: 2.57 E+02 minutes
5. Minimum time period for a batch release: 1.19 E+02 minutes
6. Average stream flow during periods of release of effluent into a flowing stream: 7.63 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

		<u>Unit</u>	<u>1ST Quarter</u>	<u>2ND Quarter</u>	<u>EST. TOTAL ERROR %</u>
A.	Fission and activation gases				
1.	Total release	Ci	1.51 E+01	2.45 E+01	2.0 E+01
2.	Average release rate for period	μCi/sec	1.94 E+00	3.12 E+00	
B.	Iodines				
1.	Total iodine 131	Ci	1.63 E-05	2.03 E-05	3.0 E+01
2.	Average release rate for period	μCi/sec	2.10 E-06	2.58 E-06	
C.	Particulates				
1.	Particulates with half-lives >8 days	Ci	6.74 E-05	3.51 E-04	5.0 E+01
2.	Average release rate for period	μCi/sec	8.67 E-06	4.46 E-05	
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

<u>NUCLIDES RELEASED</u>	<u>UNIT</u>	CONTINUOUS MODE		*BATCH
		<u>1ST QUARTER</u>	<u>2ND QUARTER</u>	
1. Fission gases.				
krypton-83m	Ci	1.30 E-01	2.10 E-01	
krypton-85m	Ci	2.30 E-01	3.70 E-01	
krypton-85	Ci	7.00 E-01	1.10 E+00	
krypton-87	Ci	7.40 E-01	1.20 E+00	
krypton-88	Ci	7.40 E-01	1.20 E+00	
krypton-89	Ci	3.50 E+00	5.70 E+00	
xenon-133m	Ci	1.00 E-02	1.70 E-02	
xenon-133	Ci	5.30 E-01	8.70 E-01	
xenon-135m	Ci	2.50 E-01	4.10 E-01	
xenon-135	Ci	9.20 E-01	1.50 E+00	
xenon-137	Ci	4.20 E+00	6.90 E+00	
xenon-138	Ci	3.10 E+00	5.00 E+00	
Total for period	Ci	1.51 E+01	2.45 E+01	
2. Iodines.				
iodine-131	Ci	1.63 E-05	2.03 E-05	
iodine-135	Ci	0.00 E+00	1.54 E-05	
Total for period	Ci	1.63 E-05	3.57 E-05	

* No batch discharges were made

TABLE 1B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
GASEOUS EFFLUENT-ELEVATED RELEASE (continued)

<u>NUCLIDES RELEASED</u>	<u>UNIT</u>	<u>CONTINUOUS MODE</u>		<u>*BATCH</u>
		<u>1ST QUARTER</u>	<u>2ND QUARTER</u>	
3. Particulates.				
cesium-138	ci	3.98 E-05	1.53 E-04	
barium-139	ci	2.76 E-05	5.48 E-05	
Total for period	ci	6.74 E-05	2.08 E-04	

*No batch discharges were made.

TABLE 1C
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
GASEOUS EFFLUENT-BUILDING VENT RELEASES

	<u>NUCLIDES RELEASED</u>	<u>UNIT</u>	<u>1ST QUARTER</u>	<u>2nd QUARTER</u>
1.	Fission gases.			
	krypton-85m	Ci	0.00 E+00	0.00 E+00
	krypton-87	Ci	0.00 E+00	0.00 E+00
	krypton-88	Ci	0.00 E+00	0.00 E+00
	xenon-133	Ci	0.00 E+00	0.00 E+00
	xenon-135m	Ci	0.00 E+00	0.00 E+00
	xenon-135	Ci	0.00 E+00	0.00 E+00
	xenon-138	Ci	0.00 E+00	0.00 E+00
	Total for period	Ci	0.00 E+00	0.00 E+00
2.	Iodines.			
	Iodine-131	Ci	0.00 E+00	0.00 E+00
	Iodine-133	Ci	0.00 E+00	0.00 E+00
	Total for period	Ci	0.00 E+00	0.00 E+00
3.	Particulates.			
	cobalt-60	Ci	0.00 E+00	1.43 E-04
	Total for period	Ci	0.00 E+00	1.43 E-04

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	<u>UNIT</u>	<u>1ST QUARTER</u>	<u>2ND QUARTER</u>	<u>EST. TOTAL ERROR %</u>
A. Fission and activation products.				
1. Total release (not including tritium, gases, alpha)	Ci	1.29 E-01	1.79 E-01	2.0 E+01
2. Average diluted concentration during period	μCi/ml	1.83 E-08	1.89 E-08	
B. Tritium.				
1. Total release	Ci	8.44 E-01	1.41 E+00	2.0 E+01
2. Average diluted concentration during period	μCi/ml	1.20 E-07	1.49 E-07	
C. Dissolved and entrained gases.				
1. Total release	Ci	0.00 E+00	0.00 E+00	5.0 E+01
2. Average diluted concentration during period	μCi/ml	0.00 E+00	0.00 E+00	
D. Gross alpha radioactivity.				
1. Total release	Ci	0.00 E+00	5.24 E-05	5.0 E+01
E. Volume of waste released (prior to dilution).	liters	1.08 E+06	1.67 E+06	1.0 E+01
F. Volume of dilution water used during period.	liters	7.04 E+09	9.46 E+09	1.0 E+01

TABLE 2B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
LIQUID EFFLUENTS

<u>NUCLIDES RELEASED</u>	<u>UNIT</u>	CONTINUOUS MODE*	BATCH MODE
		<u>1ST QUARTER</u>	<u>2ND QUARTER</u>
manganese-54	Ci	2.14 E-02	1.45 E-02
iron-55	Ci	1.30 E-02	4.81 E-03
cobalt-58	Ci	1.36 E-03	1.09 E-03
cobalt-60	Ci	8.84 E-02	1.38 E-01
strontium-89	Ci	7.22 E-04	2.42 E-03
cesium-134	Ci	4.57 E-05	1.53 E-03
cesium-137	Ci	2.39 E-03	9.50 E-03
silver-110m	Ci	1.81 E-03	6.84 E-03
zinc-65	Ci	0.00 E+00	1.51 E-04
Total for period above	Ci	1.29 E-01	1.79 E-01
xenon-133	Ci	0.00 E+00	0.00 E+00
xenon-135	Ci	0.00 E+00	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, 1994 TO June 30, 1994

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 Ci	4.76 E+01 9.49 E+02	15%
b.	Dry compressible waste, con- taminated equip, etc.	m ³ Ci	1.06 E+01 6.10 E-02	25%
c.	Irradiated components, con- trol rods, etc.	m ³ Ci		
d.	Other.	m ³ Ci		

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

a.	cadmium-109	3.58 E-01
	carbon-14	7.53 E-02
	cesium-134	6.30 E-03
	cesium-137	1.53 E-01
	chromium-51	1.90 E+01
	cobalt-57	3.49 E-03
	cobalt-58	6.59 E+00
	cobalt-60	3.31 E+01
	curium-242	3.02 E-06
	iodine-131	4.35 E-04
	iron-55	1.85 E+01
	iron-59	2.95 E-01
	manganese-54	1.90 E+01
	nickel-59	1.28 E-02
	nickel-63	1.02 E+00
	plutonium-241	5.69 E-05
	silver-110m	3.41 E-01
	sodium-24	3.97 E-04
	strontium-89	1.47 E-01
	strontium-90	3.64 E-03
	transuranics	7.59 E-06
	tritium	2.37 E-03
	zinc-65	1.49 E+00
b.	antimony-125	1.58 E-01
	carbon-14	3.56 E-02
	cesium-134	5.57 E-01
	cesium-137	2.57 E+00
	chromium-51	4.07 E+00

b. (continued)

cobalt-57	9.64 E-03
cobalt-58	6.98 E-01
cobalt-60	4.21 E+01
iron-55	4.36 E+01
lanthanum-140	3.64 E-01
manganese-54	3.08 E+00
nickel-63	1.14 E+00
silver-110m	8.23 E-01
strontium-89	2.12 E-02
strontium-90	8.03 E-04
transuranics	2.36 E-04
tritium	7.18 E-01

3. SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS

MODE OF TRANSPORTATION

DESTINATION

21

Exclusive Use Vehicle

Barnwell, SC

4. SOLIDIFICATION AGENT

No shipments required solidification during this semiannual period.

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS

MODE OF TRANSPORTATION

DESTINATION

0

N/A

N/A

GASEOUS RADIOACTIVE WASTES

CUMULATIVE DOSE DATA

A. Maximum gamma air dose 1st Qtr 2nd Qtr 3rd Qtr 4th Qtr Annual

Site boundary (0.67 miles North) (0.69 miles NNW)

1. Total mrad 6.91E-5 8.47E-4

2. Percent of Technical

Specification Limit % 0.00 0.02

Most Exposed Resident (0.9 miles Northwest)

1. Total mrad 3.50E-4 7.53E-4

2. Percent of Technical

Specification Limit % 0.01 0.02

B. Maximum beta air dose

Site boundary (0.67 miles North) (0.69 miles NNW)

1. Total mrad 6.81E-5 8.23E-4

2. Percent of Technical

Specification Limit % 0.00 0.01

Most Exposed Resident (0.9 miles Northwest)

1. Total mrad 3.16E-4 7.26E-4

2. Percent of Technical

Specification Limit % 0.00 0.01

C. Maximum organ dose due to
I-131, I-133, and particulates
(>8 day half lives)

Site boundary (0.67 miles North) (0.69 miles NNW)

1. Total mrem 3.38E-4 2.28E-3

2. Percent of Technical

Specification Limit % 0.00 0.03

3. Organ Thyroid Thyroid

4. Exposed Individual Infant Infant

Most Exposed Resident (0.9 miles Northwest)

1. Total mrem 7.87E-4 1.09E-3

2. Percent of Technical

Specification Limit % 0.01 0.01

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 2.28 E-03 mrem/quarter which was 0.03 % 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 skin (3000 mrem/yr) are not exceeded.

LIQUID RADIOACTIVE WASTES

CUMULATIVE DOSE DATA

A. Maximum whole body dose		1st Qtr	2nd Qtr
1. Total	mrem	7.18E-4	2.18E-3
2. Percent of Technical Specification Limit	%	0.05	0.15

B. Maximum organ dose			
1. Total	mrem	4.53E-3	5.59E-3
2. Percent of Technical Specification Limit	%	0.09	0.11

- 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. District Initiated Changes to the Process Control Program:

During this period, there were no changes to the CNS Process Control Program.

C. District Initiated Changes to the Offsite Dose Assessment Manual:

See following pages.

District Initiated Changes to the Offsite Dose Assessment Manual

Several changes were made to the Cooper Nuclear Station Offsite Dose Assessment Manual (ODAM) during this period. These changes were to ODA Appendix C.

Per Cooper Nuclear Station Technical Specification 6.7.2, the following District initiated changes to the ODA are included in the Semi-Annual Radioactive Materials Release Report. This includes a description of the changes with their justification. A copy of the revised ODA pages with revision bars in the right hand margin added for clarity is also included. These changes have been approved by the Station Operations Review Committee (SORC) as required by Technical Specification 6.7.2.B.

List of Effective Pages

Change: Changed the effective date on the following pages:

	<u>Page</u>	<u>Old Effective Date</u>	<u>New Effective Date</u>
Appendix C:	C-2	10/31/91	05/16/94
	C-4	07/09/92	05/16/94
	C-7	07/09/92	05/16/94
	C-9	12/29/88	05/16/94
	C-10	07/09/92	05/16/94

Justification: SORC approved changes to Appendix C of the ODA on June 2, 1994, during SORC meeting S94-076.

Page C-2

Change: The location of the Sample Station No. 1 air monitor has been moved from the roof of the CNS Material Storage warehouse to on the ground near the low level radwaste storage pad.

Justification: This change was made primary for personnel safety reasons, and is strictly editorial in nature.

Page C-4

Change: 1) The Broadleaf vegetation sample at Station No. 96 is being moved to Station No. 28; and, 2) Editorial change in the location description of Station No. 56 (i.e. change spelling of Gebheart to Gebhards).

Justification: 1) Following review of wind directions and predicted annual average ground level D/Q for 1993, it was decided to add broadleaf vegetation sampling to Sample Station No. 28 and to place Sample Station No. 96 on inactive status. The resultant active Sample Stations meet the requirements of Table 3.21.F.1 in the CNS Plant Technical Specifications; 2) This is strictly an editorial change.

Page C-7

Change: 1) An editorial change in the location description of Station No. 91 (i.e. correct owner name of property of Mildred Cook to Richard H. and Vicki Cook); Delete Sample Station No. 96.

Justification: 1) This is strictly an editorial change; 2) Following review of wind directions and predicted annual average ground level D/Q for 1993, it was decided to add broadleaf vegetation sampling to Sample Station No. 28 and to place Sample Station No. 96 on inactive status. The resultant active Sample Stations meet the requirements of Table 3.21.F.1 in the CNS Plant Technical Specifications.

Page C-9

Change: Relocate Sample Station No. 1 on Figure C-1.

Justification: This change was made primary for personnel safety reasons, and is strictly editorial in nature.

Page C-10

Change: Delete Sample Station No.96 from Figure C-2.

Justification: Following review of wind directions and predicted annual average ground level D/Q for 1993, it was decided to add broadleaf vegetation sampling to Sample Station No. 28 and to place Sample Station No. 96 on inactive status. The resultant active Sample Stations meet the requirements of Table 3.21.F.1 in the CNS Plant Technical Specifications.

COOPER NUCLEAR STATION
OFFSITE DOSE ASSESSMENT MANUAL
-ODAM-
LIST OF EFFECTIVE PAGES
as of July 9, 1992

<u>PAGE</u>	<u>DATE</u>	<u>PAGE</u>	<u>DATE</u>	<u>PAGE</u>	<u>DATE</u>
i	12/29/88	34	12/29/88	Appendix C (Cont.)	
ii	1/27/89	35	1/27/89	C-4	5/16/94
1	Original	36	12/29/88	C-5	7/9/92
2	Original	37	1/27/89	C-6	7/9/92
3	Original	38	12/29/88	C-7	5/16/94
4	Original	39	12/29/88	C-8	8/30/90
5	Original	40	12/29/88	C-9	5/16/94
6	1/27/89	41	12/29/88	C-10	5/16/94
7	12/06/90	42	Original		
8	Original	43	Original		
9	1/27/89	44	Original		
10	Original	45	Original		
11	12/29/88	46	Original		
12	1/27/89	47	Original		
13	12/29/88	48	Original		
14	12/29/88	49	Original		
15	12/29/88	50	Original		
16	12/29/88	51	12/29/88		
17	Original	52	Original		
18	Original	53	Original		
19	Original	54	Original		
20	Original	55	Original		
21	Original	56	Original		
22	Original	57	Original		
23	Original				
24	Original	Appendix A:			
25	Original	(Deleted)	1/27/89		
26	1/27/89	Appendix B:			
27	12/29/88	Pages B-1 through			
28	12/29/88	B-7	Original		
29	1/27/89	Appendix C:			
30	12/29/88	C-1	Original		
31	1/27/89	C-2	5/16/94		
32	12/29/88	C-3	7/9/92		
33	12/29/88				

NOTE: Original refers to page in effect on July 1, 1986 when the ODAM was implemented.

SAMPLE DESCRIPTION - TYPE LOCATION
SAMPLE TYPES AND SAMPLE LOCATIONS^(a)
 (See Sample Station Locations Map - Figures C-1 and C-2)

<u>Sample Station</u>	<u>Sample Description - Type and Location</u>	
No. 1	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry	Location: Outside the northwest edge of fence, east of the gate to the LLRW storage pad on the CNS site, NW¼, S32, T5N, R16E, Nemaha County, Nebraska.
No. 2	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry	Location: On north side of county road access to the south portion of the CNS site approximately 275 feet west of the former Jefferson Broady farmstead, SW¼, S32, T5N, R16E, Nemaha County, Nebraska.
No. 3	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry	Location: Located on the north side of the Brownville State Recreation Park access road near water gauging station, SE¼, S18, T5N, R16E, Nemaha County, Nebraska.
No. 4	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry	Location: Located ½ mile south of Phelps City, Missouri, on west side of Highway "U," NE¼, S2, T64N, R42W, Atchison County, Missouri.
No. 5	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry	Location: One-fourth mile south and one-fourth mile east of Langdon, Missouri, on north side of road, west of railroad tracks, SW¼, S18, T64N, R41W, Atchison County, Missouri.
No. 6	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry	Location: One mile west of the end of Missouri State Highway "U," south side of road, SW corner of the intersection, NW¼, S34, T64N, R42W, Atchison County, Missouri.

<u>Sample Station</u>	<u>Sample Description - Type and Location</u>	
No. 28	Type: (1) Water - River (2) Fish (3) Sediment from Shoreline (4) Food Products - Broadleaf Vegetation	
	Location:	Samples (1), (3) and (4) are taken from the Missouri River or its shore, below the Plant Discharge Flume Outfall near River Mile 530. Sample (2) is taken from the Missouri river one-half to three miles downstream from the plant site.
No. 35	Type: (1) Fish (2) Food Products - Broadleaf Vegetation	
	Location:	Sample (1) will be taken twice a year from the Missouri River about one to three miles above intake structure. Sample (2) will be taken approximately ¼ mile south of the Brownville State Recreation Area in Sector A.
No. 42	Type: (1) Milk (Other Producer)	
	Location:	One mile south, 1¼ miles east of Barada, Nebraska, south side of road, Meinert Wissman farm, NW¼, S30, T3N, R17E, Richardson County, Nebraska.
No. 44	Type: (1) Environmental Thermoluminescent Dosimetry (2) Food Products - Broadleaf Vegetation	
	Location:	Two miles south of Auburn stop light, ¼ mile south of Auburn Country Club on Highway #75, ½ mile east of Highway #75 at fence line north of county road, SE¼, S27, T5N, R14E, Nemaha County, Nebraska.
No. 47	Type: (1) Water - Ground	
	Location:	At Falls City Municipal Water Supply Wells south of Rulo, Nebraska (out of Main Header Flow Meter), SW¼, S20, T1N, R18E, Richardson County, Nebraska.
No. 56	Type: (1) Environmental Thermoluminescent Dosimetry	
	Location:	One and one-fourth mile south and west of Langdon, Missouri, on Highway "U", on the right side of the highway, Bill Gebhards farm, NW¼, S23, T64N, R42W, Atchison County, Missouri.
No. 58	Type: (1) Environmental Thermoluminescent Dosimetry	
	Location:	Three miles south of Brownville, Nebraska, on county road, at the southeast corner of the intersection, with the farm road leading to Sample Station No. 2, SE¼, S31, T5N, R16E, Nemaha County, Nebraska.

<u>Sample Station</u>	<u>Sample Description - Type and Location</u>	
No. 89	Type: (1)	Environmental Thermoluminescent Dosimetry
	Location:	2½ miles south of Phelps City, Missouri, on Highway "U", then ½ mile west in the southeast corner of the county road intersection. Gertrude Rosenbohm, (NE¼, Section 14, T64N, R42W) Atchison County, Missouri.
No. 90	Type: (1)	Environmental Thermoluminescent Dosimetry
	Location:	1½ miles west and ¾ mile south of Langdon, Missouri, on Highway "U", then ¼ mile west. Garth Green, (SW¼, Section 23, T64N, R42W) Atchison County, Missouri.
No. 91	Type: (1)	Environmental Thermoluminescent Dosimetry
	Location:	½ mile west of Rock Port, Missouri, on the south side of the intersection of U.S. Highway 136 and U.S. Highway 275 at the water tower. Richard H. and Vicki Cook, (NW¼, Section 28, T65N, R41W) Atchison County, Missouri.
No. 94	Type: (1)	Environmental Thermoluminescent Dosimetry
	Location:	¼ mile south of Langdon, Missouri, on the west side of the road. Max Peeler, (NE¼, Section 24, T64N, R42W) Atchison County, Missouri.
No. 99	Type: (1)	Milk (Nearest Producer)
	Location:	1¼ miles south of Shubert, Nebraska, on the west side of Highway 67. James Zentner dairy. (NE¼, S24, T3N, R15E), Richardson County, Nebraska.
No. 100	Type: (1)	Milk (Other Producer)
	Location:	Two miles south and one mile west of Shubert, Nebraska, Dick James dairy. (SW¼, S23, T3N, R15E), Richardson County, Nebraska.

NOTES:

- (a) Sample Station numbers missing from sequence are inactive or discontinued Sample Stations.



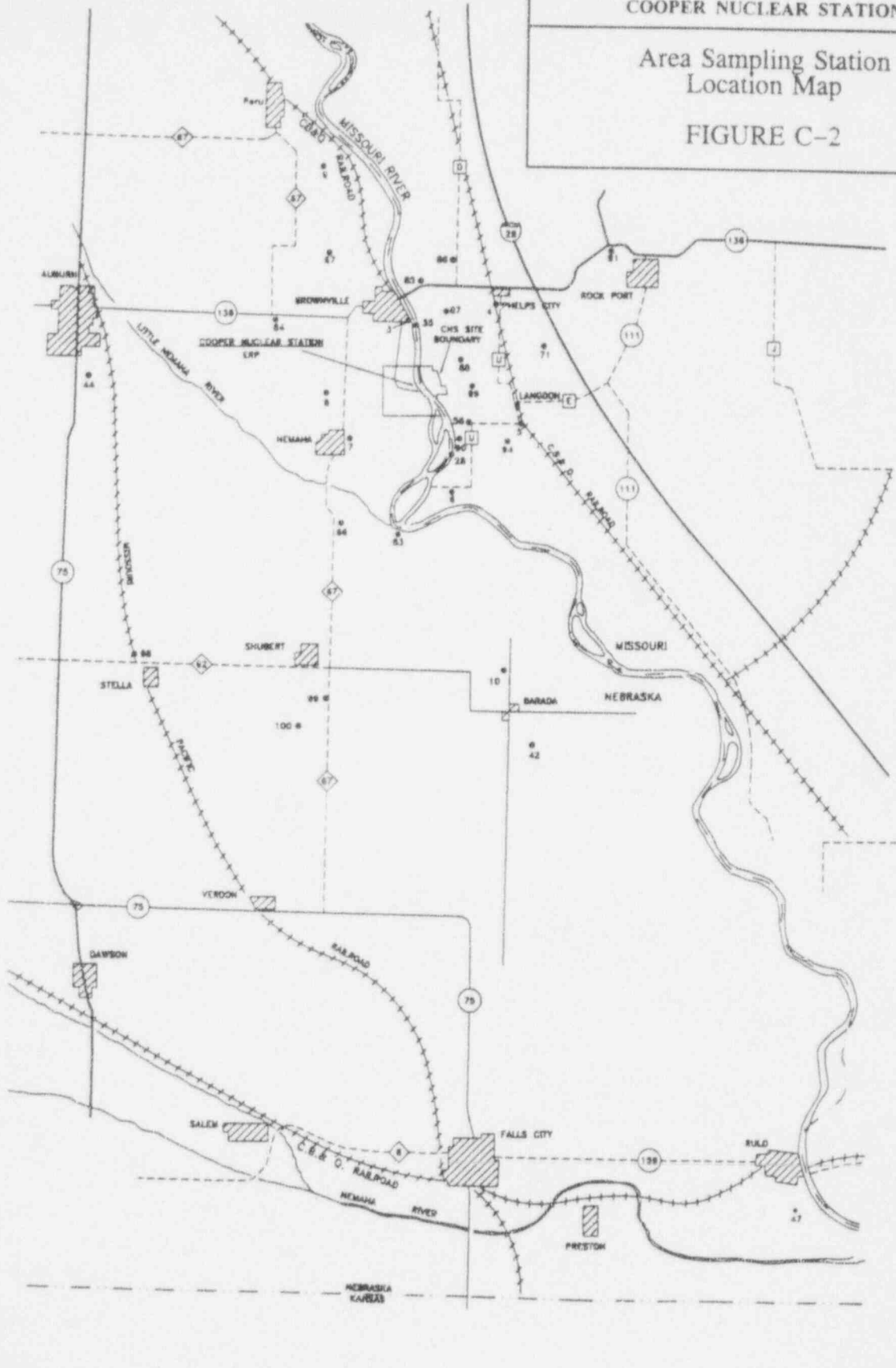
C-9

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NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION

Area Sampling Station
Location Map

FIGURE C-2



SCALE IN MILES



APPENDIX B

METEOROLOGY

CONTENTS

	<u>Page</u>
METEOROLOGICAL DATA SUMMARIES	B1
MONTHLY SUMMARY TABLES OF HOURLY METEOROLOGICAL DATA	B5
JOINT FREQUENCY DISTRIBUTION TABLES	B67
ATMOSPHERIC DIFFUSION ESTIMATES	B116
ATMOSPHERIC DIFFUSION MODEL	B153

METEOROLOGICAL DATA SUMMARIES

Meteorological data collected onsite for the period January 1, 1994, through June 31, 1994, were reduced, validated, summarized for analysis, and included in appropriate data calculations. Hourly data summaries are provided for all pertinent parameters and for the joint frequency distributions (JFD's) 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.

	<u>Lowest Data Recovery</u>	<u>Average Data Recovery</u>
January 1 - March 31, 1994 (Q1)	97.2%	99.1%
April 1 - June 30, 1994 (Q2)	97.5%	98.9%
First Semiannual Period - January 1 - June 30, 1994 (SEM1)	98.2%	99.0%

WIND AT 100-METER LEVEL AND 10-METER LEVEL

	<u>Predominant Wind Direction at 100m Level</u>	<u>Predominant Wind Direction at 10m Level</u>
Q1	NorthNorthwest 15.9%	NorthNorthwest 16.0%
Q2	South 16.8%	South 15.8%
Sem1	South 12.1%	South 12.1%
	<u>Mean Wind Speed at 100m Level</u>	<u>Mean Wind Speed at 10m Level</u>
Q1	13.8 MPH	8.5 MPH
Q2	14.1 MPH	8.5 MPH
SEM1	13.9 MPH	8.5 MPH
	<u>Maximum Hourly Average Wind Speed/(Date at 100m Level)</u>	<u>Maximum Hourly Average Wind Speed/(Date at 10m Level)</u>
Q1	42.9 MPH/(94/02/19)	28.2 MPH/(94/03/23)
Q2	39.5 MPH/(94/04/25)	26.3 MPH/(94/06/14)
SEM1	42.9 MPH/(94/02/19)	28.2 MPH/(94/03/23)

TEMPERATURE AT 10-METER LEVEL

	<u>Mean Hourly Average Temperature</u>	<u>Average Daily Maximum</u>	<u>Average Daily Minimum</u>
Q1	-0.5 Degrees Celsius	5.0 Degrees Celsius	-5.9 Degrees Celsius
Q2	18.0 Degrees Celsius	23.2 Degrees Celsius	12.7 Degrees Celsius
SEM1	8.7 Degrees Celsius	14.1 Degrees Celsius	3.4 Degrees Celsius

	<u>Maximum Temperature (Date)</u>	<u>Minimum Temperature (Date)</u>
Q1	26.7 Degrees Celsius (94/03/22)	-22.4 Degrees Celsius (94/02/09)
Q2	34.0 Degrees Celsius (94/06/20)	-3.2 Degrees Celsius (94/04/06)
SEM1	34.0 Degrees Celsius (94/06/20)	-22.4 Degrees Celsius (94/02/09)

PRECIPITATION

	<u>Total Precipitation</u>	<u>Maximum Daily Precipitation Total/(Date)</u>	<u>Maximum Hourly Precipitation Total/(Date)</u>
Q1	1.63 Inches	0.83 Inches (94/02/22)	0.13 Inches (94/02/22)
Q2	8.51 Inches	1.81 Inches (94/05/06)	0.60 Inches (94/06/23)
SEM1	10.14 Inches	1.81 Inches (94/05/06)	0.60 Inches (94/06/23)

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.

<u>Unstable Conditions</u>		<u>Neutral Conditions</u>	<u>Stable Conditions</u>
<u>Classes A-C</u>		<u>Class D</u>	<u>Classes E-G</u>
Q1	10%	56%	34%
Q2	17%	42%	41%
SEM1	14%	49%	37%

Table 1. Meteorological Data Recovery

Data Recovery (% of total Observations)

	January- March 1994	April- June 1994	January- June 1994
100m wind speed	99.4	99.6	99.5
100m wind direction	99.4	99.6	99.5
100m ambient temperature	99.1	99.5	99.3
60m wind speed	99.3	99.6	99.4
60m wind direction	99.3	99.6	99.4
60m ambient temperature	99.1	99.5	99.3
10m wind speed	99.3	99.5	99.4
10m direction	99.4	99.5	99.4
10m ambient temperature	99.1	97.5	98.3
10m dew point	97.2	99.1	98.2
100m-10m delta T	99.1	97.5	98.3
100m-60m delta T	99.1	99.5	99.3
60m-10m delta T	99.1	97.5	98.3
Precipitation	100.0	100.0	100.0
100m JFD	99.1	97.5	98.3
10m JFD	99.1	97.5	98.3

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

MONTHLY SUMMARY TABLES OF HOURLY METEOROLOGICAL 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, 1994. 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

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NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1994

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/94 TO 3/31/94

JANUARY

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG C)	OBS	(DEG C)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG C)
1	31.	-6.5	30.	-10.2	30.	76.2	30.	2.8	30.	-7.4
2	31.	-6.6	29.	-10.9	29.	75.6	29.	2.6	29.	-8.0
3	31.	-6.7	28.	-11.5	28.	75.0	28.	2.5	28.	-8.6
4	31.	-6.8	28.	-11.4	28.	76.3	28.	2.5	28.	-8.7
5	31.	-7.1	26.	-12.4	26.	75.2	26.	2.3	26.	-9.5
6	31.	-7.2	26.	-12.5	26.	75.3	26.	2.2	26.	-9.6
7	31.	-7.2	26.	-12.7	26.	75.0	26.	2.2	26.	-9.8
8	31.	-7.4	26.	-12.9	26.	74.7	26.	2.2	26.	-10.0
9	31.	-7.2	27.	-12.2	27.	75.1	27.	2.3	27.	-9.4
10	30.	-6.3	26.	-11.4	26.	74.6	26.	2.4	26.	-8.5
11	31.	-5.7	29.	-10.4	29.	73.5	29.	2.6	29.	-7.3
12	31.	-5.1	30.	-9.8	30.	72.0	30.	2.7	30.	-6.6
13	31.	-4.2	31.	-9.1	31.	69.8	31.	2.9	31.	-5.6
14	30.	-3.5	30.	-9.2	30.	65.4	30.	2.8	30.	-5.2
15	31.	-2.8	31.	-8.9	31.	63.7	31.	2.9	31.	-4.6
16	31.	-2.5	31.	-9.1	31.	61.7	31.	2.8	31.	-4.5
17	31.	-2.8	31.	-9.4	31.	61.5	31.	2.8	31.	-4.7
18	31.	-3.6	31.	-9.8	31.	63.4	31.	2.7	31.	-5.4
19	31.	-4.6	31.	-10.1	31.	66.2	31.	2.7	31.	-6.1
20	31.	-5.2	31.	-10.2	31.	68.3	31.	2.7	31.	-6.5
21	31.	-5.6	31.	-10.2	31.	70.5	31.	2.7	31.	-6.8
22	31.	-6.2	31.	-10.3	31.	73.2	31.	2.7	31.	-7.2
23	31.	-6.5	31.	-10.3	31.	75.1	31.	2.7	31.	-7.4
24	31.	-6.7	30.	-10.5	30.	75.6	30.	2.7	30.	-7.6
HOURLY MEAN		-5.6	-10.6		71.2		2.6		-7.2	
AVG DAILY MAX		-0.9	-5.8		85.4		3.6		-2.7	
AVG DAILY MIN		-10.3	-14.2		59.2		2.0		-11.0	
ABSOLUTE MAX		12.3	7.5		99.3		8.0		7.6	
ABSOLUTE MIN		-20.3	-28.4		34.6		0.5		-20.9	
TOTAL OBS		742	701		701		701		701	

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NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1994

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/94 TO 3/31/94

FEBRUARY

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	28.	-4.4	28.	-9.7	28.	68.1	28.	2.7	28.	-6.0
2	28.	-4.8	28.	-9.8	28.	69.6	28.	2.7	28.	-6.3
3	28.	-5.3	28.	-10.1	28.	70.5	28.	2.6	28.	-6.8
4	28.	-5.7	28.	-10.3	28.	71.1	28.	2.6	28.	-7.1
5	28.	-6.0	28.	-10.5	28.	71.7	28.	2.6	28.	-7.4
6	28.	-6.3	28.	-10.7	28.	72.1	28.	2.5	28.	-7.6
7	28.	-6.5	28.	-10.9	28.	72.3	28.	2.5	28.	-7.8
8	28.	-6.6	28.	-10.8	28.	72.8	28.	2.5	28.	-7.8
9	28.	-5.9	28.	-10.4	28.	71.9	28.	2.6	28.	-7.2
10	28.	-4.6	28.	-9.6	28.	69.1	28.	2.8	28.	-6.1
11	28.	-3.0	28.	-9.1	28.	64.5	28.	2.9	28.	-4.9
12	28.	-1.5	28.	-5.6	28.	60.6	28.	2.9	28.	-3.9
13	28.	-0.3	28.	-8.4	28.	57.2	28.	2.9	28.	-3.1
14	26.	0.5	26.	-8.7	26.	53.7	26.	2.8	26.	-2.7
15	27.	0.9	27.	-8.6	27.	52.8	27.	2.8	27.	-2.4
16	26.	1.4	26.	-8.5	26.	52.0	26.	2.8	26.	-2.1
17	28.	1.2	28.	-8.2	28.	53.8	28.	2.9	28.	-2.1
18	28.	0.5	28.	-8.4	28.	55.4	28.	2.8	28.	-2.6
19	28.	-0.6	28.	-8.4	28.	58.7	28.	2.9	28.	-3.3
20	28.	-1.4	28.	-8.5	28.	61.0	28.	2.8	28.	-3.8
21	27.	-2.5	27.	-9.0	27.	63.3	27.	2.8	27.	-4.6
22	25.	-3.3	25.	-9.4	25.	64.5	25.	2.7	25.	-5.3
23	25.	-3.7	25.	-9.6	25.	65.7	25.	2.6	25.	-5.6
24	25.	-4.2	25.	-9.6	25.	67.4	25.	2.7	25.	-5.9
HOURLY MEAN		-3.0		-9.4		64.2		2.7		-5.1
AVG DAILY MAX		2.3		-5.7		78.8		3.5		-1.1
AVG DAILY MIN		-8.3		-12.9		48.9		2.1		-9.4
ABSOLUTE MAX		18.6		11.9		99.3		10.5		13.4
ABSOLUTE MIN		-22.4		-26.9		21.1		0.6		-22.8
TOTAL OBS	657		657		657		657		657	

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NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1994

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/94 TO 3/31/94

MARCH

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG C)	OBS	(DEG C)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG C)
1	31.	3.8	31.	-2.6	31.	64.8	31.	4.1	31.	1.3
2	31.	3.3	31.	-2.7	31.	66.5	31.	4.0	31.	0.9
3	31.	2.9	31.	-2.8	31.	68.0	31.	4.0	31.	0.6
4	30.	2.7	30.	-2.9	30.	68.6	30.	4.0	30.	0.5
5	31.	2.3	31.	-3.1	31.	69.1	31.	3.9	31.	0.2
6	31.	2.0	31.	-3.3	31.	69.8	31.	3.9	31.	-0.1
7	31.	1.7	31.	-3.3	31.	70.7	31.	3.9	31.	-0.3
8	31.	2.3	31.	-3.0	31.	70.1	31.	4.0	31.	0.2
9	31.	4.1	31.	-2.3	31.	65.0	31.	4.2	31.	1.5
10	31.	6.1	31.	-2.0	31.	58.1	31.	4.3	31.	2.7
11	31.	7.8	31.	-1.8	31.	53.0	31.	4.3	31.	3.8
12	31.	9.2	31.	-1.6	31.	49.7	31.	4.4	31.	4.6
13	31.	10.4	31.	-1.4	31.	46.5	31.	4.4	31.	5.3
14	31.	11.3	31.	-1.3	31.	43.8	31.	4.4	31.	5.8
15	31.	11.9	31.	-1.5	31.	41.3	31.	4.4	31.	6.1
16	31.	12.4	31.	-1.5	31.	40.6	31.	4.4	31.	6.3
17	31.	12.4	31.	-1.6	31.	40.3	31.	4.4	31.	6.3
18	30.	11.9	30.	-1.8	30.	41.3	30.	4.3	30.	5.9
19	31.	10.4	31.	-2.0	31.	44.8	31.	4.3	31.	5.1
20	31.	8.7	31.	-1.9	31.	49.7	31.	4.3	31.	4.2
21	31.	7.3	31.	-2.1	31.	53.5	31.	4.3	31.	3.5
22	31.	6.3	31.	-2.3	31.	56.1	31.	4.2	31.	2.9
23	31.	5.5	31.	-2.4	31.	58.9	31.	4.2	31.	2.4
24	31.	4.7	31.	-2.5	31.	61.6	31.	4.1	31.	1.8
HOURLY MEAN		6.7		-2.2		56.3		4.2		3.0
AVG DAILY MAX		13.2		1.1		75.5		5.3		6.9
AVG DAILY MIN		0.6		-5.4		37.7		3.3		-1.2
ABSOLUTE MAX		26.7		8.8		97.1		8.4		14.9
ABSOLUTE MIN		-5.3		-10.1		19.0		2.2		-6.2
TOTAL OBS		742		742		742		742		742

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NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1994

JAN-MAR HOUR AVERAGES FOR THE PERIOD 1/ 1/94 TO 3/31/94

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	90.	-2.3	89.	-7.4	89.	69.7	89.	3.2	89.	-3.9
2	90.	-2.6	88.	-7.7	88.	70.5	88.	3.1	88.	-4.3
3	90.	-3.0	87.	-8.0	87.	71.1	87.	3.1	87.	-4.7
4	89.	-3.3	86.	-8.1	86.	71.9	86.	3.0	86.	-5.0
5	90.	-3.5	85.	-8.4	85.	71.8	85.	3.0	85.	-5.3
6	90.	-3.8	85.	-8.5	85.	72.2	85.	2.9	85.	-5.5
7	90.	-3.9	85.	-8.7	85.	72.5	85.	2.9	85.	-5.6
8	90.	-3.8	85.	-8.6	85.	72.4	85.	2.9	85.	-5.5
9	90.	-2.9	86.	-8.0	86.	70.4	86.	3.1	86.	-4.7
10	89.	-1.4	85.	-7.4	85.	66.8	85.	3.2	85.	-3.6
11	90.	-0.2	88.	-7.0	88.	63.4	88.	3.3	88.	-2.7
12	90.	0.9	89.	-6.6	89.	60.6	89.	3.3	89.	-1.8
13	90.	2.0	90.	-6.2	90.	57.9	90.	3.4	90.	-1.0
14	87.	3.0	87.	-6.3	87.	54.2	87.	3.4	87.	-0.5
15	89.	3.5	89.	-6.3	89.	52.6	89.	3.4	89.	-0.2
16	88.	3.9	88.	-6.3	88.	51.4	88.	3.4	88.	0.0
17	90.	3.7	90.	-6.3	90.	51.8	90.	3.4	90.	-0.1
18	89.	2.9	89.	-6.6	89.	53.4	89.	3.3	89.	-0.7
19	90.	1.8	90.	-6.8	90.	56.5	90.	3.3	90.	-1.3
20	90.	0.8	90.	-6.8	90.	59.6	90.	3.3	90.	-1.9
21	89.	-0.2	89.	-7.0	89.	62.4	89.	3.3	89.	-2.6
22	87.	-0.9	87.	-7.2	87.	64.6	87.	3.2	87.	-3.0
23	87.	-1.4	87.	-7.3	87.	66.6	87.	3.2	87.	-3.4
24	87.	-1.9	86.	-7.4	86.	68.2	86.	3.2	86.	-3.7
HOURLY MEAN		-0.5		-7.3		63.8		3.2		-2.9
AVG DAILY MAX		5.0		-3.4		79.9		4.2		1.1
AVG DAILY MIN		-5.9		-10.8		48.6		2.5		-7.1
ABSOLUTE MAX		26.7		11.9		99.3		10.5		14.9
ABSOLUTE MIN		-22.4		-28.4		19.0		0.5		-22.8
TOTAL OBS		2141		2100		2100		2100		2100

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 1994

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/94 TO 6/30/94

APRIL

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG C)	OBS	(DEG C)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG C)
1	29.	9.4	30.	1.3	29.	59.8	29.	5.6	29.	5.9
2	29.	9.0	30.	1.3	29.	61.3	29.	5.6	29.	5.7
3	29.	8.4	30.	1.3	29.	63.6	29.	5.6	29.	5.3
4	29.	8.0	30.	0.9	29.	63.7	29.	5.4	29.	5.0
5	29.	7.7	30.	0.6	29.	64.0	29.	5.3	29.	4.7
6	29.	7.3	30.	0.5	29.	64.7	29.	5.3	29.	4.5
7	29.	7.3	29.	0.4	28.	64.7	28.	5.3	28.	4.4
8	28.	8.2	28.	0.9	27.	65.0	27.	5.4	27.	5.1
9	28.	9.9	28.	1.3	27.	58.2	27.	5.5	27.	6.1
10	29.	11.6	28.	1.6	28.	53.0	28.	5.6	28.	7.0
11	27.	12.1	28.	1.6	26.	48.8	26.	5.1	26.	6.9
12	26.	13.0	28.	1.7	25.	46.0	25.	5.0	25.	7.2
13	26.	13.7	28.	1.7	25.	44.2	25.	5.0	25.	7.5
14	26.	14.4	28.	1.5	25.	42.2	25.	4.9	25.	7.8
15	27.	15.5	28.	1.3	26.	40.7	26.	5.1	26.	8.5
16	30.	16.8	30.	1.5	30.	40.3	30.	5.6	30.	9.5
17	30.	16.9	30.	1.6	30.	40.4	30.	5.6	30.	9.6
18	30.	16.5	30.	1.5	30.	41.0	30.	5.6	30.	9.4
19	30.	15.5	30.	1.6	30.	43.7	30.	5.7	30.	9.0
20	30.	13.9	30.	1.6	30.	47.1	30.	5.6	30.	8.2
21	30.	12.5	30.	1.7	30.	51.0	30.	5.7	30.	7.6
22	30.	11.5	30.	1.6	30.	53.9	30.	5.7	30.	7.0
23	30.	10.6	30.	1.7	30.	56.6	30.	5.7	30.	6.6
24	30.	9.9	30.	1.5	30.	58.4	30.	5.6	30.	6.2
HOURLY MEAN		11.7		1.3		53.0		5.5		6.9
AVG DAILY MAX		17.4		5.2		70.9		7.1		10.3
AVG DAILY MIN		6.3		-1.8		36.3		4.4		3.4
ABSOLUTE MAX		32.5		16.3		97.9		13.3		20.6
ABSOLUTE MIN		-3.2		-14.1		19.0		1.6		-5.2
TOTAL OBS		690		703		681		681		681

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 1994

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/94 TO 6/30/94

MAY

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	31.	15.6	31.	8.3	31.	63.3	31.	8.4	31.	11.7
2	31.	15.0	31.	8.1	31.	64.9	31.	8.3	31.	11.4
3	31.	14.5	31.	7.9	31.	66.0	31.	8.2	31.	11.1
4	31.	14.0	31.	7.8	31.	67.6	31.	8.2	31.	10.8
5	31.	13.5	31.	7.6	31.	68.8	31.	8.1	31.	10.5
6	31.	13.2	31.	7.6	31.	69.9	31.	8.1	31.	10.3
7	31.	14.0	31.	7.8	31.	67.3	31.	8.2	31.	10.8
8	31.	15.8	31.	8.1	31.	61.6	31.	8.3	31.	11.7
9	31.	17.7	31.	8.2	31.	55.1	31.	8.4	31.	12.6
10	30.	19.3	31.	8.0	30.	49.6	30.	8.2	30.	13.2
11	30.	20.5	31.	7.9	30.	46.2	30.	8.1	30.	13.7
12	29.	21.3	31.	7.9	29.	43.5	29.	7.9	29.	13.8
13	28.	22.0	31.	7.7	28.	41.9	28.	7.9	28.	14.1
14	28.	22.5	31.	7.6	28.	40.4	28.	7.8	28.	14.2
15	28.	22.6	31.	7.8	28.	40.2	28.	7.8	28.	14.3
16	29.	23.0	31.	7.8	29.	40.6	29.	8.0	29.	14.6
17	31.	23.6	31.	7.8	31.	39.4	31.	8.0	31.	14.9
18	31.	25.5	31.	7.6	31.	39.1	31.	8.0	31.	14.8
19	31.	22.8	31.	7.8	31.	40.9	31.	8.0	31.	14.5
20	31.	21.2	31.	8.0	31.	45.2	31.	8.2	31.	14.0
21	30.	19.6	30.	8.2	30.	49.9	30.	8.3	30.	13.4
22	30.	18.4	30.	8.4	30.	53.9	30.	8.4	30.	13.0
23	30.	17.6	30.	8.5	30.	57.0	30.	8.5	30.	12.7
24	31.	16.9	31.	8.7	31.	59.9	31.	8.6	31.	12.5
HOURLY MEAN		18.6		8.0		53.2		8.2		12.8
AVG DAILY MAX		24.2		10.6		73.0		9.8		15.3
AVG DAILY MIN		12.8		5.5		36.5		6.9		9.9
ABSOLUTE MAX		32.3		17.3		91.6		14.3		20.8
ABSOLUTE MIN		1.9		-3.3		19.0		3.6		1.3
TOTAL OBS		726		741		726		726		726

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 1994

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/94 TO 6/30/94

JUNE

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	30.	21.2	30.	15.7	30.	71.6	30.	13.3	30.	17.8
2	30.	20.9	30.	15.3	30.	71.4	30.	13.0	30.	17.5
3	30.	20.5	30.	15.2	30.	72.1	30.	12.9	30.	17.3
4	30.	20.2	30.	15.0	30.	72.9	30.	12.8	30.	17.1
5	30.	19.8	30.	14.9	30.	74.1	30.	12.7	30.	16.9
6	30.	19.7	30.	14.9	30.	74.2	30.	12.7	30.	16.9
7	30.	20.3	30.	15.2	30.	73.2	30.	12.9	30.	17.2
8	30.	21.4	30.	15.5	30.	69.6	30.	13.1	30.	17.8
9	30.	22.4	30.	15.6	30.	66.1	30.	13.2	30.	18.2
10	30.	23.3	30.	15.6	30.	62.9	30.	13.1	30.	18.5
11	29.	24.1	30.	15.8	29.	60.8	29.	13.3	29.	18.9
12	29.	25.1	30.	15.8	29.	57.6	29.	13.3	29.	19.3
13	29.	25.8	30.	15.9	29.	55.5	29.	13.3	29.	19.6
14	29.	26.4	30.	15.8	29.	53.1	29.	13.2	29.	19.7
15	29.	27.0	30.	15.8	29.	51.3	29.	13.1	29.	19.9
16	29.	27.2	30.	15.9	29.	51.3	29.	13.2	29.	20.0
17	29.	27.1	30.	16.1	29.	52.1	29.	13.4	29.	20.1
18	30.	27.1	30.	16.3	30.	52.8	30.	13.6	30.	20.2
19	30.	26.5	30.	16.5	30.	55.3	30.	13.8	30.	20.1
20	30.	25.1	30.	16.6	30.	60.0	30.	13.9	30.	19.7
21	30.	23.9	30.	16.5	30.	63.8	30.	13.9	30.	19.2
22	30.	23.0	30.	16.2	30.	66.4	30.	13.7	30.	18.8
23	30.	22.3	30.	16.1	30.	68.4	30.	13.6	30.	18.4
24	30.	21.7	30.	16.0	30.	70.3	30.	13.5	30.	18.2
HOURLY MEAN		23.4		15.8		63.7		13.3		18.6
AVG DAILY MAX		28.0		17.8		77.5		15.0		20.8
AVG DAILY MIN		19.1		13.7		48.2		11.7		16.2
ABSOLUTE MAX		34.0		21.8		87.3		18.6		24.9
ABSOLUTE MIN		12.5		7.6		34.6		7.9		10.1
TOTAL OBS		713		720		713		713		713

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 1994

APR-JUN HOUR AVERAGES FOR THE PERIOD 4/ 1/94 TO 6/30/94

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER OBS	(DEG C)	NUMBER OBS	(DEG C)	NUMBER OBS	(%)	NUMBER OBS	(GM/M3)	NUMBER OBS	(DEG C)
1	90.	15.5	91.	8.4	90.	65.0	90.	9.2	90.	11.9
2	90.	15.0	91.	8.3	90.	65.9	90.	9.0	90.	11.6
3	90.	14.5	91.	8.1	90.	67.3	90.	8.9	90.	11.3
4	90.	14.1	91.	7.9	90.	68.1	90.	8.8	90.	11.0
5	90.	13.7	91.	7.7	90.	69.0	90.	8.8	90.	10.8
6	90.	13.5	91.	7.7	90.	69.6	90.	8.7	90.	10.6
7	90.	13.9	90.	7.9	89.	68.5	89.	8.9	89.	10.9
8	89.	15.3	89.	8.3	88.	64.7	88.	9.1	88.	11.7
9	89.	16.9	89.	8.5	88.	59.8	88.	9.1	88.	12.5
10	89.	18.1	89.	8.6	88.	55.2	88.	9.0	88.	13.0
11	86.	19.1	89.	8.6	85.	52.0	85.	9.0	85.	13.4
12	84.	20.0	89.	8.6	83.	49.2	83.	8.9	83.	13.7
13	83.	20.7	89.	8.6	82.	47.4	82.	8.9	82.	14.0
14	83.	21.3	89.	8.4	82.	45.5	82.	8.8	82.	14.2
15	84.	21.9	89.	8.4	83.	44.2	83.	8.8	83.	14.4
16	88.	22.3	91.	8.4	88.	44.0	88.	8.9	88.	14.6
17	90.	22.5	91.	8.5	90.	43.8	90.	8.9	90.	14.8
18	91.	22.4	91.	8.5	91.	44.2	91.	9.0	91.	14.8
19	91.	21.6	91.	8.6	91.	46.5	91.	9.1	91.	14.5
20	91.	20.1	91.	8.7	91.	50.7	91.	9.2	91.	14.0
21	90.	18.7	90.	8.8	90.	54.9	90.	9.3	90.	13.4
22	90.	17.6	90.	8.8	90.	58.0	90.	9.3	90.	13.0
23	90.	16.9	90.	8.8	90.	60.7	90.	9.3	90.	12.6
24	91.	16.2	91.	8.7	91.	62.8	91.	9.2	91.	12.3
HOURLY MEAN		18.0		8.4		56.7		9.0		12.9
AVG DAILY MAX		23.2		11.2		73.8		10.6		15.5
AVG DAILY MIN		12.7		5.8		40.3		7.6		9.8
ABSOLUTE MAX		34.0		21.8		97.9		18.6		24.9
ABSOLUTE MIN		-3.2		-14.1		19.0		1.6		-5.2
TOTAL OBS		2129		2164		2120		2120		2120

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-JUN 1994

JAN-JUN HOUR AVERAGES FOR THE PERIOD 1/ 1/94 TO 6/30/94

10.0 METERS LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG C)	OBS	(DEG C)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG C)
1	180.	6.6	180.	0.6	179.	67.3	179.	6.2	179.	4.0
2	180.	6.2	179.	0.4	178.	68.2	178.	6.1	178.	3.7
3	180.	5.8	178.	0.2	177.	69.1	177.	6.1	177.	3.4
4	179.	5.5	177.	0.1	176.	70.0	176.	6.0	176.	3.2
5	180.	5.1	176.	-0.1	175.	70.4	175.	5.9	175.	3.0
6	180.	4.9	176.	-0.2	175.	70.9	175.	5.9	175.	2.8
7	180.	5.0	175.	-0.2	174.	70.5	174.	6.0	174.	2.8
8	179.	5.7	174.	0.1	173.	68.5	173.	6.1	173.	3.3
9	179.	6.9	175.	0.4	174.	65.0	174.	6.1	174.	4.0
10	178.	8.3	174.	0.8	173.	60.9	173.	6.2	173.	4.9
11	176.	9.2	177.	0.9	173.	57.8	173.	6.1	173.	5.2
12	174.	10.2	178.	1.0	172.	55.1	172.	6.0	172.	5.7
13	173.	11.0	179.	1.1	172.	52.9	172.	6.0	172.	6.1
14	170.	11.9	176.	1.2	169.	50.0	169.	6.0	169.	6.6
15	173.	12.4	178.	1.1	172.	48.6	172.	6.0	172.	6.9
16	176.	13.1	179.	1.2	176.	47.7	176.	6.1	176.	7.3
17	180.	13.1	181.	1.1	180.	47.8	180.	6.2	180.	7.3
18	180.	12.7	180.	1.0	180.	48.8	180.	6.2	180.	7.1
19	181.	11.8	181.	1.0	181.	51.5	181.	6.2	181.	6.7
20	181.	10.5	181.	1.0	181.	55.1	181.	6.3	181.	6.1
21	179.	9.3	179.	0.9	179.	58.6	179.	6.3	179.	5.5
22	177.	8.5	177.	0.9	177.	61.3	177.	6.3	177.	5.1
23	177.	7.9	177.	0.9	177.	63.6	177.	6.3	177.	4.7
24	178.	7.3	177.	0.9	177.	65.4	177.	6.3	177.	4.5
HOURLY MEAN		8.7		0.7		60.2		6.1		5.0
AVG DAILY MAX		14.1		3.9		76.9		7.4		8.3
AVG DAILY MIN		3.4		-2.5		44.4		5.1		1.4
ABSOLUTE MAX		34.0		21.8		99.3		18.6		24.9
ABSOLUTE MIN		-22.4		-28.4		19.0		0.5		-22.8
TOTAL OBS		4270		4264		4220		4220		4220

Wind Direction Frequencies

10-Meter Level

MPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION JAN-MAR 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JANUARY

HR. OF DAY	WIND DIRECTION																CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1	9.7	3.2	3.2	6.5	6.5	9.7	0.0	16.1	3.2	6.5	0.0	6.5	0.0	3.2	6.5	19.4	0.0	100.
2	9.7	6.5	6.5	0.0	6.5	3.2	9.7	12.9	6.5	3.2	0.0	0.0	3.2	3.2	9.7	19.4	0.0	100.
3	12.9	0.0	3.2	0.0	6.5	3.2	9.7	12.9	12.9	0.0	0.0	0.0	0.0	6.5	12.9	19.4	0.0	100.
4	9.7	0.0	3.2	3.2	0.0	3.2	12.9	9.7	12.9	3.2	0.0	0.0	3.2	3.2	9.7	25.8	0.0	100.
5	9.7	0.0	3.2	3.2	0.0	3.2	16.1	6.5	6.5	9.7	0.0	0.0	3.2	0.0	16.1	22.6	0.0	100.
6	9.7	0.0	0.0	6.5	0.0	0.0	12.9	9.7	9.7	9.7	3.2	0.0	0.0	0.0	19.4	19.4	0.0	100.
7	3.2	6.5	0.0	3.2	3.2	3.2	6.5	9.7	9.7	12.9	3.2	0.0	0.0	3.2	16.1	19.4	0.0	100.
8	6.5	6.5	0.0	3.2	3.2	3.2	6.5	6.5	9.7	12.9	6.5	0.0	0.0	6.5	12.9	16.1	0.0	100.
9	0.0	9.7	0.0	3.2	0.0	3.2	6.5	6.5	12.9	6.5	6.5	0.0	0.0	6.5	16.1	22.6	0.0	100.
10	10.0	0.0	3.3	3.3	0.0	6.7	3.3	3.3	13.3	6.7	6.7	0.0	3.3	3.3	20.0	16.7	0.0	100.
11	6.5	0.0	0.0	9.7	0.0	0.0	6.5	3.2	16.1	3.2	6.5	3.2	3.2	6.5	12.9	22.6	0.0	100.
12	6.5	3.2	0.0	3.2	3.2	6.5	3.2	3.2	6.5	12.9	6.5	0.0	6.5	6.5	12.9	19.4	0.0	100.
13	3.2	0.0	0.0	3.2	3.2	3.2	0.0	9.7	9.7	6.5	3.2	6.5	6.5	16.1	0.0	29.0	0.0	100.
14	6.7	0.0	6.7	0.0	0.0	6.7	0.0	3.3	0.0	20.0	3.3	6.7	6.7	13.3	6.7	20.0	0.0	100.
15	9.7	3.2	3.2	0.0	3.2	3.2	3.2	6.5	3.2	6.5	3.2	3.2	9.7	9.7	12.9	19.4	0.0	100.
16	6.5	3.2	0.0	0.0	3.2	6.5	6.5	6.5	0.0	6.5	3.2	0.0	6.5	9.7	16.1	25.8	0.0	100.
17	6.5	3.2	0.0	0.0	6.5	0.0	12.9	3.2	0.0	6.5	6.5	3.2	3.2	9.7	19.4	19.4	0.0	100.
18	6.5	6.5	0.0	0.0	6.5	3.2	9.7	3.2	6.5	3.2	6.5	3.2	0.0	6.5	12.9	25.8	0.0	100.
19	9.7	6.5	3.2	0.0	3.2	3.2	6.5	9.7	6.5	3.2	6.5	0.0	0.0	3.2	9.7	29.0	0.0	100.
20	3.2	6.5	3.2	0.0	3.2	0.0	6.5	19.4	9.7	6.5	3.2	0.0	3.2	0.0	6.5	29.0	0.0	100.
21	9.7	9.7	3.2	3.2	3.2	3.2	9.7	9.7	12.9	9.7	0.0	0.0	0.0	0.0	6.5	19.4	0.0	100.
22	9.7	9.7	6.5	0.0	6.5	3.2	9.7	19.4	6.5	0.0	3.2	0.0	0.0	0.0	9.7	16.1	0.0	100.
23	9.7	12.9	0.0	6.5	3.2	0.0	3.2	19.4	12.9	3.2	0.0	0.0	3.2	0.0	9.7	16.1	0.0	100.
24	12.9	0.0	3.2	3.2	6.5	9.7	6.5	12.9	9.7	3.2	0.0	3.2	0.0	0.0	16.1	12.9	0.0	100.
ALL	7.8	4.0	2.2	2.6	3.2	3.6	7.0	9.3	8.2	6.7	3.2	1.5	2.6	4.9	12.1	21.0	0.0	100.

NUMBER OF OBS = 742

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION JAN-MAR 1994

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	3.6	10.7	10.7	0.0	7.1	7.1	3.6	7.1	3.6	7.1	10.7	0.0	7.1	7.1	3.6	10.7	0.0	100.
2	7.1	7.1	3.6	3.6	7.1	3.6	10.7	0.0	10.7	3.6	7.1	7.1	3.6	3.6	3.6	17.9	0.0	100.
3	7.1	7.1	7.1	3.6	0.0	10.7	3.6	7.1	7.1	17.9	3.6	0.0	3.6	3.6	3.6	14.3	0.0	100.
4	14.3	7.1	3.6	0.0	0.0	10.7	3.6	7.1	10.7	7.1	3.6	7.1	7.1	0.0	7.1	10.7	0.0	100.
5	10.7	10.7	3.6	3.6	0.0	7.1	3.6	10.7	17.9	3.6	3.6	0.0	10.7	3.6	0.0	10.7	0.0	100.
6	14.3	7.1	0.0	3.6	3.6	0.0	7.1	7.1	17.9	7.1	3.6	3.6	0.0	10.7	10.7	3.6	0.0	100.
7	10.7	7.1	3.6	3.6	0.0	0.0	7.1	10.7	14.3	3.6	3.6	7.1	0.0	10.7	7.1	10.7	0.0	100.
8	14.3	10.7	0.0	3.6	0.0	0.0	7.1	10.7	14.3	7.1	0.0	0.0	7.1	3.6	10.7	10.7	0.0	100.
9	14.3	7.1	3.6	7.1	0.0	0.0	10.7	14.3	7.1	3.6	10.7	0.0	3.6	0.0	7.1	10.7	0.0	100.
10	10.7	7.1	0.0	7.1	3.6	10.7	3.6	0.0	17.9	10.7	0.0	3.6	3.6	3.6	0.0	17.9	0.0	100.
11	14.3	7.1	7.1	3.6	0.0	10.7	7.1	7.1	10.7	3.6	7.1	3.6	3.6	3.6	0.0	10.7	0.0	100.
12	14.3	3.6	3.6	3.6	3.6	3.6	14.3	3.6	3.6	7.1	7.1	3.6	7.1	7.1	0.0	14.3	0.0	100.
13	10.7	3.6	0.0	7.1	0.0	0.0	17.9	0.0	10.7	3.6	10.7	10.7	0.0	3.6	3.6	17.9	0.0	100.
14	7.7	3.8	3.8	0.0	0.0	3.8	19.2	7.7	0.0	7.7	3.8	11.5	0.0	7.7	3.8	19.2	0.0	100.
15	7.4	7.4	7.4	0.0	0.0	3.7	22.2	0.0	0.0	3.7	3.7	11.1	3.7	11.1	7.4	11.1	0.0	100.
16	11.5	3.8	3.8	3.8	0.0	7.7	15.4	0.0	0.0	3.8	3.8	11.5	3.8	0.0	19.2	11.5	0.0	100.
17	7.1	3.6	10.7	3.6	3.6	14.3	7.1	0.0	0.0	7.1	10.7	0.0	3.6	0.0	10.7	17.9	0.0	100.
18	7.1	3.6	7.1	14.3	3.6	10.7	7.1	0.0	7.1	3.6	7.1	0.0	0.0	0.0	17.9	10.7	0.0	100.
19	3.6	10.7	10.7	7.1	0.0	14.3	3.6	3.6	0.0	10.7	0.0	0.0	3.6	3.6	14.3	14.3	0.0	100.
20	7.1	10.7	10.7	7.1	0.0	10.7	7.1	0.0	3.6	14.3	0.0	0.0	0.0	0.0	17.9	10.7	0.0	100.
21	7.1	10.7	10.7	3.6	3.6	10.7	7.1	0.0	0.0	17.9	0.0	0.0	0.0	3.6	10.7	14.3	0.0	100.
22	7.7	11.5	11.5	3.8	7.7	7.7	0.0	3.8	7.7	11.5	3.8	0.0	0.0	0.0	11.5	11.5	0.0	100.
23	3.8	15.4	7.7	0.0	3.8	11.5	3.8	3.8	7.7	3.8	3.8	0.0	3.8	0.0	15.4	15.4	0.0	100.
24	11.5	19.2	3.8	0.0	11.5	0.0	0.0	3.8	3.8	7.7	7.7	0.0	11.5	0.0	11.5	7.7	0.0	100.
ALL	9.5	8.2	5.6	3.9	2.4	6.7	8.0	4.5	7.4	7.4	4.8	3.3	3.6	3.6	8.2	12.7	0.0	100.

NUMBER OF OBS = 661

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION JAN-MAR 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MARCH

HR. OF DAY	WIND DIRECTION																CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1	16.1	9.7	0.0	0.0	3.2	3.2	16.1	0.0	16.1	3.2	0.0	3.2	0.0	6.5	16.1	6.5	0.0	100.
2	19.4	0.0	3.2	0.0	3.2	3.2	9.7	6.5	16.1	0.0	6.5	6.5	0.0	3.2	19.4	3.2	0.0	100.
3	12.9	0.0	3.2	0.0	3.2	3.2	16.1	6.5	9.7	3.2	6.5	0.0	9.7	6.5	6.5	12.9	0.0	100.
4	9.7	0.0	3.2	3.2	0.0	3.2	6.5	12.9	9.7	3.2	6.5	0.0	6.5	16.1	6.5	12.9	0.0	100.
5	12.9	6.5	0.0	0.0	3.2	3.2	9.7	12.9	6.5	3.2	3.2	6.5	6.5	9.7	9.7	3.2	3.2	100.
6	22.6	6.5	0.0	3.2	0.0	0.0	12.9	6.5	6.5	6.5	6.5	6.5	3.2	6.5	6.5	6.5	0.0	100.
7	9.7	3.2	0.0	0.0	3.2	3.2	12.9	3.2	12.9	12.9	3.2	3.2	3.2	9.7	6.5	9.7	3.2	100.
8	9.7	6.5	6.5	0.0	3.2	3.2	9.7	12.9	9.7	3.2	3.2	0.0	3.2	12.9	12.9	3.2	0.0	100.
9	9.7	3.2	3.2	3.2	3.2	6.5	3.2	9.7	12.9	9.7	0.0	6.5	3.2	3.2	16.1	6.5	0.0	100.
10	9.7	6.5	3.2	3.2	3.2	0.0	9.7	6.5	6.5	6.5	3.2	9.7	6.5	3.2	12.9	9.7	0.0	100.
11	12.9	3.2	6.5	0.0	0.0	3.2	9.7	0.0	6.5	3.2	12.9	0.0	6.5	9.7	12.9	12.9	0.0	100.
12	9.7	6.5	0.0	0.0	0.0	0.0	9.7	3.2	3.2	6.5	9.7	0.0	12.9	0.0	16.1	22.6	0.0	100.
13	16.1	3.2	3.2	0.0	0.0	0.0	6.5	3.2	3.2	12.9	6.5	6.5	3.2	9.7	12.9	12.9	0.0	100.
14	16.1	3.2	0.0	0.0	0.0	0.0	3.2	9.7	6.5	6.5	12.9	0.0	3.2	9.7	9.7	19.4	0.0	100.
15	22.6	0.0	0.0	0.0	0.0	0.0	3.2	6.5	3.2	9.7	12.9	0.0	0.0	12.9	12.9	16.1	0.0	100.
16	12.9	0.0	0.0	0.0	0.0	0.0	3.2	6.5	6.5	6.5	12.9	3.2	3.2	6.5	3.2	35.5	0.0	100.
17	22.6	3.2	0.0	0.0	0.0	0.0	3.2	9.7	6.5	6.5	9.7	0.0	0.0	12.9	6.5	19.4	0.0	100.
18	13.3	3.3	0.0	0.0	0.0	0.0	10.0	6.7	6.7	6.7	10.0	3.3	6.7	6.7	3.3	23.3	0.0	100.
19	22.6	0.0	0.0	0.0	3.2	3.2	0.0	3.2	9.7	9.7	6.5	0.0	3.2	6.5	16.1	16.1	0.0	100.
20	22.6	6.5	3.2	0.0	0.0	0.0	9.7	3.2	12.9	0.0	3.2	0.0	0.0	0.0	16.1	22.6	0.0	100.
21	16.1	6.5	6.5	0.0	0.0	0.0	6.5	12.9	16.1	0.0	3.2	0.0	0.0	3.2	9.7	19.4	0.0	100.
22	25.8	0.0	3.2	3.2	0.0	3.2	9.7	9.7	19.4	0.0	0.0	0.0	0.0	0.0	9.7	16.1	0.0	100.
23	29.0	3.2	0.0	6.5	3.2	0.0	6.5	16.1	9.7	3.2	0.0	0.0	0.0	6.5	3.2	12.9	0.0	100.
24	16.1	3.2	0.0	0.0	3.2	3.2	16.1	6.5	9.7	9.7	0.0	0.0	0.0	3.2	16.1	12.9	0.0	100.
ALL	16.3	3.5	1.9	0.9	1.5	1.7	8.5	7.3	9.4	5.5	5.0	2.3	3.4	6.9	10.9	14.0	0.3	100.

NUMBER OF OBS = 743

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION JAN-MAR 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JAN-MAR

WIND DIRECTION																		
HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.0	7.8	4.4	2.2	5.6	6.7	6.7	7.8	7.8	5.6	3.3	3.3	2.2	5.6	8.9	12.2	0.0	100.
2	12.2	4.4	4.4	1.1	5.6	3.3	10.0	6.7	11.1	2.2	4.4	4.4	2.2	3.3	11.1	13.3	0.0	100.
3	11.1	2.2	4.4	1.1	3.3	5.6	10.0	8.9	10.0	6.7	3.3	0.0	4.4	5.6	7.8	15.6	0.0	100.
4	11.1	2.2	3.3	2.2	0.0	5.6	7.8	10.0	11.1	4.4	3.3	2.2	5.6	6.7	7.8	16.7	6.0	100.
5	11.1	5.6	2.2	2.2	1.1	4.4	10.0	10.0	10.0	5.6	2.2	2.2	6.7	4.4	8.9	12.2	1.1	100.
6	15.6	4.4	0.0	4.4	1.1	0.0	11.1	7.8	11.1	7.8	4.4	3.3	1.1	5.6	12.2	10.0	0.0	100.
7	7.8	5.6	1.1	2.2	2.2	2.2	8.9	7.8	12.2	10.0	3.3	3.3	1.1	7.8	10.0	13.3	1.1	100.
8	10.0	7.8	2.2	2.2	2.2	2.2	7.8	10.0	11.1	7.8	3.3	0.0	3.3	7.8	12.2	10.0	0.0	100.
9	7.8	6.7	2.2	4.4	1.1	3.3	6.7	10.0	11.1	6.7	5.6	2.2	2.2	3.3	13.3	13.3	0.0	100.
10	10.1	4.5	2.2	4.5	2.2	5.6	5.6	3.4	12.4	7.9	3.4	4.5	4.5	3.4	11.2	14.6	0.0	100.
11	11.1	3.3	4.4	4.4	0.0	4.4	7.8	3.3	11.1	3.3	8.9	2.2	4.4	6.7	8.9	15.6	0.0	100.
12	10.0	4.4	1.1	2.2	2.2	3.3	8.9	3.3	4.4	8.9	7.8	1.1	8.9	4.4	10.0	18.9	0.0	100.
13	10.0	2.2	1.1	3.3	1.1	1.1	7.8	4.4	7.8	7.8	6.7	7.8	3.3	10.0	5.6	20.0	0.0	100.
14	10.3	2.3	3.4	0.0	0.0	3.4	6.9	6.9	2.3	11.5	6.9	5.7	3.4	10.3	6.9	19.5	0.0	100.
15	13.5	3.4	3.4	0.0	1.1	2.2	9.0	4.5	2.2	6.7	6.7	4.5	4.5	11.2	11.2	15.7	0.0	100.
16	10.2	2.3	1.1	1.1	1.1	4.5	8.0	4.5	2.3	5.7	6.8	4.5	4.5	5.7	12.5	25.0	0.0	100.
17	12.2	3.3	3.3	1.1	3.3	4.4	7.8	4.4	2.2	6.7	8.9	1.1	2.2	7.8	12.2	18.9	0.0	100.
18	9.0	4.5	2.2	4.5	3.4	4.5	9.0	3.4	6.7	4.5	7.9	2.2	2.2	4.5	11.2	20.2	0.0	100.
19	12.2	5.6	4.4	2.2	2.2	6.7	3.3	5.6	5.6	7.8	4.4	0.0	2.2	4.4	13.3	20.0	0.0	100.
20	11.1	7.8	5.6	2.2	1.1	3.3	7.8	7.8	8.9	6.7	2.2	0.0	1.1	0.0	13.3	21.1	0.0	100.
21	11.1	8.9	6.7	2.2	2.2	4.4	7.8	7.8	10.0	8.9	1.1	0.0	0.0	2.2	8.9	17.8	0.0	100.
22	14.8	6.8	6.8	2.3	4.5	4.5	6.8	11.4	11.4	3.4	2.3	0.0	0.0	0.0	10.2	14.8	0.0	100.
23	14.8	10.2	2.3	4.5	3.4	3.4	4.5	13.6	10.2	3.4	1.1	0.0	2.3	2.3	9.1	14.8	0.0	100.
24	13.6	6.8	2.3	1.1	6.8	4.5	8.0	8.0	8.0	6.8	2.3	1.1	3.4	1.1	14.8	11.4	0.0	100.
ALL	11.3	5.1	3.1	2.4	2.4	3.9	7.8	7.1	8.4	6.5	4.6	2.3	3.2	5.2	10.5	16.0	0.1	100.

NUMBER OF OBS = 2146

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION APR-JUN 1994

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	20.0	6.7	6.7	3.3	3.3	0.0	6.7	16.7	16.7	3.3	0.0	3.3	0.0	6.7	6.7	0.0	0.0	100.
2	23.3	13.3	10.0	3.3	0.0	0.0	6.7	10.0	10.0	3.3	0.0	3.3	0.0	6.7	10.0	0.0	0.0	100.
3	16.7	20.0	3.3	3.3	0.0	3.3	3.3	6.7	20.0	3.3	0.0	0.0	3.3	3.3	13.3	0.0	0.0	100.
4	23.3	16.7	3.3	0.0	6.7	3.3	6.7	6.7	6.7	6.7	0.0	0.0	6.7	0.0	13.3	0.0	0.0	100.
5	16.7	10.0	0.0	3.3	6.7	0.0	6.7	6.7	3.3	10.0	3.3	0.0	3.3	3.3	10.0	16.7	0.0	100.
6	13.3	10.0	6.7	6.7	0.0	3.3	0.0	10.0	6.7	13.3	0.0	0.0	6.7	3.3	3.3	16.7	0.0	100.
7	23.3	6.7	3.3	3.3	6.7	0.0	0.0	10.0	13.3	10.0	6.7	0.0	6.7	0.0	0.0	10.0	0.0	100.
8	24.1	10.3	3.4	3.4	6.9	0.0	6.9	3.4	10.3	13.8	0.0	3.4	0.0	6.9	0.0	6.9	0.0	100.
9	17.2	6.9	10.3	3.4	6.9	3.4	6.9	0.0	10.3	10.3	6.9	0.0	3.4	3.4	0.0	10.3	0.0	100.
10	13.8	6.9	10.3	3.4	6.9	3.4	6.9	6.9	10.3	6.9	10.3	0.0	3.4	0.0	6.9	3.4	0.0	100.
11	13.8	6.9	6.9	6.9	3.4	6.9	3.4	6.9	10.3	10.3	6.9	3.4	0.0	6.9	3.4	3.4	0.0	100.
12	13.8	3.4	3.4	13.8	0.0	3.4	3.4	3.4	17.2	10.3	6.9	0.0	6.9	0.0	6.9	6.9	0.0	100.
13	13.8	0.0	3.4	13.8	0.0	0.0	6.9	3.4	17.2	6.9	3.4	3.4	6.9	3.4	13.8	3.4	0.0	100.
14	6.9	10.3	3.4	6.9	3.4	0.0	6.9	3.4	13.8	13.8	0.0	3.4	10.3	3.4	6.9	6.9	0.0	100.
15	3.3	13.3	0.0	10.0	3.3	0.0	6.7	6.7	13.3	13.3	0.0	3.3	10.0	3.3	6.7	6.7	0.0	100.
16	6.7	3.3	10.0	3.3	3.3	0.0	6.7	6.7	6.7	13.3	6.7	10.0	6.7	3.3	6.7	6.7	0.0	100.
17	6.7	6.7	0.0	6.7	6.7	0.0	6.7	6.7	6.7	10.0	13.3	6.7	3.3	6.7	6.7	6.7	0.0	100.
18	6.7	6.7	0.0	6.7	6.7	3.3	6.7	3.3	13.3	6.7	6.7	3.3	10.0	6.7	6.7	6.7	0.0	100.
19	6.7	3.3	6.7	3.3	6.7	3.3	6.7	0.0	16.7	3.3	10.0	6.7	0.0	13.3	6.7	6.7	0.0	100.
20	13.3	3.3	3.3	6.7	6.7	3.3	3.3	10.0	6.7	3.3	6.7	3.3	0.0	10.0	10.0	10.0	0.0	100.
21	6.7	10.0	0.0	10.0	6.7	3.3	6.7	10.0	6.7	3.3	3.3	3.3	0.0	10.0	13.3	6.7	0.0	100.
22	13.3	6.7	3.3	10.0	3.3	3.3	6.7	20.0	3.3	3.3	3.3	0.0	6.7	10.0	6.7	0.0	0.0	100.
23	20.0	3.3	3.3	3.3	6.7	0.0	3.3	13.3	13.3	3.3	0.0	3.3	3.3	10.0	10.0	3.3	0.0	100.
24	16.7	10.0	3.3	3.3	6.7	0.0	10.0	6.7	10.0	3.3	6.7	0.0	6.7	3.3	10.0	3.3	0.0	100.
ALL	14.2	8.1	4.3	5.8	4.5	1.8	5.6	7.4	10.9	7.7	4.2	2.5	4.3	5.2	7.4	5.9	0.0	100.

NUMBER OF OBS = 713

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION APR-JUN 1994

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	0.0	9.7	3.2	3.2	6.5	0.0	12.9	9.7	19.4	9.7	3.2	0.0	3.2	0.0	6.5	12.9	0.0	100.
2	12.9	3.2	0.0	0.0	3.2	3.2	9.7	6.5	16.1	25.8	0.0	0.0	3.2	3.2	0.0	12.9	0.0	100.
3	19.4	6.5	0.0	0.0	0.0	6.5	3.2	9.7	22.6	6.5	12.9	3.2	0.0	0.0	0.0	9.7	0.0	100.
4	9.7	9.7	0.0	0.0	0.0	12.9	9.7	16.1	9.7	6.5	6.5	3.2	3.2	0.0	6.5	6.5	0.0	100.
5	9.7	3.2	6.5	0.0	0.0	6.5	9.7	19.4	16.1	9.7	9.7	3.2	0.0	0.0	3.2	3.2	0.0	100.
6	9.7	6.5	3.2	0.0	0.0	0.0	16.1	16.1	19.4	3.2	3.2	3.2	0.0	3.2	6.5	9.7	0.0	100.
7	12.9	6.5	0.0	0.0	0.0	9.7	9.7	29.0	9.7	6.5	6.5	0.0	0.0	3.2	0.0	6.5	0.0	100.
8	12.9	6.5	6.5	0.0	0.0	6.5	12.9	19.4	22.6	3.2	3.2	3.2	0.0	3.2	0.0	0.0	0.0	100.
9	6.5	6.5	3.2	0.0	0.0	3.2	12.9	16.1	25.8	9.7	3.2	0.0	0.0	3.2	3.2	6.5	0.0	100.
10	6.5	0.0	9.7	0.0	0.0	3.2	6.5	19.4	22.6	16.1	0.0	3.2	6.5	0.0	0.0	6.5	0.0	100.
11	6.5	0.0	3.2	6.5	0.0	0.0	9.7	16.1	25.8	9.7	3.2	3.2	6.5	3.2	3.2	3.2	0.0	100.
12	3.2	0.0	9.7	3.2	0.0	3.2	3.2	22.6	19.4	12.9	3.2	0.0	9.7	0.0	3.2	6.5	0.0	100.
13	9.7	3.2	3.2	6.5	0.0	0.0	12.9	22.6	12.9	12.9	3.2	0.0	6.5	3.2	3.2	0.0	0.0	100.
14	6.5	3.2	3.2	6.5	0.0	0.0	9.7	19.4	16.1	9.7	6.5	6.5	0.0	6.5	6.5	0.0	0.0	100.
15	6.5	3.2	3.2	3.2	3.2	0.0	6.5	22.6	16.1	9.7	6.5	0.0	3.2	6.5	3.2	6.5	0.0	100.
16	3.2	3.2	3.2	0.0	3.2	0.0	9.7	22.6	19.4	6.5	3.2	0.0	0.0	6.5	6.5	12.9	0.0	100.
17	3.2	3.2	3.2	0.0	6.5	0.0	6.5	32.3	9.7	9.7	3.2	0.0	0.0	0.0	9.7	12.9	0.0	100.
18	9.7	3.2	0.0	3.2	0.0	3.2	9.7	19.4	19.4	9.7	3.2	0.0	0.0	0.0	9.7	9.7	0.0	100.
19	6.5	6.5	0.0	3.2	0.0	3.2	16.1	12.9	16.1	12.9	3.2	0.0	3.2	0.0	9.7	6.5	9.0	100.
20	9.7	3.2	3.2	3.2	0.0	3.2	25.8	12.9	19.4	6.5	0.0	3.2	3.2	0.0	3.2	3.2	0.0	100.
21	6.7	0.0	0.0	3.3	3.3	6.7	10.0	20.0	23.3	10.0	0.0	0.0	3.3	0.0	3.3	10.0	0.0	100.
22	6.7	3.3	0.0	6.7	0.0	6.7	13.3	13.3	23.3	6.7	3.3	0.0	0.0	3.3	6.7	6.7	0.0	100.
23	6.7	3.3	3.3	3.3	0.0	0.0	20.0	16.7	10.0	13.3	0.0	0.0	0.0	0.0	10.0	10.0	3.3	100.
24	16.1	0.0	3.2	3.2	3.2	9.7	19.4	12.9	12.9	6.5	0.0	3.2	3.2	0.0	0.0	3.2	3.2	100.
ALL	8.4	3.9	3.0	2.3	1.2	3.6	11.5	17.8	17.8	9.7	3.6	1.5	2.3	1.9	4.3	6.9	0.3	100.

NUMBER OF OBS = 741

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION APR-JUN 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JUNE

HR. OF DAY	WIND DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
1	0.0	3.3	6.7	6.7	3.3	6.7	3.3	20.0	16.7	3.3	3.3	6.7	6.7	3.3	3.3	6.7	0.0
2	6.7	10.0	3.3	3.3	3.3	3.3	13.3	16.7	16.7	3.3	10.0	3.3	0.0	0.0	3.3	3.3	0.0
3	0.0	3.3	6.7	6.7	6.7	6.7	6.7	13.3	40.0	3.3	0.0	0.0	0.0	0.0	3.3	3.3	0.0
4	3.3	6.7	6.7	3.3	3.3	0.0	6.7	20.0	23.3	10.0	3.3	0.0	6.7	0.0	0.0	6.7	0.0
5	6.7	6.7	3.3	3.3	0.0	3.3	0.0	20.0	33.3	6.7	6.7	0.0	0.0	0.0	3.3	6.7	0.0
6	13.3	0.0	6.7	0.0	3.3	0.0	6.7	26.7	16.7	3.3	6.7	0.0	6.7	0.0	3.3	6.7	0.0
7	6.7	10.0	10.0	3.3	0.0	3.3	3.3	13.3	16.7	6.7	6.7	3.3	0.0	0.0	6.7	10.0	0.0
8	6.7	0.0	13.3	6.7	3.3	3.3	3.3	23.3	10.0	10.0	0.0	6.7	6.7	3.3	0.0	3.3	0.0
9	0.0	3.3	0.0	6.7	3.3	3.3	20.0	13.3	13.3	10.0	0.0	6.7	0.0	6.7	3.3	10.0	0.0
10	13.3	0.0	6.7	6.7	3.3	3.3	16.7	3.3	10.0	10.0	3.3	3.3	0.0	10.0	3.3	6.7	0.0
11	20.0	10.0	3.3	3.3	0.0	6.7	10.0	10.0	10.0	6.7	0.0	3.3	0.0	3.3	6.7	6.7	0.0
12	6.7	3.3	10.0	3.3	0.0	6.7	10.0	6.7	26.7	3.3	0.0	3.3	3.3	0.0	10.0	6.7	0.0
13	6.7	3.3	16.7	6.7	3.3	3.3	16.7	6.7	13.3	6.7	0.0	3.3	3.3	0.0	6.7	3.3	0.0
14	6.7	3.3	6.7	10.0	3.3	10.0	13.3	10.0	16.7	3.3	3.3	0.0	0.0	3.3	6.7	3.3	0.0
15	0.0	0.0	0.0	10.0	3.3	3.3	13.3	13.3	13.3	10.0	0.0	3.3	0.0	3.3	6.7	10.0	0.0
16	3.3	10.0	6.7	3.3	0.0	6.7	13.3	13.3	20.0	3.3	0.0	0.0	3.3	3.3	0.0	13.3	0.0
17	10.0	6.7	10.0	0.0	6.7	3.3	10.0	16.7	23.3	0.0	3.3	0.0	0.0	0.0	6.7	3.3	0.0
18	19.0	10.0	3.3	6.7	6.7	0.0	20.0	10.0	16.7	3.3	0.0	0.0	0.0	3.3	3.3	6.7	0.0
19	6.7	10.0	3.3	10.0	10.0	0.0	20.0	6.7	16.7	3.3	0.0	0.0	0.0	0.0	6.7	6.7	0.0
20	3.3	3.3	10.0	3.3	10.0	10.0	13.3	13.3	10.0	3.3	0.0	0.0	0.0	3.3	10.0	6.7	0.0
21	6.7	0.0	13.3	3.3	6.7	6.7	3.3	23.3	13.3	6.7	0.0	0.0	0.0	3.3	6.7	6.7	0.0
22	13.3	3.3	6.7	6.7	0.0	3.3	3.3	13.3	23.3	6.7	3.3	0.0	0.0	3.3	6.7	6.7	0.0
23	10.0	0.0	0.0	13.3	3.3	0.0	6.7	10.0	20.0	16.7	0.0	3.3	0.0	0.0	10.0	6.7	0.0
24	3.3	6.7	0.0	3.3	0.0	0.0	0.0	33.3	23.3	0.0	13.3	6.7	0.0	0.0	0.0	10.0	0.0
ALL	6.8	4.7	6.8	5.4	3.5	3.9	9.7	14.9	18.5	5.8	2.6	2.2	1.5	2.1	4.9	6.7	0.0

NUMBER OF OBS = 720

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION APR-JUN 1994

PROGRAM: WINPER

VERSION: 2P

HOURLY WIND ROSES (PERCENT)

APR-JUN

HR. OF DAY	WIND DIRECTION																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	
1	6.6	6.6	5.5	4.4	4.4	2.2	7.7	15.4	17.6	5.5	2.2	3.3	3.3	3.3	5.5	6.6	0.0	100.
2	14.3	8.8	4.4	2.2	2.2	2.2	9.9	11.0	14.3	11.0	3.3	2.2	1.1	3.3	4.4	5.5	0.0	100.
3	12.1	9.9	3.3	3.3	2.2	5.5	4.4	9.9	27.5	4.4	4.4	1.1	1.1	1.1	5.5	4.4	0.0	100.
4	12.1	11.0	3.3	1.1	3.3	5.5	7.7	14.3	13.2	7.7	3.3	1.1	5.5	0.0	6.6	4.4	0.0	100.
5	11.0	6.6	3.3	2.2	2.2	3.3	5.5	15.4	17.6	8.8	6.6	1.1	1.1	1.1	5.5	8.8	0.0	100.
6	12.1	5.5	5.5	2.2	1.1	1.1	7.7	17.6	14.3	6.6	3.3	1.1	4.4	2.2	4.4	11.0	0.0	100.
7	14.3	7.7	4.4	2.2	2.2	4.4	4.4	17.6	13.2	7.7	6.6	1.1	2.2	1.1	2.2	8.8	0.0	100.
8	14.4	5.6	7.8	3.3	3.3	3.3	7.8	15.6	14.4	8.9	1.1	4.4	2.2	4.4	0.0	3.3	0.0	100.
9	7.8	5.6	4.4	3.3	3.3	3.3	13.3	10.0	16.7	10.0	3.3	2.2	1.1	4.4	2.2	8.9	0.0	100.
10	11.1	2.2	8.9	3.3	3.3	3.3	10.0	10.0	14.4	11.1	4.4	2.2	3.3	3.3	3.3	5.6	0.0	100.
11	13.3	5.6	4.4	5.6	1.1	4.4	7.8	11.1	15.6	8.9	3.3	3.3	2.2	4.4	4.4	4.4	0.0	100.
12	7.8	2.2	7.8	6.7	0.0	4.4	5.6	11.1	21.1	8.9	3.3	1.1	6.7	0.0	6.7	6.7	0.0	100.
13	10.0	2.2	7.8	8.9	1.1	1.1	12.2	11.1	14.4	8.9	2.2	2.2	5.6	2.2	7.8	2.2	0.0	100.
14	6.7	5.6	4.4	7.8	2.2	3.3	10.0	11.1	15.6	8.9	3.3	3.3	3.3	4.4	6.7	3.3	0.0	100.
15	3.3	5.5	4.4	7.7	3.3	1.1	8.8	14.3	14.3	11.0	2.2	2.2	4.4	4.4	5.5	7.7	0.0	100.
16	4.4	5.5	6.6	2.2	2.2	2.2	9.9	14.3	15.4	7.7	3.3	3.3	3.3	4.4	4.4	11.0	0.0	100.
17	6.6	5.5	4.4	2.2	6.6	1.1	7.7	18.7	13.2	6.6	6.6	2.2	1.1	2.2	7.7	7.7	0.0	100.
18	8.8	6.6	1.1	5.5	4.4	2.2	12.1	11.0	16.5	6.6	3.3	1.1	3.3	3.3	6.6	7.7	0.0	100.
19	6.6	6.6	3.3	5.5	5.5	2.2	14.3	6.6	16.5	6.6	4.4	2.2	1.1	4.4	7.7	6.6	0.0	100.
20	8.8	3.3	5.5	4.4	5.5	5.5	14.3	12.1	12.1	4.4	2.2	2.2	1.1	4.4	7.7	6.6	0.0	100.
21	6.7	3.3	4.4	5.6	5.6	5.6	6.7	17.8	14.4	6.7	1.1	1.1	1.1	4.4	7.8	7.8	0.0	100.
22	11.1	4.4	3.3	7.8	1.1	4.4	7.8	15.6	16.7	7.6	3.3	0.0	2.2	5.6	6.7	4.4	0.0	100.
23	12.2	2.2	2.2	6.7	3.3	0.0	10.0	13.3	14.4	11.1	0.0	2.2	1.1	3.3	10.0	6.7	1.1	100.
24	12.1	5.5	2.2	3.3	3.3	3.3	9.9	17.6	15.4	3.3	6.6	3.3	3.3	1.1	3.3	5.5	1.1	100.
ALL	9.8	5.6	4.7	4.5	3.0	3.1	9.0	13.4	15.8	7.8	3.5	2.1	2.7	3.0	5.5	6.5	0.1	100.

NUMBER OF OBS = 2174

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION JAN-JUN 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JAN-JUN

HR. OF DAY	WIND DIRECTION																CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1	8.3	7.2	5.0	3.3	5.0	4.4	7.2	11.6	12.7	5.5	2.8	3.3	2.8	4.4	7.2	9.4	0.0	100.
2	13.3	6.6	4.4	1.7	3.9	2.8	9.9	8.8	12.7	6.6	3.9	3.3	1.7	3.3	7.7	9.4	0.0	100.
3	11.6	6.1	3.9	2.2	2.8	5.5	7.2	9.4	18.8	5.5	3.9	0.6	2.8	3.3	6.6	9.9	0.0	100.
4	11.6	6.6	3.3	1.7	1.7	5.5	7.7	12.2	12.2	6.1	3.3	1.7	5.5	3.3	7.2	10.5	0.0	100.
5	11.0	6.1	2.8	2.2	1.7	3.9	7.7	12.7	13.8	7.2	4.4	1.7	3.9	2.8	7.2	10.5	0.6	100.
6	13.8	5.0	2.8	3.3	1.1	0.6	9.4	12.7	12.7	7.2	3.9	2.2	2.8	3.9	8.3	10.5	0.0	100.
7	11.0	6.6	2.8	2.2	2.2	3.3	6.6	12.7	12.7	8.8	5.0	2.2	1.7	4.4	6.1	11.0	0.6	100.
8	12.2	6.7	5.0	2.8	2.8	2.8	7.8	12.8	12.8	8.3	2.2	2.2	2.8	6.1	6.1	6.7	0.0	100.
9	7.8	6.1	3.3	3.9	2.2	3.3	10.0	10.0	13.9	8.3	4.4	2.2	1.7	3.9	7.8	11.1	0.0	100.
10	10.6	3.4	5.6	3.9	2.8	4.5	7.8	6.7	13.4	9.5	3.9	3.4	3.9	3.4	7.3	10.1	0.0	100.
11	12.2	4.4	4.4	5.0	0.6	4.4	7.8	7.2	13.3	6.1	6.1	2.8	3.3	5.6	6.7	10.0	0.0	100.
12	8.9	3.3	4.4	4.4	1.1	3.9	7.2	7.2	12.8	8.9	5.6	1.1	7.8	2.2	8.3	12.8	0.0	100.
13	10.0	2.2	4.4	6.1	1.1	1.1	10.0	7.8	11.1	8.3	4.4	5.0	4.4	6.1	6.7	11.1	0.0	100.
14	8.5	4.0	4.0	4.0	1.1	3.4	8.5	9.0	9.0	10.2	5.1	4.5	3.4	7.3	6.8	11.3	0.0	100.
15	8.3	4.4	3.9	3.9	2.2	1.7	8.9	9.4	8.3	8.9	4.4	3.3	4.4	7.8	8.3	11.7	0.0	100.
16	7.3	3.9	3.9	1.7	1.7	3.4	8.9	9.5	8.9	6.7	5.0	3.9	3.9	5.0	8.4	17.9	0.0	100.
17	9.4	4.4	3.9	1.7	5.0	2.8	7.7	11.6	7.7	6.6	7.7	1.7	1.7	5.0	9.9	13.3	0.0	100.
18	8.9	5.6	1.7	5.0	3.9	3.3	10.6	7.2	11.7	5.6	5.6	1.7	2.8	3.9	8.9	13.9	0.0	100.
19	9.4	6.1	3.9	3.9	3.9	4.4	8.8	6.1	11.0	7.2	4.4	1.1	1.7	4.4	10.5	13.3	0.0	100.
20	9.9	5.5	5.5	3.3	3.3	4.4	11.0	9.9	10.5	5.5	2.2	1.1	1.1	2.2	10.5	13.8	0.0	100.
21	8.9	6.1	5.6	3.9	3.9	5.0	7.2	12.8	12.2	7.8	1.1	0.6	0.6	3.3	8.3	12.8	0.0	100.
22	12.9	5.6	5.1	5.1	2.8	4.5	7.3	13.5	14.0	4.5	2.8	0.0	1.1	2.8	8.4	9.6	0.0	100.
23	13.5	6.2	2.2	5.6	3.4	1.7	7.3	13.5	12.4	7.3	0.6	1.1	1.7	2.8	9.6	10.7	0.6	100.
24	12.8	6.1	2.2	2.2	5.0	3.9	8.9	12.8	11.7	5.0	4.5	2.2	3.4	1.1	8.9	8.4	0.6	100.
ALL	10.5	5.3	3.9	3.4	2.7	3.5	8.4	10.3	12.1	7.2	4.1	2.2	2.9	4.1	8.0	11.2	0.1	100.

NUMBER OF OBS = 4320

Wind Direction Frequencies

100-Meter Level

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION JAN-MAR 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JANUARY

HR. OF DAY	WIND DIRECTION																	CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW			
1	12.9	3.2	3.2	3.2	6.5	3.2	9.7	6.5	6.5	3.2	9.7	3.2	3.2	3.2	3.2	19.4	0.0	100.	
2	6.5	6.5	3.2	3.2	6.5	0.0	9.7	9.7	6.5	3.2	6.5	3.2	0.0	6.5	9.7	19.4	0.0	100.	
3	6.5	6.5	3.2	0.0	6.5	0.0	12.9	9.7	3.2	9.7	6.5	0.0	0.0	3.2	12.9	19.4	0.0	100.	
4	12.9	0.0	3.2	0.0	3.2	9.7	3.2	12.9	3.2	6.5	6.5	3.2	0.0	0.0	16.1	19.4	0.0	100.	
5	12.9	3.2	0.0	3.2	3.2	3.2	6.5	9.7	9.7	3.2	9.7	0.0	0.0	3.2	19.4	12.9	0.0	100.	
6	12.9	3.2	0.0	3.2	3.2	0.0	6.5	12.9	9.7	0.0	12.9	0.0	0.0	3.2	16.1	16.1	0.0	100.	
7	3.2	6.5	0.0	3.2	0.0	6.5	3.2	9.7	9.7	3.2	12.9	0.0	3.2	0.0	16.1	22.6	0.0	100.	
8	9.7	3.2	0.0	3.2	0.0	6.5	0.0	12.9	6.5	6.5	9.7	6.5	0.0	3.2	16.1	16.1	0.0	100.	
9	3.2	6.5	0.0	3.2	0.0	3.2	3.2	9.7	9.7	6.5	6.5	3.2	0.0	9.7	9.7	25.8	0.0	100.	
10	20.0	0.0	3.3	0.0	3.3	3.3	6.7	3.3	13.3	3.3	6.7	3.3	6.7	0.0	6.7	6.7	0.0	100.	
11	6.5	0.0	0.0	3.2	3.2	3.2	6.5	3.2	12.9	6.5	6.5	3.2	3.2	3.2	16.1	22.6	0.0	100.	
12	9.7	0.0	0.0	3.2	6.5	0.0	3.2	6.5	3.2	12.9	6.5	3.2	6.5	6.5	12.9	19.4	0.0	100.	
13	9.7	0.0	0.0	3.2	3.2	3.2	3.2	6.5	6.5	9.7	3.2	6.5	6.5	12.9	3.2	22.6	0.0	100.	
14	10.0	3.3	3.3	0.0	0.0	3.3	3.3	6.7	0.0	13.3	6.7	6.7	6.7	13.3	6.7	16.7	0.0	100.	
15	12.9	0.0	6.5	0.0	3.2	3.2	3.2	3.2	6.5	6.5	3.2	0.0	12.9	3.2	16.1	19.4	0.0	100.	
16	6.5	3.2	3.2	0.0	3.2	3.2	9.7	6.5	0.0	3.2	6.5	0.0	6.5	9.7	12.9	25.8	0.0	100.	
17	3.2	6.5	0.0	0.0	0.0	6.5	9.7	9.7	0.0	3.2	6.5	3.2	3.2	6.5	19.4	22.6	0.0	100.	
18	9.7	3.2	3.2	0.0	0.0	6.5	6.5	12.9	0.0	6.5	9.7	0.0	0.0	6.5	9.7	25.8	0.0	100.	
19	16.1	3.2	3.2	3.2	3.2	3.2	6.5	12.9	6.5	3.2	6.5	0.0	0.0	6.5	6.5	19.4	0.0	100.	
20	6.5	6.5	0.0	6.5	3.2	0.0	9.7	16.1	6.5	6.5	3.2	0.0	6.5	0.0	3.2	25.8	0.0	100.	
21	6.5	9.7	0.0	0.0	6.5	0.0	19.4	9.7	9.7	6.5	3.2	3.2	0.0	0.0	6.5	19.4	0.0	100.	
22	9.7	6.5	3.2	3.2	3.2	3.2	12.9	9.7	12.9	6.5	0.0	6.5	0.0	0.0	3.2	19.4	0.0	100.	
23	6.5	6.5	0.0	6.5	3.2	3.2	12.9	9.7	6.5	3.2	6.5	6.5	3.2	0.0	9.7	16.1	0.0	100.	
24	12.9	3.2	0.0	3.2	9.7	0.0	12.9	12.9	3.2	6.5	3.2	3.2	3.2	0.0	9.7	16.1	0.0	100.	
ALL	9.4	3.8	1.6	2.3	3.4	3.1	7.5	9.3	6.3	5.8	6.6	2.7	3.0	4.2	11.5	19.5	0.0	100.	

NUMBER OF OBS = 742

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION JAN-MAR 1994

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	7.1	10.7	7.1	0.0	3.6	7.1	7.1	7.1	7.1	0.0	7.1	3.6	7.1	7.1	7.1	10.7	0.0	100.
2	7.1	7.1	3.6	3.6	3.6	7.1	7.1	10.7	3.6	0.0	3.6	10.7	7.1	3.6	7.1	14.3	0.0	100.
3	7.1	7.1	3.6	3.6	0.0	10.7	3.6	7.1	10.7	0.0	7.1	3.6	14.3	3.6	0.0	17.9	0.0	100.
4	7.1	10.7	0.0	7.1	0.0	7.1	3.6	3.6	14.3	3.6	3.6	3.6	7.1	7.1	0.0	21.4	0.0	100.
5	7.1	10.7	0.0	3.6	3.6	7.1	7.1	3.6	14.3	0.0	7.1	3.6	7.1	3.6	3.6	17.9	0.0	100.
6	7.1	10.7	3.6	3.6	0.0	3.6	7.1	7.1	10.7	3.6	10.7	0.0	7.1	3.6	7.1	14.3	0.0	100.
7	10.7	10.7	3.6	3.6	0.0	7.1	3.6	3.6	14.3	3.6	10.7	0.0	7.1	3.6	7.1	10.7	0.0	100.
8	10.7	10.7	0.0	3.6	0.0	3.6	7.1	3.6	10.7	10.7	7.1	0.0	3.6	7.1	3.6	17.9	0.0	100.
9	17.9	3.6	3.6	3.6	0.0	7.1	7.1	0.0	10.7	7.1	10.7	0.0	3.6	3.6	10.7	10.7	0.0	100.
10	17.9	7.1	3.6	3.6	3.6	3.6	10.7	0.0	14.3	10.7	7.1	0.0	7.1	3.6	0.0	7.1	0.0	100.
11	17.9	3.6	7.1	7.1	0.0	3.6	14.3	0.0	7.1	7.1	14.3	3.6	3.6	3.6	0.0	7.1	0.0	100.
12	21.4	0.0	3.6	7.1	3.6	0.0	14.3	0.0	10.7	3.6	10.7	7.1	0.0	3.6	7.1	7.1	0.0	100.
13	10.7	7.1	0.0	7.1	0.0	0.0	10.7	7.1	10.7	7.1	10.7	3.6	3.6	3.6	3.6	14.3	0.0	100.
14	15.4	3.8	0.0	3.8	0.0	0.0	23.1	3.8	3.8	7.7	0.0	15.4	0.0	3.8	3.8	15.4	0.0	100.
15	11.1	7.4	3.7	3.7	0.0	3.7	14.8	3.7	3.7	3.7	7.4	11.1	0.0	7.4	11.1	7.4	0.0	100.
16	15.4	7.7	0.0	7.7	0.0	3.8	11.5	3.8	3.8	3.8	3.8	11.5	3.8	0.0	19.2	3.8	0.0	100.
17	10.7	3.6	7.1	10.7	3.6	7.1	7.1	3.6	3.6	7.1	7.1	3.6	3.6	0.0	10.7	10.7	0.0	100.
18	10.7	3.6	10.7	10.7	7.1	10.7	0.0	0.0	14.3	3.6	7.1	0.0	0.0	0.0	17.9	3.6	0.0	100.
19	7.1	3.6	10.7	7.1	7.1	14.3	0.0	7.1	7.1	7.1	3.6	0.0	0.0	3.6	14.3	7.1	0.0	100.
20	3.6	7.1	7.1	7.1	7.1	10.7	3.6	7.1	3.6	3.6	7.1	0.0	3.6	0.0	14.3	14.3	0.0	100.
21	14.3	7.1	7.1	7.1	0.0	10.7	10.7	3.6	7.1	7.1	3.6	0.0	0.0	0.0	10.7	10.7	0.0	100.
22	3.8	11.5	11.5	3.8	3.8	11.5	7.7	3.8	3.8	15.4	0.0	0.0	0.0	0.0	7.7	15.4	0.0	100.
23	3.8	11.5	3.8	3.8	3.8	19.2	3.8	3.8	0.0	11.5	3.8	3.8	0.0	0.0	7.7	19.2	0.0	100.
24	7.7	11.5	11.5	3.8	3.8	11.5	3.8	3.8	0.0	7.7	7.7	0.0	3.8	3.8	7.7	11.5	0.0	100.
ALL	10.6	7.4	4.7	5.3	2.3	7.1	7.9	4.1	8.0	5.6	6.8	3.5	3.9	3.2	7.6	12.1	0.0	100.

NUMBER OF OBS = 661

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION JAN-MAR 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MARCH

HR. OF DAY	WIND DIRECTION																CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1	12.9	6.5	3.2	0.0	0.0	3.2	12.9	6.5	12.9	3.2	3.2	3.2	0.0	3.2	12.9	16.1	0.0	100.
2	9.7	6.5	0.0	3.2	0.0	3.2	12.9	3.2	16.1	3.2	3.2	3.2	0.0	3.2	9.7	22.6	0.0	100.
3	9.7	6.5	0.0	3.2	0.0	6.5	9.7	3.2	9.7	6.5	3.2	6.5	0.0	9.7	9.7	16.1	0.0	100.
4	6.5	9.7	0.0	0.0	3.2	6.5	9.7	3.2	6.5	9.7	3.2	6.5	3.2	6.5	16.1	9.7	0.0	100.
5	9.7	6.5	0.0	0.0	3.2	0.0	16.1	3.2	9.7	6.5	3.2	6.5	3.2	9.7	12.9	9.7	0.0	100.
6	6.5	9.7	0.0	0.0	3.2	3.2	9.7	6.5	9.7	3.2	6.5	3.2	9.7	12.9	6.5	9.7	0.0	100.
7	3.2	9.7	0.0	0.0	0.0	6.5	9.7	6.5	9.7	3.2	9.7	6.5	6.5	6.5	9.7	12.9	0.0	100.
8	3.2	6.5	6.5	0.0	3.2	3.2	3.2	9.7	12.9	0.0	6.5	9.7	6.5	6.5	12.9	9.7	0.0	100.
9	3.2	6.5	3.2	3.2	6.5	3.2	3.2	6.5	6.5	6.5	3.2	9.7	9.7	6.5	6.5	16.1	0.0	100.
10	9.7	3.2	6.5	6.5	3.2	0.0	6.5	3.2	6.5	6.5	6.5	0.0	19.4	3.2	6.5	12.9	0.0	100.
11	16.1	3.2	6.5	3.2	0.0	3.2	6.5	3.2	3.2	6.5	6.5	0.0	9.7	12.9	9.7	9.7	0.0	100.
12	12.9	3.2	6.5	0.0	0.0	0.0	9.7	3.2	3.2	6.5	6.5	3.2	9.7	3.2	16.1	16.1	0.0	100.
13	12.9	3.2	3.2	0.0	3.2	0.0	6.5	3.2	3.2	9.7	6.5	9.7	3.2	6.5	12.9	16.1	0.0	100.
14	9.7	9.7	3.2	0.0	0.0	0.0	3.2	6.5	6.5	6.5	12.9	3.2	0.0	12.9	9.7	16.1	0.0	100.
15	25.8	3.2	0.0	0.0	0.0	0.0	3.2	6.5	3.2	3.2	16.1	6.5	0.0	9.7	12.9	9.7	0.0	100.
16	25.8	0.0	0.0	0.0	0.0	0.0	0.0	9.7	6.5	0.0	19.4	3.2	3.2	3.2	6.5	22.6	0.0	100.
17	16.1	9.7	0.0	0.0	0.0	0.0	3.2	6.5	6.5	3.2	12.9	3.2	0.0	6.5	12.9	19.4	0.0	100.
18	23.3	6.7	3.3	0.0	3.3	0.0	3.3	6.7	0.0	10.0	10.0	3.3	3.3	6.7	3.3	16.7	0.0	100.
19	25.8	6.5	0.0	0.0	0.0	3.2	3.2	3.2	3.2	9.7	9.7	3.2	0.0	3.2	16.1	12.9	0.0	100.
20	16.1	9.7	6.5	3.2	3.2	0.0	3.2	3.2	9.7	3.2	3.2	3.2	3.2	0.0	12.9	19.4	0.0	100.
21	12.9	9.7	9.7	3.2	3.2	3.2	3.2	3.2	12.9	0.0	3.2	0.0	3.2	3.2	6.5	22.6	0.0	100.
22	19.4	3.2	3.2	3.2	6.5	3.2	9.7	3.2	9.7	3.2	3.2	3.2	0.0	3.2	3.2	22.6	0.0	100.
23	19.4	6.5	0.0	3.2	6.5	3.2	9.7	3.2	12.9	3.2	3.2	3.2	0.0	3.2	6.5	16.1	0.0	100.
24	16.1	0.0	3.2	0.0	3.2	6.5	12.9	3.2	9.7	6.5	3.2	3.2	0.0	3.2	6.5	22.6	0.0	100.
ALL	13.6	6.1	2.7	1.3	2.2	2.4	7.1	4.8	7.9	5.0	6.9	4.3	3.9	6.1	10.0	15.7	0.0	100.

NUMBER OF OBS = 743

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION JAN-MAR 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JAN-MAR

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	11.1	6.7	4.4	1.1	3.3	4.4	10.0	6.7	8.9	2.2	6.7	3.3	3.3	4.4	7.8	15.6	0.0	100.
2	7.8	6.7	2.2	3.3	3.3	3.3	10.0	7.8	8.9	2.2	4.4	5.6	2.2	4.4	8.9	18.9	0.0	100.
3	7.8	6.7	2.2	2.2	2.2	5.6	8.9	6.7	7.8	5.6	5.6	3.3	4.4	5.6	7.8	17.8	0.0	100.
4	8.9	6.7	1.1	2.2	2.2	7.8	5.6	6.7	7.8	6.7	4.4	4.4	3.3	4.4	11.1	16.7	0.0	100.
5	10.0	6.7	0.0	2.2	3.3	3.3	10.0	5.6	11.1	3.3	6.7	3.3	3.3	5.6	12.2	13.3	0.0	100.
6	8.9	7.8	1.1	2.2	2.2	2.2	7.8	8.9	10.0	2.2	10.0	1.1	5.6	6.7	10.0	13.3	0.0	100.
7	5.6	8.9	1.1	2.2	0.0	6.7	5.6	6.7	11.1	3.3	11.1	2.2	5.6	3.3	11.1	15.6	0.0	100.
8	7.8	6.7	2.2	2.2	1.1	4.4	3.3	8.9	10.0	5.6	7.8	5.6	3.3	5.6	11.1	14.4	0.0	100.
9	7.8	5.6	2.2	3.3	2.2	4.4	4.4	5.6	8.9	6.7	6.7	4.4	4.4	6.7	8.9	17.8	0.0	100.
10	15.7	3.4	4.5	3.4	3.4	2.2	7.9	2.2	11.2	6.7	6.7	1.1	11.2	2.2	9.0	9.0	0.0	100.
11	13.3	2.2	4.4	4.4	1.1	3.3	8.9	2.2	7.8	6.7	8.9	2.2	5.6	6.7	8.9	13.3	0.0	100.
12	14.4	1.1	3.3	3.3	3.3	0.0	8.9	3.3	5.6	7.8	7.8	4.4	5.6	4.4	12.2	14.4	0.0	100.
13	11.1	3.3	1.1	3.3	2.2	1.1	6.7	5.6	6.7	8.9	6.7	6.7	4.4	7.8	6.7	17.8	0.0	100.
14	11.5	5.7	2.3	1.1	0.0	1.1	9.2	5.7	3.4	9.2	6.9	8.0	2.3	10.3	6.9	16.1	0.0	100.
15	16.9	3.4	3.4	1.1	1.1	2.2	6.7	4.5	4.5	4.5	9.0	5.6	4.5	6.7	13.5	12.4	0.0	100.
16	15.9	3.4	1.1	2.3	1.1	2.3	6.8	6.8	3.4	2.3	10.2	4.5	4.5	4.5	12.5	18.2	0.0	100.
17	10.0	6.7	2.2	3.3	1.1	4.4	6.7	6.7	3.3	4.4	8.9	3.3	2.2	4.4	14.4	17.8	0.0	100.
18	14.6	4.5	5.6	3.4	3.4	5.6	3.4	6.7	4.5	6.7	9.0	1.1	1.1	4.5	10.1	15.7	0.0	100.
19	16.7	4.4	4.4	3.3	3.3	6.7	3.3	7.8	5.6	6.7	6.7	1.1	0.0	4.4	12.2	13.3	0.0	100.
20	8.9	7.8	4.4	5.6	4.4	3.3	5.6	8.9	6.7	4.4	4.4	1.1	4.4	0.0	10.0	20.0	0.0	100.
21	11.1	8.9	5.6	3.3	3.3	4.4	11.1	5.6	10.0	4.4	3.3	1.1	1.1	1.1	7.8	17.8	0.0	100.
22	11.4	6.8	5.7	3.4	4.5	5.7	10.2	5.7	9.1	8.0	1.1	3.4	0.0	1.1	4.5	19.3	0.0	100.
23	10.2	8.0	1.1	4.5	4.5	8.0	9.1	5.7	6.8	5.7	4.5	4.5	1.1	1.1	8.0	17.0	0.0	100.
24	12.5	4.5	4.5	2.3	5.7	5.7	10.2	6.8	4.5	6.8	4.5	2.3	2.3	2.3	8.0	17.0	0.0	100.
ALL	11.2	5.7	2.9	2.9	2.6	4.1	7.5	6.2	7.4	5.5	6.8	3.5	3.6	4.5	9.7	15.9	0.0	100.

NUMBER OF OBS = 2146

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION APR-JUN 1994

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	16.7	3.3	3.3	6.7	10.0	0.0	6.7	6.7	10.0	6.7	6.7	0.0	6.7	6.7	10.0	0.0	0.0	100.
2	16.7	3.3	13.3	6.7	3.3	0.0	6.7	3.3	13.3	6.7	3.3	0.0	6.7	3.3	10.0	3.3	0.0	100.
3	13.3	6.7	16.7	0.0	6.7	0.0	3.3	6.7	13.3	6.7	3.3	0.0	10.0	3.3	6.7	3.3	0.0	100.
4	13.3	13.3	3.3	10.0	0.0	6.7	3.3	6.7	10.0	6.7	3.3	0.0	10.0	0.0	13.3	0.0	0.0	100.
5	16.7	16.7	0.0	3.3	6.7	6.7	0.0	10.0	10.0	6.7	3.3	0.0	3.3	3.3	6.7	6.7	0.0	100.
6	23.3	6.7	6.7	6.7	3.3	6.7	3.3	3.3	13.3	6.7	3.3	0.0	3.3	6.7	0.0	6.7	0.0	100.
7	16.7	10.0	10.0	3.3	6.7	3.3	6.7	6.7	10.0	6.7	3.3	0.0	6.7	3.3	0.0	6.7	0.0	100.
8	23.3	6.7	6.7	3.3	3.3	10.0	3.3	3.3	13.3	3.3	6.7	0.0	3.3	10.0	0.0	3.3	0.0	100.
9	17.2	10.3	10.3	3.4	0.0	10.3	3.4	3.4	6.9	13.8	6.9	0.0	3.4	3.4	0.0	6.9	0.0	100.
10	17.2	3.4	13.8	3.4	3.4	3.4	10.3	6.9	6.9	10.3	10.3	0.0	3.4	0.0	6.9	0.0	0.0	100.
11	13.8	3.4	6.9	10.3	0.0	10.3	3.4	6.9	13.8	6.9	6.9	3.4	0.0	6.9	3.4	3.4	0.0	100.
12	13.8	3.4	3.4	13.8	0.0	3.4	3.4	3.4	13.8	13.8	3.4	3.4	3.4	3.4	6.9	6.9	0.0	100.
13	10.3	0.0	3.4	6.9	6.9	0.0	6.9	3.4	10.3	13.8	3.4	3.4	6.9	3.4	13.8	6.9	0.0	100.
14	6.9	10.3	0.0	10.3	3.4	0.0	6.9	3.4	13.8	13.8	0.0	3.4	10.3	3.4	6.9	6.9	0.0	100.
15	3.3	13.3	0.0	10.0	3.3	0.0	6.7	6.7	13.3	10.0	3.3	3.3	10.0	3.3	6.7	6.7	0.0	100.
16	6.7	3.3	10.0	3.3	3.3	0.0	6.7	6.7	6.7	10.0	10.0	10.0	6.7	0.0	6.7	10.0	0.0	100.
17	10.0	3.3	3.3	6.7	6.7	0.0	3.3	10.0	6.7	10.0	6.7	10.0	6.7	6.7	3.3	6.7	0.0	100.
18	10.0	6.7	0.0	6.7	6.7	0.0	3.3	10.0	10.0	10.0	3.3	6.7	10.0	6.7	3.3	6.7	0.0	100.
19	6.7	3.3	6.7	3.3	10.0	3.3	0.0	10.0	13.3	10.0	3.3	3.3	3.3	16.7	3.3	3.3	0.0	100.
20	13.3	6.7	3.3	0.0	10.0	6.7	6.7	6.7	10.0	3.3	10.0	0.0	3.3	10.0	3.3	6.7	0.0	100.
21	13.3	10.0	0.0	0.0	10.0	6.7	10.0	0.0	13.3	3.3	6.7	0.0	3.3	10.0	6.7	6.7	0.0	100.
22	16.7	6.7	3.3	0.0	6.7	10.0	6.7	3.3	13.3	6.7	0.0	3.3	0.0	13.3	6.7	3.3	0.0	100.
23	10.0	10.0	3.3	0.0	6.7	6.7	10.0	6.7	10.0	6.7	0.0	0.0	3.3	10.0	13.3	3.3	0.0	100.
24	10.0	10.0	3.3	3.3	6.7	3.3	6.7	10.0	10.0	3.3	6.7	0.0	6.7	6.7	13.3	0.0	0.0	100.
ALL	13.3	7.1	5.5	5.0	5.2	4.1	5.3	6.0	11.1	8.1	4.8	2.1	5.5	5.9	6.3	4.8	0.0	100.

NUMBER OF OBS = 714

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION APR-JUN 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MAY

HR. OF DAY	WIND DIRECTION																CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1	3.2	3.2	3.2	3.2	0.0	3.2	19.4	25.8	9.7	6.5	3.2	6.5	3.2	3.2	0.0	6.5	0.0	100.
2	6.5	3.2	3.2	0.0	0.0	0.0	12.9	16.1	22.6	12.9	3.2	3.2	6.5	3.2	0.0	6.5	0.0	100.
3	6.5	3.2	6.5	0.0	0.0	6.5	6.5	12.9	25.8	9.7	6.5	0.0	3.2	9.7	0.0	3.2	0.0	100.
4	6.5	3.2	3.2	3.2	0.0	3.2	16.1	12.9	12.9	12.9	6.5	3.2	3.2	6.5	0.0	6.5	0.0	100.
5	6.5	3.2	3.2	6.5	0.0	3.2	16.1	9.7	16.1	12.9	6.5	3.2	0.0	9.7	0.0	3.2	0.0	100.
6	6.5	0.0	6.5	3.2	3.2	3.2	16.1	9.7	16.1	16.1	6.5	0.0	0.0	0.0	6.5	6.5	0.0	100.
7	9.7	3.2	3.2	3.2	0.0	0.0	16.1	9.7	29.0	6.5	6.5	0.0	0.0	0.0	3.2	6.5	3.2	100.
8	12.9	3.2	6.5	3.2	0.0	0.0	19.4	9.7	19.4	12.9	6.5	0.0	3.2	0.0	3.2	0.0	0.0	100.
9	3.2	3.2	9.7	3.2	0.0	0.0	9.7	12.9	29.0	12.9	0.0	6.5	0.0	3.2	0.0	6.5	0.0	100.
10	3.2	3.2	3.2	6.5	0.0	0.0	9.7	19.4	12.9	19.4	6.5	3.2	6.5	0.0	0.0	6.5	0.0	100.
11	9.7	0.0	3.2	6.5	0.0	0.0	9.7	12.9	22.6	16.1	3.2	3.2	6.5	3.2	3.2	0.0	0.0	100.
12	6.5	3.2	6.5	3.2	0.0	0.0	6.5	16.1	22.6	12.9	6.5	0.0	9.7	0.0	3.2	3.2	0.0	100.
13	6.5	6.5	3.2	6.5	0.0	0.0	6.5	25.8	12.9	12.9	6.5	0.0	3.2	6.5	3.2	0.0	0.0	100.
14	9.7	0.0	3.2	6.5	0.0	0.0	3.2	25.8	16.1	6.5	9.7	3.2	3.2	6.5	3.2	6.5	0.0	100.
15	6.5	3.2	3.2	3.2	3.2	0.0	3.2	29.0	19.4	3.2	6.5	0.0	0.0	3.2	9.7	9.7	0.0	100.
16	3.2	6.5	0.0	3.2	3.2	0.0	3.2	29.0	19.4	3.2	6.5	0.0	0.0	3.2	9.7	9.7	0.0	100.
17	3.2	6.5	0.0	0.0	3.2	3.2	3.2	25.8	19.4	9.7	3.2	0.0	0.0	0.0	9.7	12.9	0.0	100.
18	12.9	3.2	0.0	3.2	0.0	3.2	6.5	19.4	22.6	9.7	0.0	3.2	0.0	0.0	6.5	9.7	0.0	100.
19	9.7	6.5	0.0	3.2	0.0	3.2	9.7	19.4	16.1	12.9	3.2	0.0	0.0	6.5	3.2	6.5	0.0	100.
20	9.7	3.2	0.0	6.5	0.0	3.2	19.4	12.9	19.4	9.7	0.0	0.0	6.5	3.2	0.0	6.5	0.0	100.
21	6.7	0.0	3.3	0.0	3.3	6.7	16.7	20.0	20.0	6.7	0.0	0.0	6.7	3.3	0.0	6.7	0.0	100.
22	6.7	0.0	3.3	0.0	0.0	10.0	10.0	20.0	30.0	3.3	0.0	3.3	3.3	3.3	0.0	6.7	0.0	100.
23	3.3	3.3	3.3	0.0	0.0	3.3	10.0	30.0	13.3	13.3	0.0	6.7	0.0	0.0	3.3	10.0	0.0	100.
24	6.5	6.5	0.0	0.0	3.2	9.7	12.9	22.6	12.9	9.7	9.7	3.2	0.0	0.0	0.0	3.2	0.0	100.
ALL	6.9	3.2	3.2	3.1	0.8	2.6	10.8	18.4	19.0	11.1	4.5	2.0	2.8	3.2	2.7	5.5	0.1	100.

NUMBER OF OBS = 741

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION APR-JUN 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JUNE

HR. OF DAY	WIND DIRECTION																CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1	3.3	0.0	3.3	0.0	3.3	13.3	16.7	16.7	16.7	10.0	0.0	0.0	0.0	10.0	0.0	6.7	0.0	100.
2	0.0	0.0	3.3	0.0	10.0	3.3	13.3	10.0	26.7	10.0	3.3	6.7	3.3	3.3	0.0	6.7	0.0	100.
3	0.0	0.0	3.3	10.0	0.0	6.7	10.0	13.3	26.7	10.0	3.3	3.3	3.3	3.3	0.0	6.7	0.0	100.
4	3.3	0.0	13.3	0.0	3.3	3.3	10.0	6.7	23.3	13.3	3.3	10.0	0.0	3.3	0.0	6.7	0.0	100.
5	6.7	3.3	3.3	6.7	3.3	6.7	3.3	10.0	26.7	6.7	10.0	3.3	3.3	0.0	3.3	3.3	0.0	100.
6	3.3	6.7	0.0	6.7	3.3	6.7	6.7	13.3	26.7	6.7	10.0	0.0	3.3	0.0	3.3	3.3	0.0	100.
7	3.3	10.0	6.7	3.3	0.0	3.3	3.3	6.7	26.7	13.3	3.3	3.3	0.0	3.3	6.7	6.7	0.0	100.
8	3.3	3.3	10.0	3.3	6.7	3.3	0.0	13.3	23.3	10.0	3.3	0.0	6.7	6.7	0.0	6.7	0.0	100.
9	3.3	3.3	3.3	6.7	3.3	0.0	16.7	13.3	16.7	6.7	3.3	6.7	0.0	6.7	3.3	6.7	0.0	100.
10	13.3	3.3	3.3	3.3	6.7	3.3	16.7	3.3	13.3	13.3	0.0	3.3	3.3	3.3	3.3	6.7	0.0	100.
11	16.7	3.3	6.7	0.0	3.3	3.3	10.0	10.0	13.3	6.7	0.0	3.3	0.0	0.0	10.0	13.3	0.0	100.
12	10.0	3.3	6.7	3.3	6.7	0.0	13.3	6.7	23.3	6.7	0.0	3.3	3.3	0.0	6.7	6.7	0.0	100.
13	3.3	0.0	13.3	6.7	6.7	3.3	13.3	13.3	13.3	6.7	0.0	6.7	0.0	0.0	3.3	10.0	0.0	100.
14	3.3	0.0	6.7	6.7	6.7	13.3	3.3	13.3	23.3	3.3	3.3	0.0	0.0	3.3	3.3	10.0	0.0	100.
15	3.3	0.0	10.0	6.7	6.7	0.0	13.3	13.3	23.3	3.3	0.0	3.3	0.0	3.3	6.7	6.7	0.0	100.
16	3.3	3.3	13.3	3.3	0.0	3.3	10.0	23.3	20.0	3.3	0.0	0.0	3.3	3.3	0.0	10.0	0.0	100.
17	13.3	3.3	6.7	3.3	3.3	6.7	6.7	20.0	23.3	0.0	3.3	0.0	0.0	0.0	3.3	6.7	0.0	100.
18	10.0	0.0	13.3	3.3	6.7	6.7	3.3	23.3	16.7	6.7	0.0	0.0	0.0	0.0	3.3	6.7	0.0	100.
19	6.7	6.7	13.3	0.0	6.7	10.0	10.0	13.3	20.0	3.3	0.0	0.0	0.0	0.0	6.7	3.3	0.0	100.
20	0.0	3.3	13.3	0.0	16.7	6.7	10.0	20.0	10.0	6.7	0.0	0.0	0.0	0.0	3.3	10.0	0.0	100.
21	0.0	0.0	6.7	10.0	10.0	10.0	20.0	16.7	13.3	3.3	0.0	0.0	0.0	0.0	3.3	6.7	0.0	100.
22	0.0	3.3	10.0	6.7	6.7	3.3	10.0	26.7	16.7	3.3	0.0	0.0	0.0	0.0	6.7	6.7	0.0	100.
23	3.3	0.0	0.0	23.3	3.3	6.7	0.0	30.0	20.0	0.0	3.3	0.0	0.0	0.0	3.3	6.7	0.0	100.
24	6.7	3.3	0.0	10.0	3.3	10.0	10.0	16.7	20.0	6.7	3.3	0.0	0.0	3.3	3.3	3.3	0.0	100.
ALL	5.0	2.5	7.1	5.1	5.3	5.6	9.6	14.7	20.1	6.7	2.2	2.2	1.2	2.2	3.5	6.9	0.0	100.

NUMBER OF OBS = 720

NPPD-COOPER NUCLEAR STATION 100- , WIND DIRECTION APR-JUN 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

APR-JUN

HR. OF DAY	WIND DIRECTION																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	
1	7.7	2.2	3.3	3.3	4.4	5.5	14.3	16.5	12.1	7.7	3.3	2.2	3.3	6.6	3.3	4.4	0.0	100.
2	7.7	2.2	6.6	2.2	4.4	1.1	11.0	9.9	20.9	9.9	3.3	3.3	5.5	3.3	3.3	5.5	0.0	100.
3	6.6	3.3	8.8	3.3	2.2	4.4	6.6	11.0	22.0	8.8	4.4	1.1	5.5	5.5	2.2	4.4	0.0	100.
4	7.7	5.5	6.6	4.4	1.1	4.4	9.9	8.8	15.4	11.0	4.4	4.4	4.4	3.3	4.4	4.4	0.0	100.
5	9.9	7.7	2.2	5.5	3.3	5.5	6.6	9.9	17.6	8.8	6.6	2.2	2.2	4.4	3.3	4.4	0.0	100.
6	11.0	4.4	4.4	5.5	3.3	5.5	8.8	8.8	18.7	9.9	6.6	0.0	2.2	2.2	3.3	5.5	0.0	100.
7	9.9	7.7	6.6	3.3	2.2	2.2	8.8	7.7	22.0	8.8	4.4	1.1	2.2	2.2	3.3	6.6	1.1	100.
8	13.2	4.4	7.7	3.3	3.3	4.4	7.7	8.8	18.7	8.8	5.5	0.0	4.4	5.5	1.1	3.3	0.0	100.
9	7.8	5.6	7.8	4.4	1.1	3.3	10.0	10.0	17.8	11.1	3.3	4.4	1.1	4.4	1.1	6.7	0.0	100.
10	11.1	3.3	6.7	4.4	3.3	2.2	12.2	10.0	11.1	14.4	5.6	2.2	4.4	1.1	3.3	4.4	0.0	100.
11	13.3	2.2	5.6	5.6	1.1	4.4	7.8	10.0	16.7	10.0	3.3	3.3	2.2	3.3	5.6	5.6	0.0	100.
12	10.0	3.3	5.6	6.7	2.2	1.1	7.8	8.9	20.0	11.1	3.3	2.2	5.6	1.1	5.6	5.6	0.0	100.
13	6.7	2.2	6.7	6.7	4.4	1.1	8.9	14.4	12.2	11.1	3.3	3.3	3.3	3.3	6.7	5.6	0.0	100.
14	6.7	3.3	3.3	7.8	3.3	4.4	4.4	14.4	17.8	7.8	4.4	2.2	4.4	4.4	5.6	5.6	0.0	100.
15	4.4	5.5	4.4	6.6	4.4	0.0	6.6	14.3	17.6	9.9	3.3	2.2	4.4	4.4	5.5	6.6	0.0	100.
16	4.4	4.4	7.7	3.3	2.2	1.1	6.6	19.8	15.4	5.5	5.5	3.3	3.3	2.2	5.5	9.9	0.0	100.
17	8.8	4.4	3.3	3.3	4.4	3.3	4.4	18.7	16.5	6.6	4.4	3.3	2.2	2.2	5.5	8.8	0.0	100.
18	11.0	3.3	4.4	4.4	4.4	3.3	4.4	17.6	16.5	8.8	1.1	3.3	3.3	2.2	4.4	7.7	0.0	100.
19	7.7	5.5	6.6	2.2	5.5	5.5	6.6	14.3	16.5	8.8	2.2	1.1	1.1	7.7	4.4	4.4	0.0	100.
20	7.7	4.4	5.5	2.2	8.8	5.5	12.1	13.2	13.2	6.6	3.3	0.0	3.3	4.4	2.2	7.7	0.0	100.
21	6.7	3.3	3.3	3.3	7.8	7.8	15.6	12.2	15.6	4.4	2.2	0.0	3.3	4.4	3.3	6.7	0.0	100.
22	7.8	3.3	5.6	2.2	4.4	7.8	8.9	16.7	20.0	4.4	0.0	2.2	1.1	5.6	4.4	5.6	0.0	100.
23	5.6	4.4	2.2	7.8	3.3	5.6	6.7	22.2	14.4	6.7	1.1	2.2	1.1	3.3	6.7	6.7	0.0	100.
24	7.7	6.6	1.1	4.4	4.4	7.7	9.9	16.5	14.3	6.6	6.6	1.1	2.2	3.3	5.5	2.2	0.0	100.
ALL	8.4	4.3	5.2	4.4	3.7	4.0	8.6	13.1	16.8	8.6	3.8	2.1	3.2	3.8	4.1	5.7	0.0	100.

NUMBER OF OBS = 2175

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION JAN-JUN 1994

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JAN-JUN

HR. OF DAY	WIND DIRECTION																	CALM	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSW	S	SSW	SW	WSW	W	WNW	NW	NNW			
1	9.4	4.4	3.9	2.2	3.9	5.0	12.2	11.6	10.5	5.0	5.0	2.8	3.3	5.5	5.5	9.9	0.0	100.	
2	7.7	4.4	4.4	2.8	3.9	2.2	10.5	8.8	14.9	6.1	3.9	4.4	3.9	3.9	6.1	12.2	0.0	100.	
3	7.2	5.0	5.5	2.8	2.2	5.0	7.7	8.8	14.9	7.2	5.0	2.2	5.0	5.5	5.0	11.0	0.0	100.	
4	8.3	6.1	3.9	3.3	1.7	6.1	7.7	7.7	11.6	8.8	4.4	4.4	3.9	3.9	7.7	10.5	0.0	100.	
5	9.9	7.2	1.1	3.9	3.3	4.4	8.3	7.7	14.4	6.1	6.6	2.8	2.8	5.0	7.7	8.8	0.0	100.	
6	9.9	6.1	2.8	3.9	2.8	3.9	8.3	8.8	14.4	6.1	8.3	0.6	3.9	4.4	6.6	9.4	0.0	100.	
7	7.7	8.3	3.9	2.8	1.1	4.4	7.2	7.2	16.6	6.1	7.7	1.7	3.9	2.8	7.2	11.0	0.6	100.	
8	10.5	5.5	5.0	2.8	2.2	4.4	5.5	8.8	14.4	7.2	6.6	2.8	3.9	5.5	6.1	8.8	0.0	100.	
9	7.8	5.6	5.0	3.9	1.7	3.9	7.2	7.8	13.3	8.9	5.0	4.4	2.8	5.6	5.0	12.2	0.0	100.	
10	13.4	3.4	5.6	3.9	3.4	2.2	10.1	6.1	11.2	10.6	6.1	1.7	7.8	1.7	6.1	6.7	0.0	100.	
11	13.3	2.2	5.0	5.0	1.1	3.9	8.3	6.1	12.2	8.3	6.1	2.8	3.9	5.0	7.2	9.4	0.0	100.	
12	12.2	2.2	4.4	5.0	2.8	0.6	8.3	6.1	12.8	9.4	5.6	3.3	5.6	2.8	8.9	10.0	0.0	100.	
13	8.9	2.8	3.9	5.0	3.3	1.1	7.8	10.0	9.4	10.0	5.0	5.0	3.9	5.6	6.7	11.7	0.0	100.	
14	9.0	4.5	2.8	4.5	1.7	2.8	6.8	10.2	10.7	8.5	5.6	5.1	3.4	7.3	6.2	10.7	0.0	100.	
15	10.6	4.4	3.9	3.9	2.8	1.1	6.7	9.4	11.1	7.2	6.1	3.9	4.4	5.6	9.4	9.4	0.0	100.	
16	10.1	3.9	4.5	2.8	1.7	1.7	6.7	13.4	9.5	3.9	7.8	3.9	3.9	3.4	8.9	14.0	0.0	100.	
17	9.4	5.5	2.8	3.3	2.8	3.9	5.5	12.7	9.9	5.5	6.6	3.3	2.2	3.3	9.9	13.3	0.0	100.	
18	12.8	3.9	5.0	3.9	3.9	4.4	3.9	12.2	10.6	7.8	5.0	2.2	2.2	3.3	7.2	11.7	0.0	100.	
19	12.2	5.0	5.5	2.8	4.4	6.1	5.0	11.0	11.0	7.7	4.4	1.1	0.6	6.1	8.3	8.8	0.0	100.	
20	6.3	6.1	5.0	3.9	6.6	4.4	8.8	11.0	9.9	5.5	3.9	0.6	3.9	2.2	6.1	13.8	0.0	100.	
21	8.9	6.1	4.4	3.3	5.6	6.1	13.3	8.9	12.8	4.4	2.8	0.6	2.2	2.8	5.6	12.2	0.0	100.	
22	9.6	5.1	5.6	2.8	4.5	6.7	9.6	11.2	14.6	6.2	0.6	2.8	0.6	3.4	4.5	12.4	0.0	100.	
23	7.9	6.2	1.7	6.2	3.9	6.7	7.9	14.0	10.7	6.2	2.8	3.4	1.1	2.2	7.3	11.8	0.0	100.	
24	10.1	5.6	2.8	3.4	5.0	6.7	10.1	11.7	9.5	6.7	5.6	1.7	2.2	2.8	6.7	9.5	0.0	100.	
ALL	9.8	5.0	4.1	3.7	3.2	4.1	8.1	9.7	12.1	7.1	5.3	2.8	3.4	4.1	6.9	10.8	0.0	100.	

NUMBER OF OBS = 4321

Precipitation

VR	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
94	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
94	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
94	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
94	1	4	0.00 0.00	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	0.01
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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	0.01 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.01
94	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
94	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
94	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

RAIN VERSION # 2P

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MAR 1994

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	12M 12MDNT	TOTAL
94	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
94	1	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
94	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
94	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
94	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
94	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
94	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
94	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
94	1	26	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.05 0.00	0.05 0.00	0.05 0.00	0.05 0.00	0.05 0.00	0.03 0.00	0.00 0.00	0.00 0.00	0.28
94	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
94	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
94	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
94	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
94	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 PERCIPITATION DATA FOR JAN-MAR 1994

RAIN VERSION # 2P

MONTH OF JANUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
 NUMBER OF MISSING HOURS - 0
 TOTAL HOURS OF PRECIPITATION - 8
 TOTAL DAYS WITH PRECIPITATION - 3
 TOTAL AMOUNT OF PRECIPITATION - 0.30 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - 0.05 INCHES
 MAXIMUM DAILY PRECIPITATION - 0.28 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 26 HOUR 9 - 0.05 INCHES
 6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 26 HOUR 5 - 0.28 INCHES
 12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 26 HOUR 5 - 0.28 INCHES
 18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 26 HOUR 5 - 0.28 INCHES
 24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 26 HOUR 5 - 0.28 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 561
 NUMBER OF MISSING HOURS - 0
 TOTAL HOURS OF PRECIPITATION - 8
 TOTAL DAYS WITH PRECIPITATION - 3
 TOTAL AMOUNT OF PRECIPITATION - 0.30 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - 0.05 INCHES
 MAXIMUM DAILY PRECIPITATION - 0.28 INCHES

MONTH OF JANUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	8	23	41	59	77
0.02	6	11	17	23	29
0.03	6	11	17	23	29
0.04	5	10	16	22	28
0.05	5	10	16	22	28
0.07	0	9	15	21	27
0.10	0	8	14	20	26
0.15	0	6	12	18	24
0.20	0	4	10	16	22
0.25	0	2	8	14	20
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

B40

RAIN VERSION # 2P

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MAR 1994

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
94	2	1	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	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	0.01
94	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
94	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	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
94	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
94	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
94	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
94	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
94	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	0.02 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.02
94	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
94	2	10	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
94	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
94	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
94	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
94	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
94	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
94	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
94	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

RAIN VERSION # 2P

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MAR 1994

YR	MON	DAY	1AM JPM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
94	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
94	2	19	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	0.00 0.00	0.00 0.00	0.00 0.00	0.10
94	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
94	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
94	2	22	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.13 0.00	0.10 0.00	0.10 0.00	0.10 0.00	0.10 0.00	0.10 0.00	0.10 0.00	0.10 0.00	0.83
94	2	23	0.00 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	0.00 0.00	0.03
94	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
94	2	25	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.04 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.04
94	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
94	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
94	2	28	0.00 0.08	0.00 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	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.28

MONTH OF FEBRUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 672
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 16
TOTAL DAYS WITH PRECIPITATION - 7
TOTAL AMOUNT OF PRECIPITATION - 1.31 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.13 INCHES
MAXIMUM DAILY PRECIPITATION - 0.83 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 22 HOUR 5 - 0.13 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 12 HOUR 5 - 0.63 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 22 HOUR 5 - 0.83 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 22 HOUR 5 - 0.83 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 22 HOUR 5 - 0.86 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 452
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 12
TOTAL DAYS WITH PRECIPITATION - 5
TOTAL AMOUNT OF PRECIPITATION - 0.93 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.13 INCHES
MAXIMUM DAILY PRECIPITATION - 0.83 INCHES

MONTH OF FEBRUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	16	51	85	112	136
0.02	15	45	79	106	130
0.03	14	39	67	88	106
0.04	13	33	55	73	91
0.05	12	27	43	55	67
0.07	12	27	43	55	67
0.10	11	26	42	54	66
0.15	0	17	28	34	40
0.20	0	16	27	33	39
0.25	0	13	25	31	37
0.30	0	9	15	21	27
0.35	0	7	13	19	25
0.40	0	7	13	19	25
0.45	0	5	11	17	23
0.50	0	5	11	17	23
0.60	0	3	9	15	21
0.70	0	0	7	13	19
0.80	0	0	5	11	17
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

NFPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR JAN-MAR 1994

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	12M 12MDNT	TOTAL
94	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
94	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
94	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	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
94	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
94	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
94	3	6	0.00 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	0.01
94	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	0.00 0.00	0.00
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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-MAR 1994

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 12HONT	TOTAL
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	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
94	3	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
94	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	0.01 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.01
94	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
94	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

MONTH OF MARCH

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - 0.02 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.01 INCHES
MAXIMUM DAILY PRECIPITATION - 0.01 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 29 HOUR 8 - 0.01 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 29 HOUR 8 - 0.01 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 29 HOUR 8 - 0.01 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 29 HOUR 8 - 0.01 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 29 HOUR 8 - 0.01 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 133
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

MONTH OF MARCH

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	1	6	12	18	24
0.01	2	12	24	36	48
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 PERCIPITATION DATA FOR JAN-MAR 1994

RAIN VERSION # 2P

ANNUAL INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2160
 NUMBER OF MISSING HOURS - 0
 TOTAL HOURS OF PRECIPITATION - 26
 TOTAL DAYS WITH PRECIPITATION - 12
 TOTAL AMOUNT OF PRECIPITATION - 1.63 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - 0.13 INCHES
 MAXIMUM DAILY PRECIPITATION - 0.83 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	2 DAY 22 HOUR	5 -	0.13 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	2 DAY 22 HOUR	5 -	0.63 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	2 DAY 22 HOUR	5 -	0.83 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	2 DAY 22 HOUR	5 -	0.83 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	2 DAY 22 HOUR	5 -	0.86 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 1146
 NUMBER OF MISSING HOURS - 0
 TOTAL HOURS OF PRECIPITATION - 20
 TOTAL DAYS WITH PRECIPITATION - 8
 TOTAL AMOUNT OF PRECIPITATION - 1.23 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - 0.13 INCHES
 MAXIMUM DAILY PRECIPITATION - 0.83 INCHES

ANNUAL INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	26	86	158	227	293
0.02	21	56	98	137	173
0.03	20	50	86	119	149
0.04	18	43	73	103	133
0.05	17	37	61	85	109
0.07	12	36	60	84	108
0.10	11	34	58	82	106
0.15	0	23	41	59	77
0.20	0	20	38	56	74
0.25	0	15	33	51	69
0.30	0	9	15	21	27
0.35	0	7	13	19	25
0.40	0	7	13	19	25
0.45	0	5	11	17	23
0.50	0	5	11	17	23
0.60	0	3	9	15	21
0.70	0	0	7	13	19
0.80	0	0	5	11	17
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-JUN 1994

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	12M 12MDNT	TOTAL
94	4	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
94	4	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
94	4	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
94	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	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
94	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
94	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
94	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
94	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
94	4	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
94	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 0.10	0.00 0.10	0.26
94	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	0.07 0.08	0.07 0.08	0.30
94	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	0.27
94	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
94	4	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
94	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
94	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
94	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-JUN 1994

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	12M 12MDNT	TOTAL
94	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
94	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
94	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
94	4	21	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	0.00 0.00	0.00 0.00	0.00 0.00	0.14
94	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
94	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
94	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
94	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	0.04 0.00	0.00 0.00	0.00 0.00	0.04
94	4	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
94	4	27	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 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.14
94	4	28	0.00 0.16	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.16 0.00	0.00 0.00	0.16 0.00	0.00 0.00	0.00 0.00	0.48
94	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
94	4	30	0.00 0.12	0.00 0.00	0.00 0.00	0.00 0.00	0.12 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	0.24

MONTH OF APRIL

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 18
TOTAL DAYS WITH PRECIPITATION - 8
TOTAL AMOUNT OF PRECIPITATION - 1.87 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.16 INCHES
MAXIMUM DAILY PRECIPITATION - 0.48 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 28 HOUR 13 - 0.16 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 28 HOUR 8 - 0.48 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 28 HOUR 8 - 0.48 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 28 HOUR 8 - 0.48 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 27 HOUR 15 - 0.62 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 31
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

MONTH OF APRIL

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	18	70	118	147	171
0.02	18	70	118	147	171
0.03	18	70	118	147	171
0.04	18	70	118	147	171
0.05	17	64	106	129	147
0.07	16	63	105	128	146
0.10	9	59	104	127	145
0.15	3	29	53	77	96
0.20	0	15	39	71	91
0.25	0	14	34	59	79
0.30	0	6	18	43	63
0.35	0	1	12	28	51
0.40	0	1	11	27	49
0.45	0	1	7	13	28
0.50	0	0	0	0	7
0.60	0	0	0	0	2
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-JUN 1994

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
94	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
94	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 0.00	0.00 0.00	0.00
94	5	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
94	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
94	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
94	5	6	0.00 0.00	0.50 0.00	0.51 0.00	0.10 0.00	0.20 0.00	0.50 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	1.81
94	5	7	0.10 0.00	0.06 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.16
94	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
94	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
94	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
94	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
94	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
94	5	13	0.00 0.00	0.00 0.00	0.00 0.00	0.04 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.04
94	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	0.10 0.00	0.10 0.00	0.20
94	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
94	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
94	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

RAIN VERSION # 2P

MPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR APR-JUN 1994

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	12M 12MDNT	TOTAL
94	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
94	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
94	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
94	5	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
94	5	22	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
94	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
94	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
94	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	0.06
94	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
94	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
94	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
94	5	29	0.00 0.00	0.00 0.00	0.10 0.00	0.10 0.00	0.10 0.00	0.06 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.36
94	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
94	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 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00

MONTH OF MAY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 15
TOTAL DAYS WITH PRECIPITATION - 6
TOTAL AMOUNT OF PRECIPITATION - 2.63 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.51 INCHES
MAXIMUM DAILY PRECIPITATION - 1.81 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY	6 HOUR	3 -	0.51 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY	6 HOUR	2 -	1.81 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY	6 HOUR	2 -	1.81 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY	6 HOUR	2 -	1.81 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY	6 HOUR	2 -	1.91 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

MONTH OF MAY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	15	45	81	117	148
0.02	15	45	81	117	148
0.03	15	45	81	117	148
0.04	15	45	81	117	148
0.05	14	39	69	99	124
0.07	11	31	55	79	98
0.10	11	31	55	79	98
0.15	4	27	51	75	95
0.20	4	21	39	57	75
0.25	3	15	27	39	51
0.30	3	14	26	38	50
0.35	3	13	25	37	49
0.40	3	10	16	22	28
0.45	3	10	16	22	28
0.50	3	10	16	22	28
0.60	0	8	14	20	27
0.70	0	8	14	20	26
0.80	0	7	13	19	26
0.90	0	6	12	18	25
1.00	0	6	12	18	24
1.10	0	5	11	17	23
1.20	0	4	10	16	22
1.30	0	4	10	16	22
1.40	0	2	8	14	21
1.50	0	2	8	14	20
1.60	0	2	8	14	20
1.70	0	2	8	14	20
1.80	0	2	8	14	20
1.90	0	0	0	0	1
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-JUN 1994

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
94	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	0.16 0.00	0.08 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.24
94	6	2	0.11 0.00	0.33 0.00	0.10 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.54
94	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
94	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
94	6	5	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.12	0.00 0.00	0.00 0.00	0.40 0.00	0.50 0.00	0.00 0.11	0.00 0.00	0.00 0.00	1.13
94	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
94	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	0.03 0.00	0.00 0.03	0.03
94	6	8	0.24 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.24 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	0.43
94	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
94	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
94	6	11	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.22	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	0.22
94	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
94	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
94	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
94	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
94	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
94	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-JUN 1994

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
94	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	0.05 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.05
94	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
94	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
94	6	21	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.06 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.06
94	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	0.02 0.00	0.00 0.00	0.00 0.00	0.02
94	6	23	0.63 0.00	0.50 0.00	0.14 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	1.24
94	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
94	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
94	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
94	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
94	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
94	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
94	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

MONTH OF JUNE

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 19
TOTAL DAYS WITH PRECIPITATION - 10
TOTAL AMOUNT OF PRECIPITATION - 4.01 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 1.24 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 23 HOUR 1 - 0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 23 HOUR 1 - 1.24 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 23 HOUR 1 - 1.24 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 22 HOUR 10 - 1.26 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS DAY 22 HOUR 10 - 1.26 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

MONTH OF JUNE

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	19	77	129	172	208
0.02	19	77	129	172	208
0.03	18	71	117	157	193
0.04	17	71	116	156	192
0.05	17	71	116	156	192
0.07	15	58	92	120	144
0.10	14	57	91	120	144
0.15	9	44	82	113	137
0.20	8	43	82	113	137
0.25	5	26	50	75	99
0.30	5	21	45	70	94
0.35	4	21	45	70	94
0.40	4	21	45	69	93
0.45	3	18	42	67	91
0.50	3	17	41	66	90
0.60	1	12	25	37	56
0.70	0	10	22	35	52
0.80	0	10	22	34	46
0.90	0	10	22	34	46
1.00	0	5	14	26	38
1.10	0	5	11	21	33
1.20	0	4	10	16	22
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

ANNUAL INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2184
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 52
TOTAL DAYS WITH PRECIPITATION - 24
TOTAL AMOUNT OF PRECIPITATION - 8.51 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 1.81 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH 6 DAY 23 HOUR 1 - 0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH 5 DAY 6 HOUR 2 - 1.81 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH 5 DAY 6 HOUR 2 - 1.81 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH 5 DAY 6 HOUR 2 - 1.81 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH 5 DAY 6 HOUR 2 - 1.91 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 31
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

ANNUAL INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	52	192	332	452	555
0.02	52	192	332	452	555
0.03	51	186	320	437	540
0.04	50	185	319	436	539
0.05	48	173	295	400	491
0.07	42	152	256	343	416
0.10	34	147	254	342	415
0.15	16	100	190	275	348
0.20	12	79	163	250	322
0.25	8	55	111	173	229
0.30	8	41	89	151	207
0.35	7	35	82	135	194
0.40	7	32	72	118	170
0.45	6	29	65	102	147
0.50	6	27	57	88	125
0.60	1	20	39	57	85
0.70	0	18	36	55	78
0.80	0	17	35	53	72
0.90	0	16	34	52	71
1.00	0	11	26	44	62
1.10	0	10	22	38	56
1.20	0	8	20	32	44
1.30	0	4	10	16	22
1.40	0	2	8	14	21
1.50	0	2	8	14	20
1.60	0	2	8	14	20
1.70	0	2	8	14	20
1.80	0	2	8	14	20
1.90	0	0	0	0	1
2.00	0	0	0	0	0

ANNUAL INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 4344
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 78
TOTAL DAYS WITH PRECIPITATION - 36
TOTAL AMOUNT OF PRECIPITATION - 10.14 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 1.81 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	6 DAY 23 HOUR	1 -	0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	5 DAY 6 HOUR	2 -	1.81 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	5 DAY 6 HOUR	2 -	1.81 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	5 DAY 6 HOUR	2 -	1.81 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PERCIPITATION STARTS MONTH	5 DAY 6 HOUR	2 -	1.91 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES FARENHEIT

TOTAL NUMBER OF HOURS - 1177
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 20
TOTAL DAYS WITH PRECIPITATION - 8
TOTAL AMOUNT OF PRECIPITATION - 1.23 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.13 INCHES
MAXIMUM DAILY PRECIPITATION - 0.83 INCHES

ANNUAL INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
0.01	78	278	490	679	848
0.02	73	248	430	589	728
0.03	71	236	406	556	689
0.04	68	228	392	539	672
0.05	65	210	356	485	600
0.07	54	168	316	427	524
0.10	45	181	312	424	521
0.15	16	123	231	334	425
0.20	12	99	201	306	396
0.25	8	70	144	224	298
0.30	8	50	104	172	234
0.35	7	42	95	154	219
0.40	7	39	85	137	195
0.45	6	34	76	119	170
0.50	6	32	68	105	148
0.60	1	23	48	72	106
0.70	0	18	43	68	97
0.80	0	17	40	64	89
0.90	0	16	34	52	71
1.00	0	11	26	44	62
1.10	0	10	22	38	56
1.20	0	8	20	32	44
1.30	0	4	10	16	22
1.40	0	2	8	14	21
1.50	0	2	8	14	20
1.60	0	2	8	14	20
1.70	0	2	8	14	20
1.80	0	2	8	14	20
1.90	0	0	0	0	1
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 Cooper Nuclear Station. The joint frequency distribution (JFD) tables represent 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 (ΔT) for the 100-meter JFDs and the 60-meter to 10-meter ΔT for the 10-meter JFDs.

JFDs of 10-Meter Wind vs. Delta T

January-March 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
7.51-12.50	10	0	0	0	0	0	0	0	1	3	2	0	0	0	1	8	25
12.51-18.50	1	0	0	0	0	0	3	1	4	5	9	1	0	0	3	14	41
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	4
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
TOTAL	12	0	0	0	0	0	3	1	5	8	11	2	0	2	5	25	74

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	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	5	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	8
7.51-12.50	8	0	0	0	0	0	4	0	4	7	2	0	1	1	2	8	37
12.51-18.50	2	0	0	0	0	0	3	3	0	2	4	1	2	0	8	9	34
18.51-24.00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	6
>24.00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL	15	0	0	0	0	0	9	4	4	10	6	1	3	2	12	20	86

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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	12	1	0	0	1	0	1	3	2	1	1	1	1	3	1	3	31
7.51-12.50	5	5	0	1	1	2	1	2	4	6	5	1	3	5	3	11	55
12.51-18.50	1	0	0	0	0	1	5	1	0	1	3	2	0	3	5	13	35
18.51-24.00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	18	6	0	1	2	3	8	6	6	8	9	4	4	12	9	28	124

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	8	8	8	3	1	0	3	6	3	3	4	2	2	0	2	2	55
3.51- 7.50	57	37	23	20	22	35	30	19	6	19	19	9	9	13	15	26	359
7.51-12.50	50	32	21	15	12	27	37	20	27	12	8	6	12	21	43	89	432
12.51-18.50	3	5	0	4	3	0	9	15	6	6	4	4	3	10	56	83	211
18.51-24.00	0	0	0	0	0	0	4	0	0	0	0	1	0	8	9	22	44
>24.00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	3
TOTAL	118	82	52	42	38	62	84	60	42	40	35	22	26	52	126	223	1104

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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	WNNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	18	10	7	2	2	3	2	6	9	6	7	7	4	4	7	6	100
3.51- 7.50	43	6	4	7	5	10	19	16	23	18	10	6	13	8	18	20	226
7.51-12.50	6	0	0	0	1	7	17	4	6	12	8	4	2	8	21	12	108
12.51-18.50	0	0	0	0	0	0	4	10	9	2	0	0	1	4	1	1	32
18.51-24.00	0	0	0	0	0	0	4	2	2	0	0	0	0	0	0	1	9
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	67	16	11	9	8	20	46	38	49	38	25	17	20	24	47	40	476

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	WNNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	7	4	1	1	1	1	6	5	21	10	4	1	6	3	0	5	76
3.51- 7.50	1	0	0	0	0	0	3	15	30	18	3	3	2	10	9	3	97
7.51-12.50	0	0	0	0	0	0	0	1	7	2	1	0	0	2	6	0	19
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
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	8	4	1	1	1	1	9	21	58	30	8	4	8	16	15	8	193

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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	7	3	2	0	1	0	8	11	11	8	3	3	0	2	4	1	64
3.51- 7.50	0	0	0	0	0	0	1	8	3	3	0	0	1	0	0	0	16
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
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	7	3	2	0	1	0	9	19	14	11	3	3	3	3	4	1	84

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	40	25	18	6	5	4	19	28	44	27	18	13	12	9	13	14	295
3.51- 7.50	119	44	27	27	28	45	55	62	64	59	33	19	26	35	44	52	739
7.51-12.50	79	37	21	16	14	36	59	27	49	42	26	11	20	37	76	128	678
12.51-18.50	7	5	0	4	3	1	24	30	19	16	20	8	6	19	73	120	355
18.51-24.00	0	0	0	0	0	0	9	2	2	1	0	2	0	8	11	30	65
>24.00	0	0	0	0	0	0	2	0	0	0	0	0	0	3	1	1	7
TOTAL	245	111	66	53	50	86	168	149	178	145	97	53	64	111	218	345	2141

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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: 2160

TOTAL NUMBER OF VALID OBSERVATIONS: 2141

TOTAL NUMBER OF MISSING OBSERVATIONS: 19

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.1 %

MEAN WIND SPEED FOR THIS PERIOD: 8.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.46	4.02	5.79	51.56	22.23	9.01	3.92

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	12	0	0	0	0	0	3	1	5	8	11	2	0	2	5	25	0
B	15	0	0	0	0	0	9	4	4	10	6	1	3	2	12	20	0
C	18	6	0	1	2	3	8	6	6	8	9	4	4	12	9	28	0
D	118	82	52	42	38	62	84	60	42	40	35	22	26	52	126	223	0
E	67	16	11	9	8	20	46	38	49	38	25	17	20	24	47	40	1
F	8	4	1	1	1	1	9	21	58	30	8	4	8	16	15	8	0
G	7	3	2	0	1	0	9	19	14	11	3	3	3	3	4	1	1
TOTAL	245	111	66	53	50	86	168	149	178	145	97	53	64	111	218	345	2

JFDs of 10-Meter Wind vs. Delta T

April-June 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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	1	0	0	0	2
3.51- 7.50	1	0	1	0	0	0	1	0	1	3	2	0	1	1	3	0	14
7.51-12.50	7	6	2	0	0	0	14	28	16	10	5	0	3	1	1	3	96
12.51-18.50	1	0	0	0	1	1	7	24	25	11	1	3	4	2	2	2	84
18.51-24.00	0	0	0	0	0	0	1	2	13	6	2	4	0	0	5	0	33
>24.00	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	4
TOTAL	9	6	3	0	1	1	23	54	59	30	11	7	9	4	11	5	233

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	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4
3.51- 7.50	6	3	2	1	0	0	1	3	2	3	2	2	1	1	1	1	29
7.51-12.50	13	0	3	2	0	1	17	14	12	8	2	2	2	0	3	4	83
12.51-18.50	1	0	1	1	1	3	2	2	7	3	1	2	1	1	0	1	27
18.51-24.00	0	0	0	0	0	0	0	0	3	2	1	0	1	1	2	0	10
>24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
TOTAL	22	3	7	4	1	4	20	19	25	16	6	6	5	3	8	6	155

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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	2	0	0	0	0	0	1	1	0	1	0	0	0	0	1	6
3.51- 7.50	3	4	1	9	0	3	8	9	4	5	4	3	3	0	3	4	63
7.51-12.50	6	2	2	9	2	3	10	8	9	2	3	1	1	2	2	13	75
12.51-18.50	4	0	0	1	1	0	2	4	2	4	1	1	2	2	6	2	32
18.51-24.00	0	0	0	0	0	0	0	0	4	1	0	0	0	1	0	0	6
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	13	8	3	19	3	6	20	22	20	12	9	5	6	5	12	20	183

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	6	7	4	5	1	1	4	7	3	3	0	0	1	2	2	5	51
3.51- 7.50	36	36	38	25	16	24	38	28	13	15	3	2	4	4	5	17	364
7.51-12.50	31	31	24	20	25	15	26	36	25	13	8	1	2	8	18	22	305
12.51-18.50	10	1	0	8	7	0	5	13	45	6	3	2	4	20	12	13	149
18.51-24.00	3	0	0	0	0	0	1	0	7	0	0	0	7	6	5	0	29
>24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	1	1	0	4
TOTAL	86	75	66	58	49	40	74	84	95	37	14	5	18	41	43	57	842

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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	13	13	10	8	1	2	8	18	25	10	5	5	1	4	6	6	135
3.51- 7.50	18	10	4	6	4	10	17	24	28	21	7	2	4	0	6	15	176
7.51-12.50	7	2	3	2	1	0	13	22	20	16	8	3	1	1	4	5	108
12.51-18.50	0	0	0	0	0	1	4	6	11	6	0	2	3	0	0	0	33
18.51-24.00	0	0	0	0	0	0	1	0	1	2	1	0	0	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	38	25	17	16	6	13	43	70	85	55	21	12	9	5	16	26	457

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																	0
1.01- 3.50	18	6	1	0	1	2	1	16	12	15	7	2	3	4	11	18	117
3.51- 7.50	4	0	0	1	0	0	2	5	2	3	1	1	1	2	4	7	33
7.51-12.50	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	1	1	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	23	6	1	1	1	2	3	21	14	18	8	5	6	6	15	25	155

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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																	2
1.01- 3.50	12	3	1	1	1	3	3	17	14	4	4	2	1	1	9	3	79
3.51- 7.50	2	0	0	0	1	0	0	4	4	0	0	1	1	2	2	1	18
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	5
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	14	3	1	1	2	3	3	21	18	4	4	4	5	4	11	4	104

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	51	31	17	14	4	8	16	59	56	32	17	9	7	11	29	33	394
3.51- 7.50	70	53	46	42	21	37	67	73	54	50	19	11	15	10	24	45	637
7.51-12.50	65	41	34	33	28	19	80	108	82	49	26	9	13	13	28	47	675
12.51-18.50	16	1	1	10	10	5	20	49	90	30	6	11	15	25	20	18	327
18.51-24.00	3	0	0	0	0	0	3	2	28	11	4	4	8	8	12	0	83
>24.00	0	0	0	0	0	0	0	0	6	0	1	0	0	1	3	0	11
TOTAL	205	126	98	99	63	69	186	291	316	172	73	44	58	68	116	143	2129

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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: 2129

TOTAL NUMBER OF MISSING OBSERVATIONS: 55

PERCENT DATA RECOVERY FOR THIS PERIOD: 97.5 %

MEAN WIND SPEED FOR THIS PERIOD: 8.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
10.94	7.28	8.60	39.55	21.47	7.28	4.88

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	9	6	3	0	1	1	23	54	59	30	11	7	9	4	11	5	0
B	22	3	7	4	1	4	20	19	25	16	6	6	5	3	8	6	0
C	13	8	3	19	3	6	20	22	20	12	9	5	6	5	12	20	0
D	86	75	66	58	49	40	74	84	95	37	14	5	18	41	43	57	0
E	38	25	17	16	6	13	43	70	85	55	21	12	9	5	16	26	0
F	23	6	1	1	1	2	3	21	14	18	8	5	6	6	15	25	0
G	14	3	1	1	2	3	3	21	18	4	4	4	5	4	11	4	2
TOTAL	205	126	98	99	63	69	186	291	316	172	73	44	58	68	116	143	2

JFDs of 10-Meter Wind vs. Delta T

January-June 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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	1	0	0	0	2
3.51- 7.50	2	0	1	0	0	0	1	0	1	3	2	0	1	1	4	0	16
7.51-12.50	17	6	2	0	0	0	14	28	17	13	7	0	3	1	2	11	121
12.51-18.50	2	0	0	0	1	1	10	25	29	16	10	4	4	2	5	16	125
18.51-24.00	0	0	0	0	0	0	1	2	13	6	2	5	0	0	5	3	37
>24.00	0	0	0	0	0	0	0	0	3	0	1	0	0	2	0	0	6
TOTAL	21	6	3	0	1	1	26	55	64	38	22	9	9	6	16	30	307

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	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4
3.51- 7.50	11	3	2	1	0	0	2	4	2	3	2	2	1	2	1	1	37
7.51-12.50	21	0	3	2	0	1	21	14	16	15	4	2	3	1	5	12	120
12.51-18.50	3	0	1	1	1	3	5	5	7	5	5	3	3	1	8	10	61
18.51-24.00	0	0	0	0	0	0	0	0	3	3	1	0	1	1	4	3	16
>24.00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	3
TOTAL	37	3	7	4	1	4	29	23	29	26	12	7	8	5	20	26	241

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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	2	0	0	0	0	0	1	1	0	1	0	0	0	9	1	6
3.51- 7.50	15	5	1	9	1	3	9	12	6	6	5	4	4	3	4	7	94
7.51-12.50	11	7	2	10	3	5	11	10	13	8	8	2	4	7	5	24	130
12.51-18.50	5	0	0	1	1	1	7	5	2	5	4	3	2	5	11	15	67
18.51-24.00	0	0	0	0	0	0	1	0	4	1	0	0	0	1	0	1	8
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
TOTAL	31	14	3	20	5	9	28	28	26	20	18	9	10	17	21	48	307

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	14	15	12	8	2	1	7	13	6	6	4	2	3	2	4	7	106
3.51- 7.50	93	73	61	45	38	59	68	47	19	34	22	11	13	17	20	43	663
7.51-12.50	81	63	45	35	37	42	63	56	52	25	16	7	14	29	61	111	737
12.51-18.50	13	6	0	12	10	0	14	28	51	12	7	6	7	30	68	96	360
18.51-24.00	3	0	0	0	0	0	5	0	7	0	0	1	7	14	14	22	73
>24.00	0	0	0	0	0	0	1	0	2	0	0	0	0	1	2	1	7
TOTAL	204	157	118	100	87	102	158	144	137	77	49	27	44	93	169	280	1946

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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																	1
1.01- 3.50	31	23	17	10	3	5	10	24	34	16	12	12	5	8	13	12	235
3.51- 7.50	61	16	8	13	9	20	36	40	51	39	17	8	17	8	24	35	402
7.51-12.50	13	2	3	2	2	7	30	26	26	28	16	7	3	9	25	17	216
12.51-18.50	0	0	0	0	0	1	8	16	20	8	0	2	4	4	1	1	65
18.51-24.00	0	0	0	0	0	0	5	2	3	2	1	0	0	0	0	1	14
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	105	41	28	25	14	33	89	108	134	93	46	29	29	29	63	66	933

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																	0
1.01- 3.50	25	10	2	1	2	3	7	21	33	25	11	3	9	7	11	23	193
3.51- 7.50	5	0	0	1	0	0	5	20	32	21	4	4	3	12	13	10	130
7.51-12.50	1	0	0	0	0	0	0	1	7	2	1	1	1	2	6	0	22
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3
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	31	10	2	2	2	3	12	42	72	48	16	9	14	22	30	33	348

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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	19	6	3	1	2	3	11	28	25	12	7	5	1	3	13	4	143
3.51- 7.50	2	0	0	0	1	0	1	12	7	3	0	1	2	2	1	0	34
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0	0	7
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
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	21	6	3	1	3	3	12	40	32	15	7	7	8	7	15	5	188

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																	4
1.01- 3.50	91	56	35	20	9	12	35	87	100	59	35	22	19	20	42	47	689
3.51- 7.50	189	97	73	69	49	82	122	135	118	109	52	30	41	45	68	97	1376
7.51-12.50	144	78	55	49	42	55	139	135	131	91	52	20	33	50	104	175	1353
12.51-18.50	23	6	1	14	13	6	44	79	109	46	26	19	21	44	93	138	682
18.51-24.00	3	0	0	0	0	0	12	4	30	12	4	6	8	16	23	30	148
>24.00	0	0	0	0	0	0	2	0	6	0	1	0	0	4	4	1	18
TOTAL	450	237	164	152	113	155	354	440	494	317	170	97	122	179	334	488	4270

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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: 4344

TOTAL NUMBER OF VALID OBSERVATIONS: 4270

TOTAL NUMBER OF MISSING OBSERVATIONS: 74

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.3 %

MEAN WIND SPEED FOR THIS PERIOD: 8.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
7.19	5.64	7.19	45.57	21.85	8.15	4.40

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	6	3	0	1	1	26	55	64	38	22	9	9	6	16	30	0
B	37	3	7	4	1	4	29	23	29	26	12	7	8	5	20	26	0
C	31	14	3	20	5	9	28	28	26	20	18	9	10	17	21	48	0
D	204	157	118	100	87	102	158	144	137	77	49	27	44	93	169	280	0
E	105	41	28	25	14	33	89	108	134	93	46	29	29	29	63	66	1
F	31	10	2	2	2	3	12	42	72	48	16	9	14	22	30	33	0
G	21	6	3	1	3	3	12	40	32	15	7	7	8	7	15	5	3
TOTAL	450	237	164	152	113	155	354	440	494	317	170	97	122	179	334	488	4

Stability Class by Hour of Day

10-Meter Wind vs. Delta T

January-June 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

			HOURLY STABILITIES																							
			HOURS																							
YR	MM	DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
94	1	1	E	E	E	D	D	D	D	D	D	D	D	C	C	C	D	D	D	E	F	F	F	F	F	E
94	1	2	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	5	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
94	1	6	E	D	D	D	D	D	D	D	D	D	D	C	B	C	C	D	D	D	D	D	D	D	D	D
94	1	7	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	D	D	D	E	E	E	D	D	D
94	1	8	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	9	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	E	E	E	E
94	1	10	E	E	E	D	E	E	E	E	D	D	D	D	D	D	D	D	E	F	F	F	E	E	D	D
94	1	11	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	E	E	E	E	E	D	D
94	1	12	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	F	G	F	F	F	E	E
94	1	13	E	E	E	D	E	E	D	D	D	D	D	C	B	B	B	C	D	D	D	D	D	D	D	D
94	1	14	D	D	D	D	D	D	D	D	D	D	C	B	A	B	C	C	D	D	E	E	E	E	D	D
94	1	15	D	D	D	D	D	D	D	D	D	D	C	D	C	D	D	D	D	D	D	D	D	D	D	D
94	1	16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	17	D	D	D	D	D	D	D	E	D	-	B	C	B	C	D	D	D	D	D	D	D	D	D	D
94	1	18	D	D	D	D	E	D	D	D	D	D	C	B	C	B	C	C	D	D	E	E	D	D	D	D
94	1	19	D	D	D	D	D	D	D	D	D	D	C	B	C	D	D	D	D	D	D	D	D	D	D	D
94	1	20	D	D	D	D	D	D	D	D	D	C	C	C	C	C	D	D	D	E	F	F	F	F	F	F
94	1	21	F	E	F	E	E	E	E	E	D	D	C	C	B	C	C	C	D	E	F	G	G	F	F	F
94	1	22	E	F	F	F	F	F	E	E	E	D	C	C	B	B	C	C	D	E	F	F	F	G	G	G
94	1	23	G	G	F	E	E	E	D	D	D	D	B	B	C	D	C	D	E	F	F	F	F	F	F	F
94	1	24	F	F	G	G	F	F	E	D	D	D	D	D	D	D	D	D	D	E	F	E	E	E	E	E
94	1	25	E	E	E	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	26	D	D	D	D	D	D	D	D	D	D	D	D	D	-	D	D	D	D	D	D	D	D	D	D
94	1	27	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	28	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
94	1	29	E	D	D	D	D	D	D	D	D	D	D	B	B	B	C	D	D	D	D	D	D	D	D	D
94	1	30	D	D	D	D	D	D	D	D	D	B	B	A	A	A	B	C	D	D	D	D	D	D	D	D
94	1	31	D	D	D	E	E	E	E	E	D	D	D	D	C	D	D	D	D	E	F	E	E	E	D	D
94	2	1	D	D	D	E	E	E	D	E	D	D	D	C	D	D	D	D	D	D	D	E	E	D	D	E
94	2	2	E	E	F	E	E	E	E	E	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D
94	2	3	D	E	E	E	E	E	E	E	E	D	D	D	D	D	-	D	D	E	E	D	D	D	D	D
94	2	4	D	D	D	E	E	E	E	E	D	D	D	C	D	D	D	D	D	E	E	F	F	F	G	E
94	2	5	G	F	E	E	E	E	E	E	D	D	D	C	C	C	D	D	D	E	E	E	F	E	E	E
94	2	6	E	E	E	E	E	F	E	E	E	D	C	C	A	A	B	C	D	D	D	D	D	D	D	D
94	2	7	D	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	D	D
94	2	8	D	D	D	D	D	D	D	D	D	D	C	C	C	B	C	D	D	D	D	D	D	D	D	D
94	2	9	D	D	D	D	D	D	D	D	D	C	A	C	C	D	D	D	D	D	D	D	E	E	E	E
94	2	10	E	E	E	E	E	E	E	E	D	D	C	B	B	B	C	C	D	D	F	G	G	G	G	F
94	2	11	G	G	G	G	F	G	F	E	E	D	D	D	B	B	C	D	D	D	D	D	D	D	D	E
94	2	12	D	D	E	E	E	E	D	E	D	D	A	A	B	C	A	D	D	D	D	D	E	E	E	E
94	2	13	F	F	F	E	E	E	E	E	F	D	C	C	A	B	B	D	D	E	D	G	F	F	F	F
94	2	14	E	E	E	E	E	E	F	F	E	D	B	A	A	A	D	B	D	D	E	E	-	-	-	-

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MM	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
94	2	15	F	G	F	F	F	E	F	F	E	D	B	B	B	B	D	D	D	E	F	F	G	G	G	F
94	2	16	F	F	F	F	F	F	F	E	E	D	D	B	A	A	B	D	D	E	F	F	F	F	E	F
94	2	17	F	F	E	E	E	E	E	F	E	D	D	D	D	B	C	B	D	E	E	E	E	-	-	-
94	2	18	E	E	E	E	E	E	E	E	D	D	D	D	C	D	B	D	D	D	E	E	E	E	E	E
94	2	19	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	20	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	E	E	E	E	E	E	D
94	2	21	D	E	D	D	D	D	D	D	C	C	B	B	-	D	C	D	D	D	D	D	D	D	D	D
94	2	22	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	-	-
94	2	24	F	E	F	F	F	F	E	E	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D	D
94	2	25	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
94	2	26	E	E	E	E	E	E	E	D	D	D	D	D	E	D	D	D	D	D	D	E	E	E	E	D
94	2	27	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	28	D	D	D	D	D	E	E	E	E	D	D	D	D	-	-	-	D	D	D	D	D	D	D	D
94	3	1	D	D	E	D	D	E	E	E	E	D	D	E	E	E	D	D	D	E	E	F	F	G	G	G
94	3	2	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	E	F	F	F	F	F	G
94	3	3	G	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	F	F	G	G	F	E	E
94	3	4	E	E	F	F	F	F	F	F	E	D	D	D	D	C	C	D	D	E	F	G	G	G	G	G
94	3	5	G	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	E	E	F	E	E	E	E	E
94	3	6	E	E	E	E	E	E	E	E	D	D	C	B	A	C	D	D	D	D	D	D	D	D	E	D
94	3	7	D	D	D	D	D	E	E	E	D	D	B	A	A	A	C	D	D	D	D	D	D	D	E	E
94	3	8	E	E	E	E	E	E	E	E	D	D	B	B	A	A	B	C	D	D	D	E	E	D	D	E
94	3	9	E	E	E	E	E	E	E	D	D	D	D	C	D	D	C	C	D	D	E	E	F	F	F	E
94	3	10	E	F	E	-	E	E	E	E	E	D	C	A	B	A	A	A	D	D	E	E	E	E	D	D
94	3	11	D	D	D	D	D	D	D	D	D	C	C	A	B	B	C	D	E	E	E	E	E	F	F	F
94	3	12	F	F	F	F	F	F	F	F	E	D	D	C	B	C	D	D	D	-	E	F	E	E	E	E
94	3	13	E	F	G	G	F	F	E	E	D	D	D	D	C	C	B	B	C	D	E	E	G	G	G	G
94	3	14	G	F	F	F	F	F	F	E	E	C	D	D	D	D	D	D	D	E	F	E	E	E	E	E
94	3	15	E	F	F	F	F	F	E	E	D	C	A	A	A	A	A	C	D	E	E	E	E	E	E	E
94	3	16	E	E	E	E	E	F	F	E	D	B	B	A	A	B	A	B	C	D	E	E	E	D	D	D
94	3	17	D	D	E	E	E	E	D	E	D	C	B	B	A	C	A	D	D	E	F	D	D	D	E	E
94	3	18	F	G	G	G	G	F	E	E	D	B	A	A	B	A	B	B	D	D	F	G	G	G	G	G
94	3	19	F	F	E	E	E	E	E	E	D	D	B	A	A	A	A	C	D	F	G	G	F	F	F	F
94	3	20	F	F	F	F	F	E	F	E	E	D	D	A	B	A	D	D	D	D	D	D	D	D	D	D
94	3	21	E	E	E	E	E	E	E	D	D	D	C	C	B	B	A	B	C	D	E	F	E	E	E	E
94	3	22	E	E	E	E	E	E	F	E	D	B	A	A	A	A	A	A	C	D	E	E	E	E	E	E
94	3	23	E	E	E	E	E	E	E	D	D	A	A	A	A	A	A	C	D	D	D	D	D	D	D	D
94	3	24	D	D	D	D	D	D	D	B	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E	E
94	3	25	E	E	E	E	E	F	F	E	D	C	D	C	B	C	C	C	D	D	D	D	D	D	D	D
94	3	26	D	E	F	E	F	E	E	E	D	D	D	D	D	A	C	C	D	D	E	E	E	E	E	E
94	3	27	F	F	F	F	F	E	E	E	D	B	A	B	B	B	B	B	D	D	D	E	E	E	E	D
94	3	28	D	E	E	E	E	D	D	D	D	D	C	D	C	C	D	D	D	E	F	F	E	E	E	E
94	3	29	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F
94	3	30	F	F	E	E	E	E	E	E	D	D	D	C	C	B	B	C	D	D	E	F	F	F	F	F
94	3	31	F	F	F	F	F	F	F	E	D	C	B	B	A	A	A	B	D	D	E	G	G	G	G	G

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

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
94	4	1	-	-	-	-	-	-	-	-	-	D	D	C	B	B	B	B	C	D	E	G	G	G	G	G
94	4	2	G	G	G	G	F	F	E	D	C	C	C	B	B	C	C	D	D	D	D	E	E	E	E	E
94	4	3	E	E	E	E	F	F	F	D	C	C	C	C	A	A	A	A	B	D	E	E	E	E	E	E
94	4	4	E	E	E	E	E	E	E	D	D	C	B	A	A	A	A	B	D	D	E	D	D	D	D	D
94	4	5	D	D	D	D	D	D	D	D	C	C	B	A	A	C	C	B	D	D	D	D	D	D	D	D
94	4	6	D	D	D	D	D	D	D	D	B	A	B	B	B	B	B	D	D	D	E	F	G	G	G	G
94	4	7	G	G	G	G	F	F	F	D	C	A	A	A	A	B	C	D	D	D	D	D	D	E	E	E
94	4	8	E	E	E	D	E	E	D	D	B	A	A	A	B	B	A	B	C	D	D	E	E	E	G	G
94	4	9	G	F	G	G	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	4	10	D	D	E	E	E	E	D	D	D	D	B	B	B	A	B	C	D	D	D	D	E	E	D	E
94	4	11	E	E	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D
94	4	12	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	4	13	D	D	D	D	D	E	E	D	D	C	C	B	A	A	A	C	D	D	E	E	F	F	G	G
94	4	14	G	G	G	G	G	G	G	F	D	C	B	B	A	A	A	C	D	D	E	D	D	D	D	D
94	4	15	D	D	D	D	D	E	D	D	D	B	C	A	A	B	B	C	D	D	E	E	F	G	G	G
94	4	16	G	F	E	E	F	E	E	D	D	C	B	A	A	A	A	C	D	E	G	G	G	G	G	G
94	4	17	G	G	G	G	G	F	F	D	D	C	A	A	A	A	A	C	D	E	E	E	E	E	E	E
94	4	18	E	E	E	E	E	E	D	B	A	A	A	A	A	A	A	B	D	D	E	F	E	D	D	D
94	4	19	E	E	D	D	D	D	D	D	B	D	A	A	A	A	A	A	A	A	D	D	E	F	E	E
94	4	20	E	E	E	E	E	E	D	-	-	-	-	-	-	-	-	D	D	D	D	D	D	D	D	D
94	4	21	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	D	D	D	D	D	E	E	E	E
94	4	22	E	E	E	E	E	E	D	C	B	B	B	A	A	A	A	C	D	D	E	E	E	F	F	F
94	4	23	E	E	E	E	E	F	D	D	B	A	A	-	-	-	-	A	A	C	D	D	D	E	E	D
94	4	24	E	E	D	E	E	E	D	B	A	-	-	-	-	-	-	A	B	D	D	E	E	D	D	E
94	4	25	E	E	D	D	D	D	D	B	A	-	-	-	-	-	-	A	B	B	D	D	E	E	D	D
94	4	26	E	E	E	E	E	E	D	B	A	A	A	A	A	A	A	B	D	D	D	D	D	D	D	D
94	4	27	D	D	D	D	D	D	C	A	A	B	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	4	28	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D
94	4	29	D	D	D	D	D	D	D	C	B	C	B	D	D	D	D	D	D	D	D	D	D	D	D	D
94	4	30	D	D	D	D	D	D	D	C	C	C	C	B	C	C	D	D	D	D	D	D	D	E	E	E
94	5	1	E	E	E	E	F	F	E	D	D	C	C	B	B	C	D	D	D	D	D	D	D	D	D	D
94	5	2	D	D	D	D	D	D	D	D	D	C	B	C	D	D	D	D	D	D	D	D	D	D	D	D
94	5	3	D	D	D	E	E	E	D	D	C	B	C	B	A	B	C	D	D	D	D	D	E	E	E	E
94	5	4	E	E	E	E	E	E	E	D	D	C	C	B	B	B	C	D	D	E	E	F	F	G	G	G
94	5	5	F	E	F	G	G	G	G	E	E	D	A	A	A	A	A	A	C	D	E	E	E	E	E	D
94	5	6	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	5	7	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	E	E	F	G	G	G
94	5	8	G	G	F	F	F	F	E	D	D	C	D	B	C	D	D	D	C	D	D	E	E	F	F	F
94	5	9	F	F	F	F	F	F	E	D	D	D	D	C	B	A	B	C	D	D	E	F	G	G	G	G
94	5	10	G	G	G	G	G	G	G	F	D	D	D	D	A	A	A	A	B	C	D	E	F	E	E	E
94	5	11	E	E	E	E	E	E	D	D	C	B	A	A	A	A	B	C	D	D	E	E	E	F	F	F
94	5	12	F	F	E	E	E	F	E	D	D	D	C	C	C	C	C	D	D	D	E	E	E	E	E	F
94	5	13	F	F	E	E	E	E	D	D	D	A	B	C	A	A	A	A	D	D	D	D	D	D	D	D
94	5	14	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	G
94	5	15	F	F	F	E	E	E	E	E	D	D	C	A	B	A	A	A	A	B	A	D	D	G	G	G

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

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
94	5	16	G	G	F	F	F	E	E	D	B	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
94	5	17	E	E	E	E	E	D	D	C	B	A	A	A	A	A	A	A	A	C	D	D	-	-	-	E
94	5	18	E	E	E	E	E	E	D	C	B	B	A	A	A	A	A	A	A	B	D	E	E	E	E	F
94	5	19	F	F	F	F	F	F	D	C	B	B	A	A	A	A	A	A	B	C	D	E	E	F	F	E
94	5	20	E	E	F	F	F	F	E	D	A	A	A	A	A	A	A	A	A	B	D	E	E	E	E	E
94	5	21	E	E	E	E	E	E	E	D	B	A	A	A	A	A	A	A	A	B	D	E	E	F	F	F
94	5	22	E	E	E	E	E	E	D	C	B	B	A	A	A	A	A	A	A	B	D	E	E	E	E	E
94	5	23	E	E	E	E	E	E	C	B	-	-	-	-	-	-	-	-	A	C	D	E	E	E	E	F
94	5	24	F	E	E	E	E	E	D	D	D	C	C	A	A	A	B	C	C	D	E	F	F	F	F	F
94	5	25	F	E	E	F	F	G	E	D	B	C	A	A	A	A	D	D	D	D	D	E	E	E	F	F
94	5	26	F	E	E	E	E	D	D	D	C	B	A	A	C	B	A	B	B	D	D	E	F	F	F	F
94	5	27	F	F	F	F	F	F	E	D	A	A	A	A	A	A	A	A	A	B	D	D	E	E	E	E
94	5	28	E	E	E	E	E	E	D	C	A	A	A	A	-	-	-	-	A	B	D	D	D	D	D	D
94	5	29	D	D	D	D	D	D	D	D	C	C	C	D	D	C	B	B	A	C	D	D	D	D	D	E
94	5	30	E	E	E	E	E	E	D	C	B	B	A	-	-	-	-	A	A	B	D	D	E	E	E	F
94	5	31	G	E	E	D	D	D	D	D	C	D	B	B	C	D	C	C	D	D	E	E	E	E	E	E
94	6	1	D	D	D	D	E	E	D	D	D	C	B	C	C	C	D	B	D	D	D	D	D	D	D	D
94	6	2	D	D	D	D	D	D	D	D	D	C	B	D	D	D	D	D	D	D	D	D	D	D	D	D
94	6	3	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	E
94	6	4	E	D	D	D	D	D	D	C	B	A	B	A	B	A	A	B	C	D	D	D	D	D	D	D
94	6	5	D	D	D	D	D	D	D	D	D	A	A	B	D	C	C	C	C	D	E	E	E	E	E	E
94	6	6	E	F	F	E	E	E	E	E	D	B	B	B	B	B	D	C	C	C	D	E	E	F	F	E
94	6	7	E	E	E	E	E	E	E	D	D	D	D	E	E	E	E	D	D	D	D	D	E	E	E	G
94	6	8	E	E	D	D	D	D	D	D	D	D	D	D	C	C	D	C	D	D	D	D	D	D	D	D
94	6	9	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	E	E	E	E	F
94	6	10	F	F	F	F	F	F	E	D	D	C	D	C	C	C	B	C	D	D	E	F	E	D	E	E
94	6	11	E	E	E	E	E	D	D	D	C	C	B	C	D	C	D	E	D	D	D	D	E	E	E	F
94	6	12	E	E	E	E	F	E	D	D	C	D	B	A	A	A	A	A	C	D	D	E	E	E	E	E
94	6	13	E	E	E	E	E	E	E	D	C	B	B	B	B	A	A	B	C	D	D	D	D	D	D	D
94	6	14	D	D	D	D	D	D	D	D	C	A	A	A	A	A	B	C	D	D	D	D	D	D	D	D
94	6	15	D	D	D	D	D	D	D	B	A	A	A	A	A	A	C	D	D	D	D	E	E	E	E	D
94	6	16	D	D	D	D	D	D	D	C	B	A	A	A	A	A	B	B	C	D	E	E	E	E	E	E
94	6	17	E	D	D	D	D	D	D	B	A	A	A	A	A	A	A	A	C	D	E	F	E	E	E	E
94	6	18	E	D	D	D	E	D	C	C	C	B	D	C	D	D	D	D	D	D	E	E	E	E	E	E
94	6	19	E	E	E	E	F	F	E	D	C	C	D	B	C	B	A	A	B	D	D	D	E	E	E	E
94	6	20	E	E	E	E	E	E	D	C	B	C	C	D	B	B	B	B	C	D	E	E	E	D	E	E
94	6	21	E	F	E	E	E	D	D	D	C	C	C	B	D	D	C	D	D	E	F	F	F	F	F	E
94	6	22	E	E	E	D	D	D	D	D	D	D	D	D	C	D	B	D	B	D	D	D	D	D	D	D
94	6	23	B	A	A	A	C	C	B	C	C	C	D	C	D	D	D	D	D	D	D	E	F	F	F	F
94	6	24	F	F	F	E	F	F	E	C	D	C	C	D	C	D	C	D	D	F	G	G	G	G	G	F
94	6	25	F	G	F	F	E	F	D	D	D	D	C	D	D	D	B	B	D	E	D	D	E	D	E	D
94	6	26	E	E	E	E	E	E	D	D	C	B	A	A	A	A	B	B	D	D	E	F	G	G	G	G
94	6	27	G	F	E	E	E	E	D	B	B	B	D	D	D	C	D	C	D	E	G	G	G	G	G	G
94	6	28	G	G	G	E	G	G	E	D	D	D	C	C	C	D	D	D	D	E	F	G	G	G	G	G
94	6	29	G	F	E	E	E	E	D	D	C	B	B	B	B	C	C	D	D	E	E	F	G	G	G	G

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 10M WIND VS 60-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

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
94	6	30	G	G	F	F	F	F	E	D	C	B	-	-	-	-	-	-	-	B	D	E	F	F	E	E

JFDs of 100-Meter Wind vs. Delta T

January-March 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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 AT 100.00 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	1	0	0	0	0	0	1	0	0	1	1	2	0	0	0	5	11
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	3
>24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
TOTAL	1	0	0	0	0	0	1	0	2	1	1	2	0	0	0	8	16

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 AT 100.00 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	3	0	0	0	0	0	0	0	0	4	2	0	0	0	0	1	10
12.51-18.50	7	1	0	0	0	0	3	1	2	1	6	2	0	0	1	8	32
18.51-24.00	0	0	0	0	0	0	1	1	0	1	3	0	0	0	1	5	12
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	2	5
TOTAL	10	1	0	0	0	0	4	2	2	6	11	3	0	2	2	16	59

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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 AT 100.00 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	7	2	1	0	1	1	1	1	0	1	1	1	0	0	0	0	17
7.51-12.50	14	1	0	0	0	0	1	3	1	9	3	0	4	3	1	2	42
12.51-18.50	5	1	0	0	0	1	10	0	3	3	5	2	1	1	14	14	60
18.51-24.00	2	0	0	0	0	0	2	3	0	1	1	0	0	0	5	5	19
>24.00	2	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	5
TOTAL	30	4	1	0	1	2	14	7	6	14	10	3	5	5	20	21	143

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 AT 100.00 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	1	3	1	1	1	5	2	3	2	1	0	1	0	1	1	25
3.51- 7.50	22	13	13	17	12	13	15	8	15	8	20	11	8	4	5	11	195
7.51-12.50	51	28	19	7	21	26	16	13	11	18	9	11	10	19	21	25	305
12.51-18.50	61	36	14	13	4	20	31	21	14	9	15	4	9	10	57	90	408
18.51-24.00	20	12	4	13	4	7	10	19	6	1	1	1	1	3	33	70	205
>24.00	5	0	0	0	0	0	2	2	11	2	0	0	1	7	11	28	69
TOTAL	161	90	53	51	42	67	79	65	60	40	46	27	30	43	128	225	1207

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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 AT 100.00 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	0	0	1	0	1	0	0	1	2	0	1	0	0	1	1	9
3.51- 7.50	6	6	3	4	2	2	2	2	6	3	4	1	4	3	1	5	54
7.51-12.50	5	15	2	5	4	11	10	14	8	11	15	5	9	13	6	17	150
12.51-18.50	17	8	1	1	0	2	14	15	12	10	30	7	7	11	19	22	176
18.51-24.00	4	0	0	0	0	0	8	5	8	4	2	3	3	4	7	6	54
>24.00	0	0	0	0	0	0	1	2	21	2	0	0	0	2	3	1	32
TOTAL	33	29	6	11	6	16	35	38	56	32	51	17	23	33	37	52	475

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 AT 100.00 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	0	1	0	0	1	1	1	0	0	0	2	1	0	0	0	8
3.51- 7.50	0	0	3	1	2	2	3	4	1	1	3	1	0	1	0	1	23
7.51-12.50	1	0	0	0	0	2	7	5	4	11	8	2	2	3	1	9	55
12.51-18.50	0	0	0	0	0	0	4	3	15	8	7	11	8	1	4	14	75
18.51-24.00	0	0	0	0	0	0	3	2	3	1	2	0	0	2	2	1	16
>24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	4	0	6
TOTAL	2	0	4	1	2	5	18	15	25	21	20	16	11	7	11	25	183

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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 AT 100.00 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	1	1	0	1	0	1	0	0	0	5
3.51- 7.50	0	0	0	1	1	2	1	1	0	0	3	1	0	0	2	0	12
7.51-12.50	0	0	0	0	0	0	4	1	2	4	0	1	3	2	0	0	17
12.51-18.50	0	0	0	0	0	0	2	2	3	2	1	7	2	0	0	0	19
18.51-24.00	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
TOTAL	0	1	0	1	1	2	8	5	6	6	5	9	7	4	3	0	58

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 AT 100.00 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	4	2	1	3	6	4	5	4	2	3	3	0	2	2	47
3.51- 7.50	35	21	20	23	18	20	22	16	22	13	31	15	12	8	8	17	301
7.51-12.50	74	44	21	12	25	39	38	36	26	57	37	19	28	40	29	54	579
12.51-18.50	91	46	15	14	4	23	65	42	49	34	65	35	27	23	95	153	781
18.51-24.00	26	12	4	13	4	7	25	30	18	8	9	4	5	9	49	89	312
>24.00	7	0	0	0	0	0	3	4	37	4	0	1	1	14	18	32	121
TOTAL	237	125	64	64	52	92	159	132	157	120	144	77	76	94	201	347	2141

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-MAR 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 3/31/94

*** JAN-MAR 1994 ***

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: 2160

TOTAL NUMBER OF VALID OBSERVATIONS: 2141

TOTAL NUMBER OF MISSING OBSERVATIONS: 19

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.1 %

MEAN WIND SPEED FOR THIS PERIOD: 13.8 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
0.75	2.76	6.68	56.38	22.19	8.55	2.71

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	1	0	0	0	0	0	1	0	2	1	1	2	0	0	0	8	0
B	10	1	0	0	0	0	4	2	2	6	11	3	0	2	2	16	0
C	30	4	1	0	1	2	14	7	6	14	10	3	5	5	20	21	0
D	161	90	53	51	42	67	79	65	60	40	46	27	30	43	128	225	0
E	33	29	6	11	6	16	35	38	56	32	51	17	23	33	37	52	0
F	2	0	4	1	2	5	18	15	25	21	20	16	11	7	11	25	0
G	0	1	0	1	1	2	8	5	6	6	5	9	7	4	3	0	0
TOTAL	237	125	64	64	52	92	159	132	157	120	144	77	76	94	261	347	0

JFDs of 100-Meter Wind vs. Delta T

April-June 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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 AT 100.00 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	3
12.51-18.50	0	2	1	0	0	0	0	8	8	3	0	1	0	0	0	0	23
18.51-24.00	0	0	0	0	0	0	0	4	4	2	0	0	0	0	0	0	10
>24.00	0	0	0	0	0	0	0	2	3	0	1	3	0	0	0	0	9
TOTAL	0	3	1	0	0	0	0	14	16	5	1	4	0	0	1	0	45

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 AT 100.00 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	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	4
7.51-12.50	4	1	0	0	0	0	2	6	7	8	2	0	1	0	1	1	33
12.51-18.50	2	0	0	1	0	0	7	17	8	2	4	1	2	2	0	0	46
18.51-24.00	2	0	0	0	1	1	3	4	5	6	0	0	1	1	2	0	26
>24.00	0	0	0	0	0	0	1	5	5	0	1	1	0	0	4	0	17
TOTAL	9	1	1	1	1	1	13	33	25	17	7	2	4	3	7	1	126

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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 AT 100.00 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	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	3	2	2	1	0	0	0	0	1	3	0	0	2	2	1	1	18
7.51-12.50	9	2	1	1	0	0	7	12	6	8	6	1	3	0	4	4	64
12.51-18.50	5	0	4	2	2	0	8	13	7	6	2	1	3	2	1	3	59
18.51-24.00	4	0	0	1	0	2	1	3	7	6	2	2	1	1	1	1	32
>24.00	1	0	0	0	0	0	0	2	12	3	0	1	1	0	4	1	25
TOTAL	22	4	7	6	2	2	16	30	33	26	10	5	10	5	11	10	199

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 AT 100.00 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	9	3	3	2	0	1	0	2	4	2	1	0	2	0	0	2	31
3.51- 7.50	11	9	11	11	10	11	13	14	10	13	6	3	5	3	4	5	139
7.51-12.50	21	10	15	19	9	11	20	36	23	12	9	7	2	4	7	19	224
12.51-18.50	27	17	18	14	17	9	28	28	30	16	3	4	2	8	16	18	255
18.51-24.00	9	9	7	6	9	7	5	5	34	12	2	3	3	17	12	11	151
>24.00	11	1	0	3	2	1	1	9	40	3	0	0	6	10	8	3	98
TOTAL	88	49	54	55	47	40	67	94	141	58	21	17	20	42	47	58	898

PROGRAM: JFD VERSION: 5P
 NPPD-COOPEX NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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 AT 100.00 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	0	1	4	0	0	0	1	0	0	1	1	0	0	0	0	0	5
3.51- 7.50	1	2	6	1	6	5	4	8	10	8	3	1	0	4	3	1	63
7.51-12.50	16	11	18	17	13	13	11	24	31	22	5	2	4	4	4	14	209
12.51-18.50	27	12	12	8	4	11	20	33	31	19	14	1	2	6	5	12	217
18.51-24.00	3	1	4	4	5	0	7	17	20	8	6	3	0	0	2	1	81
>24.00	2	1	1	0	0	0	3	0	5	2	2	0	2	1	0	0	19
TOTAL	49	28	42	30	28	29	46	82	97	60	31	7	8	15	14	28	595

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 AT 100.00 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	1	0	1	2	0	1	0	2	1	0	0	0	0	0	10
3.51- 7.50	1	1	1	1	2	5	3	6	3	2	2	3	0	2	1	6	39
7.51-12.50	5	4	4	1	0	2	11	8	10	7	3	2	2	2	0	7	68
12.51-18.50	3	3	0	1	0	1	7	13	8	0	0	1	0	7	1	8	53
18.51-24.00	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	3
>24.00	0	0	0	0	0	0	1	0	0	0	0	0	4	1	0	0	6
TOTAL	10	9	6	3	3	10	23	28	21	11	6	7	7	12	2	21	179

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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 AT 100.00 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	1	0	0	0	4
3.51- 7.50	1	0	0	0	0	0	6	2	6	3	3	2	2	2	2	3	32
7.51-12.50	1	0	0	0	0	3	4	3	2	4	1	1	6	1	0	0	26
12.51-18.50	0	0	0	0	0	2	1	0	2	0	0	4	3	2	5	0	19
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
TOTAL	2	0	1	0	0	5	12	6	10	7	4	7	17	6	7	3	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 AT 100.00 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	10	5	6	3	1	3	2	4	4	5	3	0	3	0	0	2	51
3.51- 7.50	18	14	21	14	18	21	26	31	30	30	14	9	9	13	11	16	295
7.51-12.50	56	29	38	38	22	29	55	89	80	61	26	13	18	11	17	45	627
12.51-18.50	64	34	35	26	23	23	71	112	94	46	23	13	12	27	28	41	672
18.51-24.00	18	10	11	11	15	10	17	33	70	34	10	9	9	20	17	13	307
>24.00	14	2	1	3	2	1	6	18	65	8	4	5	15	12	16	4	176
TOTAL	180	94	112	95	81	87	177	287	343	184	80	49	66	83	89	121	2129

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T APR-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 4/ 1/94 - 6/30/94

*** APR-JUN 1994 ***

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: 2129

TOTAL NUMBER OF MISSING OBSERVATIONS: 55

PERCENT DATA RECOVERY FOR THIS PERIOD: 97.5 %

MEAN WIND SPEED FOR THIS PERIOD: 14.0 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
2.11	5.92	9.35	42.18	27.95	8.41	4.09

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	3	1	0	0	0	0	14	16	5	1	4	0	0	1	0	0
B	9	1	1	1	1	1	13	33	25	17	7	2	4	3	7	1	0
C	22	4	7	6	2	2	16	30	33	26	10	5	10	5	11	10	0
D	88	49	54	55	47	46	67	94	141	58	21	17	20	42	47	58	0
E	49	28	42	30	28	29	46	82	97	60	31	7	8	15	14	28	1
F	10	9	6	3	3	10	23	28	21	11	6	7	7	12	2	21	0
G	2	0	1	0	0	5	12	6	10	7	4	7	17	6	7	3	0
TOTAL	180	94	112	95	81	87	177	287	343	184	80	49	66	83	89	121	1

JFDs of 100-Meter Wind vs. Delta T

January-June 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	3
12.51-18.50	1	2	1	0	0	0	1	8	8	4	1	3	0	0	0	5	34
18.51-24.00	0	0	0	0	0	0	0	4	5	2	0	0	0	0	0	2	13
>24.00	0	0	0	0	0	0	0	2	4	0	1	3	0	0	0	1	11
TOTAL	1	3	1	0	0	0	1	14	18	6	2	6	0	0	1	8	61

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	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	4
7.51-12.50	7	1	0	0	0	0	2	6	7	12	4	0	1	0	1	2	43
12.51-18.50	9	1	0	1	0	0	10	18	10	3	10	3	2	2	1	8	78
18.51-24.00	2	0	0	0	1	1	4	5	5	7	3	0	1	1	3	5	38
>24.00	0	0	0	0	0	0	1	5	5	0	1	2	0	2	4	2	22
TOTAL	19	2	1	1	1	1	17	35	27	23	18	5	4	5	9	17	185

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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 AT 100.00 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	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	10	4	3	1	1	1	1	1	1	4	1	1	2	2	1	1	35
7.51-12.50	23	3	1	1	0	0	8	15	7	17	9	1	7	3	5	6	106
12.51-18.50	10	1	4	2	2	1	18	13	10	9	7	3	4	3	15	17	119
18.51-24.00	6	0	0	1	0	2	3	6	7	7	3	2	1	1	6	6	51
>24.00	3	0	0	0	0	0	0	2	14	3	0	1	1	1	4	1	30
TOTAL	52	8	8	6	3	4	30	37	39	40	20	8	15	10	31	31	342

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 AT 100.00 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	11	4	6	3	1	2	5	4	7	4	2	0	3	0	1	3	56
3.51- 7.50	53	22	24	28	22	24	28	22	25	21	26	14	13	7	9	16	334
7.51-12.50	72	38	34	26	30	37	36	49	34	30	18	18	12	23	28	44	529
12.51-18.50	88	53	32	27	21	29	59	49	44	25	18	8	11	18	73	108	663
18.51-24.00	29	21	11	19	13	14	15	24	40	13	3	4	4	20	45	81	356
>24.00	16	1	0	3	2	1	3	11	51	5	0	0	7	17	19	31	167
TOTAL	249	139	107	106	89	107	146	159	201	98	67	44	50	85	175	283	2195

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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																	1
1.01- 3.50	1	1	1	1	0	1	1	0	1	3	1	1	0	0	1	1	14
3.51- 7.50	7	8	9	5	8	7	6	10	16	11	7	2	4	7	4	6	117
7.51-12.50	21	26	20	22	17	24	21	38	39	33	20	7	13	17	10	31	359
12.51-18.50	44	20	13	9	4	13	34	48	43	29	44	8	9	17	24	34	393
18.51-24.00	7	1	4	4	5	0	15	22	28	12	8	6	3	4	9	7	135
>24.00	2	1	1	0	0	0	4	2	26	4	2	0	2	3	3	1	51
TOTAL	82	57	48	41	34	45	81	120	153	92	82	24	31	48	51	80	1070

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	2	1	2	0	1	3	1	2	0	2	1	2	1	0	0	0	18
3.51- 7.50	1	1	4	2	4	7	6	10	4	3	5	4	0	3	1	7	62
7.51-12.50	6	4	4	1	0	4	18	13	14	18	11	4	4	5	1	16	123
12.51-18.50	3	3	0	1	0	1	11	16	23	8	7	12	8	8	5	22	128
18.51-24.00	0	0	0	0	0	0	4	2	3	1	2	1	1	2	2	1	15
>24.00	0	0	0	0	0	0	1	0	2	0	0	0	4	1	4	0	12
TOTAL	12	9	10	4	5	15	41	43	46	32	26	23	18	19	13	46	362

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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 FFEQUENCY 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	0	1	2	1	0	1	0	2	0	0	0	9
3.51- 7.50	1	0	0	1	1	2	7	3	6	3	6	3	2	2	4	3	44
7.51-12.50	1	0	0	0	0	3	8	4	4	8	1	2	9	3	0	0	43
12.51-18.50	0	0	0	0	0	2	3	2	5	2	1	11	5	2	5	0	38
18.51-24.00	0	0	0	0	0	0	1	0	0	0	0	0	4	1	1	0	7
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4
TOTAL	2	1	1	1	1	7	20	11	16	13	9	16	24	10	10	3	145

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																	1
1.01- 3.50	14	7	10	5	2	6	8	8	9	9	5	3	6	0	2	4	98
3.51- 7.50	53	35	41	37	36	41	48	47	52	43	45	24	21	21	19	33	596
7.51-12.50	130	73	59	50	47	68	93	125	106	118	63	32	46	51	46	99	1206
12.51-18.50	155	80	50	40	27	46	136	154	143	80	88	48	39	50	123	194	1453
18.51-24.00	44	22	15	24	19	17	42	63	88	42	19	13	14	29	66	102	619
>24.00	21	2	1	3	2	1	9	22	102	12	4	6	16	26	34	36	297
TOTAL	417	219	176	159	133	179	336	419	500	304	224	126	142	177	290	468	4270

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

*** JAN-JUN 1994 ***

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: 4344

TOTAL NUMBER OF VALID OBSERVATIONS: 4270

TOTAL NUMBER OF MISSING OBSERVATIONS: 74

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.3 %

MEAN WIND SPEED FOR THIS PERIOD: 13.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.43	4.33	8.01	49.30	25.06	8.48	3.40

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	1	3	1	0	0	0	1	14	18	6	2	6	0	0	1	8	0
B	19	2	1	1	1	1	17	35	27	23	18	5	4	5	9	17	0
C	52	8	8	6	3	4	30	37	39	40	20	8	15	10	31	31	0
D	249	139	107	106	89	107	146	159	201	98	67	44	50	85	175	283	0
E	82	57	48	41	34	45	81	120	153	92	82	24	31	48	51	80	1
F	12	9	10	4	5	15	41	43	46	32	26	23	18	19	13	46	0
G	2	1	1	1	1	7	20	11	16	13	9	16	24	10	10	3	0
TOTAL	417	219	176	159	133	179	336	419	500	304	224	126	142	177	290	468	1

Stability Classes by Hour of Day

100-Meter Wind vs. Delta T

January-June 1994

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

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
94	1	1	E	E	E	D	D	D	D	D	D	D	D	C	C	D	D	D	D	E	E	F	E	F	F	F
94	1	2	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	5	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
94	1	6	E	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D	D
94	1	7	D	D	D	D	D	D	D	D	D	D	C	D	C	D	D	D	D	D	D	D	D	D	D	D
94	1	8	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	D	D
94	1	9	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	E	E	E	E
94	1	10	E	E	D	D	E	E	D	E	E	D	D	D	D	D	D	D	D	E	F	F	E	D	D	D
94	1	11	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	E	E	E	D	D	D	D
94	1	12	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	E	F	F	F	F	F	F
94	1	13	E	E	E	E	E	E	D	D	D	D	D	C	C	C	C	D	D	D	D	D	D	D	D	D
94	1	14	D	D	D	D	D	D	D	D	D	D	D	C	B	C	C	D	D	D	D	D	E	D	D	D
94	1	15	D	D	D	D	D	D	D	D	D	D	C	C	C	C	D	D	D	D	D	D	D	D	D	D
94	1	16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	17	D	D	D	D	D	D	E	D	-	C	D	C	D	D	D	D	D	D	D	D	D	D	D	D
94	1	18	D	D	D	D	E	D	D	D	D	C	C	C	C	D	D	D	D	E	D	D	D	D	D	D
94	1	19	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	20	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	E	E	F	F	F	F	F
94	1	21	F	E	E	E	E	E	E	E	D	D	D	D	C	C	D	D	D	E	F	F	F	F	F	E
94	1	22	E	F	F	F	F	E	E	E	E	D	D	D	C	C	D	D	D	E	E	F	F	F	G	F
94	1	23	G	F	F	E	E	E	E	E	E	D	D	C	C	C	D	D	D	E	E	F	E	E	F	F
94	1	24	F	F	F	F	F	E	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
94	1	25	E	E	E	E	E	E	E	E	E	D	D	D	C	C	D	D	D	D	D	D	D	D	D	D
94	1	26	D	D	D	D	D	D	D	D	D	D	D	D	-	D	D	D	D	D	D	D	D	D	D	D
94	1	27	D	D	D	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	1	28	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
94	1	29	E	D	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	D
94	1	30	D	D	D	D	D	D	D	D	D	C	B	B	B	B	C	D	D	D	D	D	D	D	D	D
94	1	31	D	D	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	D	D	D
94	2	1	D	D	C	D	D	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	E	E
94	2	2	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	3	D	E	E	E	F	E	E	E	E	D	D	D	D	D	-	D	D	E	E	D	D	D	D	D
94	2	4	D	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F
94	2	5	F	F	E	E	F	E	E	E	E	D	D	D	C	C	D	D	D	E	E	E	E	E	E	E
94	2	6	E	E	E	E	E	F	E	F	E	D	D	C	B	C	C	C	D	D	D	D	D	D	D	D
94	2	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	8	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	9	D	D	D	D	D	D	D	D	D	C	C	C	C	D	D	D	D	D	D	D	D	E	E	E
94	2	10	E	E	E	E	E	E	E	E	D	D	C	C	C	C	C	D	D	D	E	F	F	G	F	F
94	2	11	G	F	G	F	F	F	F	F	E	D	D	D	B	C	C	C	D	D	D	D	D	D	D	D
94	2	12	D	D	D	E	E	E	D	D	D	D	B	A	D	A	C	B	D	D	D	D	D	D	E	E
94	2	13	E	F	F	F	F	F	F	E	F	D	B	B	A	A	B	D	D	E	E	G	F	F	F	F
94	2	14	E	E	E	E	E	E	E	E	E	D	B	C	B	B	E	C	D	D	E	E	-	-	-	-

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

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
94	2	15	F	F	F	F	F	E	F	F	E	D	C	C	C	C	C	D	D	D	E	F	F	F	G	F
94	2	16	F	F	F	F	F	F	F	E	E	D	D	C	B	B	C	D	D	E	E	F	F	F	E	F
94	2	17	F	F	E	E	E	E	E	E	E	D	D	D	D	C	D	C	D	D	E	F	F	-	-	-
94	2	18	E	E	E	E	E	E	E	D	D	D	D	D	C	D	C	D	D	D	E	D	D	D	D	E
94	2	19	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	20	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	E	D	D
94	2	21	D	D	D	D	D	D	D	D	D	D	C	C	C	-	D	D	D	D	D	D	D	D	D	D
94	2	22	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	-	-	-
94	2	24	F	F	F	F	F	F	F	E	E	D	D	C	C	C	C	D	D	D	D	D	D	D	D	D
94	2	25	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
94	2	26	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D
94	2	27	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	2	28	D	D	D	D	D	E	E	E	D	D	D	D	D	-	-	-	D	D	D	D	D	D	D	D
94	3	1	D	D	E	D	D	E	E	E	D	D	D	D	E	D	D	D	D	E	E	F	F	G	G	G
94	3	2	G	G	F	F	F	G	G	G	F	E	D	D	D	D	D	D	D	E	E	F	F	F	F	G
94	3	3	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	E	F	G	F	E	E	E
94	3	4	E	F	F	F	F	F	F	E	E	E	D	D	D	C	D	D	D	E	E	G	G	G	G	G
94	3	5	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	E	E	E	E	E	E	E	E
94	3	6	E	E	E	E	E	E	E	E	D	D	D	C	B	D	D	D	D	D	D	D	D	D	D	D
94	3	7	D	D	D	D	D	D	E	D	D	C	B	B	B	B	B	D	D	D	D	D	D	D	D	D
94	3	8	E	E	E	E	E	E	E	E	D	D	C	B	B	B	C	D	D	D	E	E	D	D	D	D
94	3	9	D	D	E	E	E	E	E	E	D	D	D	C	D	C	D	D	D	D	E	E	E	E	E	E
94	3	10	E	F	F	-	F	E	E	E	D	D	D	C	C	B	A	B	D	D	E	E	E	E	D	D
94	3	11	D	D	D	D	D	D	D	D	D	C	C	B	B	C	D	D	D	E	E	E	E	E	E	F
94	3	12	F	E	E	E	E	E	E	E	E	D	D	C	D	D	D	D	-	E	E	E	E	E	E	E
94	3	13	E	F	F	G	G	G	F	F	E	D	D	D	D	C	C	D	D	E	E	F	F	G	G	G
94	3	14	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
94	3	15	E	F	F	G	F	F	F	E	D	D	B	B	A	A	B	B	C	D	E	E	E	E	E	E
94	3	16	E	E	E	E	E	E	E	E	D	C	C	B	A	B	B	C	D	D	E	E	E	D	D	D
94	3	17	D	D	D	E	E	E	E	E	D	D	C	C	B	C	C	D	D	E	E	D	D	D	E	E
94	3	18	F	F	G	G	G	G	E	E	D	C	B	C	C	C	C	C	D	D	E	F	G	G	G	G
94	3	19	G	F	F	F	E	E	E	E	D	D	D	C	A	A	B	B	D	D	E	F	G	F	F	F
94	3	20	F	F	F	G	F	F	F	F	E	D	D	B	C	B	D	D	D	D	D	D	D	D	D	D
94	3	21	E	E	F	F	F	E	E	D	D	D	D	C	C	C	B	C	D	D	E	E	E	E	E	E
94	3	22	E	E	E	E	E	E	E	E	D	C	C	B	A	A	B	B	D	D	E	E	E	E	E	E
94	3	23	E	E	E	E	E	E	E	D	D	C	B	B	B	B	B	C	D	D	D	D	D	D	D	D
94	3	24	D	D	D	D	D	D	D	C	B	A	A	A	A	A	B	C	D	D	E	E	E	E	E	E
94	3	25	E	E	E	D	E	E	E	D	D	D	D	C	C	D	C	D	D	D	D	D	D	D	D	D
94	3	26	D	E	E	E	E	E	E	E	D	D	D	D	B	D	D	D	D	D	E	E	D	E	E	E
94	3	27	E	F	E	F	E	E	E	E	D	C	B	C	C	C	C	C	D	D	E	E	E	E	D	D
94	3	28	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
94	3	29	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F
94	3	30	F	F	F	E	E	E	E	E	D	D	D	C	C	C	C	C	D	D	E	E	F	F	E	F
94	3	31	E	E	F	F	F	F	F	E	D	D	C	C	B	B	B	B	D	D	E	F	G	G	G	G

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

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
94 4 1	-	-	-	-	-	-	-	-	-	D	D	C	C	C	C	C	D	D	E	F	G	G	G	G
94 4 2	G	G	G	G	E	E	E	D	D	D	D	C	C	C	D	D	D	D	D	D	D	E	E	E
94 4 3	E	E	E	E	E	E	F	E	D	D	D	C	C	B	B	B	C	D	D	E	E	E	E	E
94 4 4	E	E	E	E	E	E	E	D	D	C	C	B	C	B	B	C	D	D	D	D	D	D	D	D
94 4 5	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D
94 4 6	D	D	D	D	D	D	D	C	B	C	C	C	C	C	C	C	D	D	D	E	F	F	G	G
94 4 7	G	G	G	F	F	F	F	E	D	B	A	A	A	C	C	D	D	D	D	D	E	E	E	E
94 4 8	E	D	D	D	D	D	D	C	B	B	B	C	C	C	C	C	D	D	D	E	E	F	G	G
94 4 9	G	G	G	G	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94 4 10	D	E	E	E	E	E	D	D	D	D	C	B	C	B	C	D	D	D	D	D	E	E	E	E
94 4 11	E	E	D	E	D	D	D	D	E	E	E	D	D	D	D	D	D	D	E	D	D	E	E	D
94 4 12	D	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94 4 13	D	D	D	D	E	E	E	D	D	D	D	B	B	B	B	C	D	D	E	E	F	F	G	G
94 4 14	G	G	G	G	G	G	G	F	E	D	C	B	B	B	B	B	D	D	D	E	D	D	D	D
94 4 15	D	D	D	D	D	D	D	D	C	C	B	B	C	C	C	D	D	D	D	E	E	F	F	G
94 4 16	G	G	F	F	F	F	E	D	D	C	C	B	B	B	B	C	D	D	E	F	G	G	G	G
94 4 17	G	G	G	G	G	G	F	E	D	C	C	A	B	B	A	C	D	D	E	E	E	E	E	E
94 4 18	E	E	E	E	E	E	E	D	C	C	C	B	B	B	C	C	D	D	D	E	F	E	D	D
94 4 19	E	E	D	D	D	D	D	D	C	D	C	C	A	A	A	A	B	C	B	D	D	E	F	E
94 4 20	E	E	E	E	E	E	D	-	-	-	-	-	-	-	-	D	D	D	D	D	E	D	D	D
94 4 21	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	E
94 4 22	E	E	E	E	E	E	E	D	D	C	C	B	B	B	B	C	D	D	D	E	E	E	E	F
94 4 23	F	E	E	F	F	E	D	D	C	B	B	-	-	-	-	B	C	D	D	D	D	D	E	D
94 4 24	E	E	D	E	D	E	D	D	D	B	-	-	-	-	-	C	C	D	D	D	D	D	D	D
94 4 25	D	D	D	D	D	D	D	C	C	-	-	-	-	-	A	C	C	D	E	E	E	D	D	E
94 4 26	E	D	E	E	E	D	D	D	C	B	A	A	A	A	B	C	C	D	D	D	D	D	D	D
94 4 27	D	D	D	D	D	D	D	C	B	B	C	D	D	D	D	D	D	D	D	D	D	D	D	D
94 4 28	D	D	E	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D
94 4 29	D	D	D	D	D	D	D	C	C	C	B	D	D	D	D	D	D	D	D	D	D	D	D	D
94 4 30	D	D	E	D	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E
94 5 1	E	E	E	E	E	F	E	D	D	D	D	C	B	C	D	D	D	D	D	D	D	D	D	D
94 5 2	D	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	D	D
94 5 3	D	D	D	E	E	E	D	D	D	D	C	C	C	B	C	D	D	D	D	D	D	D	E	D
94 5 4	E	E	E	E	E	E	D	D	D	D	D	C	C	C	C	D	D	D	E	E	F	F	F	F
94 5 5	F	F	F	G	G	G	G	G	E	D	C	A	A	A	A	B	C	D	D	E	E	E	E	E
94 5 6	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
94 5 7	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F
94 5 8	F	G	F	F	F	F	E	D	D	D	D	C	D	D	D	D	D	D	D	E	E	F	F	F
94 5 9	F	F	F	F	F	F	E	D	D	D	D	C	B	C	D	D	D	D	F	G	G	G	G	G
94 5 10	G	G	G	G	G	G	F	D	D	D	D	B	B	B	B	B	C	D	D	E	E	E	E	E
94 5 11	E	E	E	E	E	E	D	D	D	C	C	B	B	B	B	C	D	D	E	E	E	F	F	F
94 5 12	F	F	E	E	E	E	E	D	D	D	D	C	C	D	D	D	D	D	E	E	E	E	E	F
94 5 13	F	F	E	E	E	E	D	D	D	B	C	D	C	A	A	B	D	D	D	D	D	D	D	D
94 5 14	D	D	D	E	E	E	E	E	D	E	E	E	D	D	D	D	D	D	E	E	F	F	G	G
94 5 15	F	F	F	E	E	E	E	E	D	C	C	C	C	B	C	A	B	C	D	E	F	G	G	G

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/94 - 6/30/94

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

			HOURLY STABILITIES																							
			HOURS																							
YR	MM	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
94	5	16	G	G	F	F	F	E	E	D	D	C	B	A	A	A	A	B	C	D	D	E	E	E	E	E
94	5	17	E	E	E	E	E	E	D	D	C	B	A	A	A	B	B	C	D	D	D	-	-	-	-	E
94	5	18	E	E	E	E	E	E	D	D	C	C	B	B	B	B	C	C	D	D	D	E	E	E	E	F
94	5	19	F	F	F	F	F	F	D	D	C	C	B	B	B	B	C	C	D	D	E	E	F	F	E	E
94	5	20	F	E	F	F	F	F	E	D	C	B	B	A	A	A	B	B	B	C	D	E	E	E	E	E
94	5	21	E	E	E	E	E	E	E	D	C	B	B	A	A	A	A	B	D	D	E	E	F	F	E	E
94	5	22	E	E	E	E	E	E	E	D	C	C	A	B	B	B	B	C	D	D	E	E	E	E	E	E
94	5	23	E	E	E	E	E	E	E	D	D	-	-	-	-	-	-	-	C	D	D	E	E	E	E	E
94	5	24	E	E	E	E	E	E	D	D	D	D	D	C	B	C	C	D	D	D	E	E	F	F	F	F
94	5	25	E	E	E	F	F	F	E	D	D	D	C	B	B	A	D	E	D	D	C	E	E	E	E	E
94	5	26	F	E	E	E	E	D	D	D	D	C	C	B	D	D	B	C	D	D	D	E	E	F	F	E
94	5	27	F	F	F	F	F	F	E	D	C	C	B	B	B	B	B	B	C	C	D	D	E	E	E	E
94	5	28	E	E	E	E	E	E	D	D	B	B	A	A	-	-	-	-	C	D	D	D	D	D	D	D
94	5	29	D	D	E	E	E	E	D	D	D	D	D	D	D	D	C	C	D	D	D	D	E	E	E	E
94	5	30	E	E	E	E	E	E	E	D	D	C	B	-	-	-	-	B	B	C	D	E	E	E	E	E
94	5	31	F	E	E	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	E	E	E	E	E
94	6	1	E	E	D	E	E	E	D	E	D	C	B	C	D	D	D	C	D	D	D	D	D	D	D	E
94	6	2	F	F	F	F	F	F	F	F	F	E	E	E	D	D	D	D	D	D	E	E	E	E	E	D
94	6	3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E
94	6	4	E	E	D	D	D	D	D	D	D	C	B	C	B	C	C	B	C	D	D	D	E	E	E	E
94	6	5	E	E	E	E	E	E	F	F	E	D	D	D	D	D	C	D	D	D	D	E	E	E	E	E
94	6	6	E	E	F	F	F	E	E	D	D	C	C	C	D	D	D	D	D	D	E	E	F	E	E	E
94	6	7	E	E	E	E	E	E	E	D	D	D	E	E	E	E	E	D	D	D	D	E	E	E	E	F
94	6	8	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
94	6	9	E	E	E	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
94	6	10	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	F	E	E	E
94	6	11	E	E	E	E	E	E	E	D	D	D	C	C	D	D	D	E	E	E	D	D	E	E	E	F
94	6	12	E	E	F	F	F	F	E	D	D	D	C	B	B	B	B	B	D	D	D	E	E	E	E	E
94	6	13	E	E	E	E	E	E	E	D	D	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D
94	6	14	D	D	D	D	D	D	D	D	C	B	A	B	C	C	C	D	D	D	D	D	D	D	D	D
94	6	15	D	D	D	D	D	D	D	C	C	B	C	C	B	C	C	D	D	D	D	D	E	E	D	D
94	6	16	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	D	D	D	E	E	E	E	E	E
94	6	17	E	E	D	D	D	D	D	C	C	B	A	A	A	B	B	C	D	D	E	F	E	E	E	E
94	6	18	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	E	E	E	E	E	E
94	6	19	E	E	E	E	E	E	E	D	D	D	D	B	D	D	B	B	D	D	E	E	E	E	E	E
94	6	20	E	E	E	E	E	E	E	D	D	D	D	D	D	C	D	D	D	D	D	E	E	E	D	E
94	6	21	E	G	F	E	E	D	D	D	D	D	D	C	D	D	D	D	D	D	E	E	F	F	F	E
94	6	22	E	E	E	E	E	E	E	D	D	D	D	D	D	D	C	D	C	D	D	D	E	E	E	E
94	6	23	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	E	F
94	6	24	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	G
94	6	25	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	D	D	E	E	E
94	6	26	E	E	F	E	E	E	D	D	C	C	B	C	C	C	D	D	D	D	E	F	F	F	G	G
94	6	27	G	G	F	F	E	E	E	D	C	C	D	D	D	D	D	D	D	D	E	F	F	F	G	G
94	6	28	G	G	G	F	G	G	E	E	D	D	D	D	D	D	D	D	D	D	E	E	G	G	G	G
94	6	29	G	F	F	E	E	E	E	D	D	D	C	C	C	D	D	D	D	D	E	E	F	F	G	G

PROGRAM: JFD VERSION: 5P
 NPPD-COOPER NUCLEAR STATION JFD: 100M WIND VS 100-10M DELTA-T JAN-JUN 1994
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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
94 6 30	G	G	F	G	F	F	F	D	D	C	-	-	-	-	-	-	-	D	D	E	F	F	E	E

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 and 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 1994.

Atmospheric Diffusion Estimates

Ground Level Releases

January-March 1994

VENTS GROUND LEVEL RELEASES - JAN-MAR 1994
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	5.900E-05	1.994E-05	1.061E-05	5.291E-06	2.112E-06	1.139E-06	7.198E-07	5.013E-07	3.727E-07	2.902E-07	2.341E-07
SSW	2.880E-05	9.824E-06	5.235E-06	2.612E-06	1.038E-06	5.578E-07	3.514E-07	2.441E-07	1.810E-07	1.407E-07	1.132E-07
SW	1.795E-05	6.234E-06	3.312E-06	1.646E-06	6.515E-07	3.490E-07	2.194E-07	1.521E-07	1.126E-07	8.738E-08	7.024E-08
WSW	9.494E-06	3.422E-06	1.856E-06	9.265E-07	3.592E-07	1.895E-07	1.176E-07	8.068E-08	5.919E-08	4.557E-08	3.637E-08
W	1.046E-05	3.615E-06	1.923E-06	9.562E-07	3.775E-07	2.018E-07	1.267E-07	8.770E-08	6.486E-08	5.029E-08	4.040E-08
WNW	1.356E-05	4.921E-06	2.672E-06	1.333E-06	5.164E-07	2.723E-07	1.690E-07	1.159E-07	8.506E-08	6.548E-08	5.226E-08
NW	4.114E-05	1.330E-05	6.956E-06	3.469E-06	1.415E-06	7.746E-07	4.950E-07	3.479E-07	2.606E-07	2.042E-07	1.656E-07
NNW	5.169E-05	1.622E-05	8.399E-06	4.191E-06	1.738E-06	9.617E-07	6.197E-07	4.383E-07	3.301E-07	2.599E-07	2.116E-07
N	7.106E-05	2.192E-05	1.173E-05	5.971E-06	2.481E-06	1.374E-06	8.852E-07	6.262E-07	4.715E-07	3.712E-07	3.022E-07
NNE	4.803E-05	1.505E-05	7.973E-06	4.023E-06	1.661E-06	9.160E-07	5.887E-07	4.156E-07	3.124E-07	2.456E-07	1.997E-07
NE	2.386E-05	7.879E-06	4.203E-06	2.108E-06	8.497E-07	4.613E-07	2.930E-07	2.049E-07	1.528E-07	1.194E-07	9.649E-08
ENE	1.627E-05	5.372E-06	2.836E-06	1.416E-06	5.756E-07	3.143E-07	2.005E-07	1.407E-07	1.053E-07	8.245E-08	6.681E-08
E	1.657E-05	5.507E-06	3.029E-06	1.541E-06	6.183E-07	3.344E-07	2.118E-07	1.477E-07	1.099E-07	8.564E-08	6.910E-08
ESE	2.137E-05	6.997E-06	3.763E-06	1.896E-06	7.636E-07	4.142E-07	2.629E-07	1.837E-07	1.369E-07	1.069E-07	8.638E-08
SE	3.281E-05	1.113E-05	5.920E-06	2.953E-06	1.179E-06	6.360E-07	4.020E-07	2.799E-07	2.081E-07	1.620E-07	1.307E-07
SSE	3.771E-05	1.309E-05	7.032E-06	3.504E-06	1.367E-06	7.246E-07	4.518E-07	3.112E-07	2.291E-07	1.770E-07	1.417E-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	1.939E-07	1.001E-07	6.513E-08	3.758E-08	2.558E-08	1.902E-08	1.495E-08	1.221E-08	1.025E-08	8.792E-09	7.666E-09
SSW	9.362E-08	4.794E-08	3.099E-08	1.773E-08	1.198E-08	8.861E-09	6.936E-09	5.644E-09	4.725E-09	4.041E-09	3.516E-09
SW	5.802E-08	2.958E-08	1.906E-08	1.085E-08	7.302E-09	5.384E-09	4.204E-09	3.413E-09	2.852E-09	2.436E-09	2.116E-09
WSW	2.984E-08	1.482E-08	9.363E-09	5.176E-09	3.410E-09	2.471E-09	1.901E-09	1.524E-09	1.260E-09	1.065E-09	9.165E-10
W	3.334E-08	1.695E-08	1.091E-08	6.193E-09	4.165E-09	3.069E-09	2.395E-09	1.944E-09	1.624E-09	1.386E-09	1.204E-09
WNW	4.288E-08	2.129E-08	1.346E-08	7.441E-09	4.904E-09	3.555E-09	2.736E-09	2.194E-09	1.813E-09	1.533E-09	1.319E-09
NW	1.379E-07	7.254E-08	4.779E-08	2.807E-08	1.932E-08	1.449E-08	1.148E-08	9.430E-09	7.960E-09	6.858E-09	6.005E-09
NNW	1.768E-07	9.417E-08	6.259E-08	3.718E-08	2.580E-08	1.947E-08	1.549E-08	1.278E-08	1.082E-08	9.351E-09	8.209E-09
N	2.524E-07	1.343E-07	8.912E-08	5.282E-08	3.658E-08	2.755E-08	2.188E-08	1.802E-08	1.524E-08	1.315E-08	1.153E-08
NNE	1.667E-07	8.841E-08	5.858E-08	3.465E-08	2.396E-08	1.804E-08	1.432E-08	1.179E-08	9.968E-09	8.600E-09	7.539E-09
NE	8.012E-08	4.169E-08	2.726E-08	1.584E-08	1.083E-08	8.083E-09	6.372E-09	5.216E-09	4.388E-09	3.770E-09	3.292E-09
ENE	5.558E-08	2.913E-08	1.915E-08	1.121E-08	7.699E-09	5.765E-09	4.558E-09	3.740E-09	3.153E-09	2.714E-09	2.374E-09
E	5.727E-08	2.958E-08	1.924E-08	1.109E-08	7.529E-09	5.587E-09	4.384E-09	3.574E-09	2.997E-09	2.566E-09	2.234E-09
ESE	7.169E-08	3.724E-08	2.432E-08	1.411E-08	9.641E-09	7.190E-09	5.665E-09	4.635E-09	3.898E-09	3.347E-09	2.922E-09
SE	1.082E-07	5.585E-08	3.630E-08	2.092E-08	1.422E-08	1.056E-08	8.293E-09	6.768E-09	5.679E-09	4.868E-09	4.243E-09
SSE	1.166E-07	5.868E-08	3.747E-08	2.106E-08	1.408E-08	1.032E-08	8.021E-09	6.487E-09	5.401E-09	4.598E-09	3.982E-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	1.032E-05	2.386E-06	7.441E-07	3.780E-07	2.358E-07	1.054E-07	3.837E-08	1.914E-08	1.225E-08	8.807E-09
SSW	5.089E-06	1.174E-06	3.635E-07	1.837E-07	1.141E-07	5.056E-08	1.812E-08	8.923E-09	5.663E-09	4.049E-09
SW	3.221E-06	7.380E-07	2.270E-07	1.143E-07	7.079E-08	3.122E-08	1.110E-08	5.423E-09	3.425E-09	2.441E-09
WSW	1.791E-06	4.098E-07	1.220E-07	6.014E-08	3.668E-08	1.573E-08	5.322E-09	2.493E-09	1.531E-09	1.068E-09
W	1.869E-06	4.280E-07	1.311E-07	6.584E-08	4.072E-08	1.791E-08	6.339E-09	3.092E-09	1.951E-09	1.389E-09
WNW	2.576E-06	5.894E-07	1.753E-07	8.642E-08	5.270E-08	2.261E-08	7.650E-09	3.587E-09	2.203E-09	1.537E-09
NW	6.816E-06	1.587E-06	5.107E-07	2.641E-07	1.668E-07	7.607E-08	2.856E-08	1.457E-08	9.455E-09	6.868E-09
NNW	8.267E-06	1.938E-06	6.383E-07	3.343E-07	2.130E-07	9.850E-08	3.777E-08	1.957E-08	1.281E-08	9.364E-09
N	1.144E-05	2.764E-06	9.118E-07	4.775E-07	3.042E-07	1.405E-07	5.367E-08	2.769E-08	1.807E-08	1.317E-08
NNE	7.790E-06	1.855E-06	6.067E-07	3.165E-07	2.011E-07	9.255E-08	3.522E-08	1.813E-08	1.182E-08	8.612E-09
NE	4.089E-06	9.567E-07	3.026E-07	1.549E-07	9.720E-08	4.382E-08	1.615E-08	8.132E-09	5.231E-09	3.776E-09
ENE	2.769E-06	6.462E-07	2.069E-07	1.067E-07	6.728E-08	3.057E-08	1.141E-08	5.798E-09	3.750E-09	2.718E-09
E	2.918E-06	6.971E-07	2.188E-07	1.114E-07	6.962E-08	3.114E-08	1.132E-08	5.624E-09	3.586E-09	2.571E-09
ESE	3.652E-06	8.600E-07	2.716E-07	1.389E-07	8.702E-08	3.915E-08	1.439E-08	7.233E-09	4.648E-09	3.353E-09
SE	5.758E-06	1.332E-06	4.156E-07	2.111E-07	1.317E-07	5.881E-08	2.136E-08	1.063E-08	6.789E-09	4.877E-09
SSE	6.811E-06	1.556E-06	4.683E-07	2.327E-07	1.429E-07	6.213E-08	2.160E-08	1.040E-08	6.512E-09	4.608E-09

VENTS GROUND LEVEL RELEASES - JAN-MAR 1994
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	5.890E-05	1.988E-05	1.056E-05	5.261E-06	2.093E-06	1.125E-06	7.088E-07	4.920E-07	3.645E-07	2.829E-07	2.274E-07		
SSW	2.875E-05	9.795E-06	5.213E-06	2.597E-06	1.029E-06	5.509E-07	3.459E-07	2.394E-07	1.770E-07	1.370E-07	1.099E-07		
SW	1.792E-05	6.216E-06	3.298E-06	1.637E-06	6.453E-07	3.449E-07	2.161E-07	1.493E-07	1.102E-07	8.523E-08	6.828E-08		
WSW	9.485E-06	3.416E-06	1.851E-06	9.231E-07	3.572E-07	1.880E-07	1.165E-07	7.976E-08	5.840E-08	4.487E-08	3.574E-08		
W	1.045E-05	3.606E-06	1.916E-06	9.516E-07	3.746E-07	1.998E-07	1.250E-07	8.631E-08	6.365E-08	4.920E-08	3.940E-08		
WNW	1.355E-05	4.914E-06	2.666E-06	1.329E-06	5.141E-07	2.706E-07	1.677E-07	1.149E-07	8.413E-08	6.466E-08	5.152E-08		
NW	4.106E-05	1.326E-05	6.921E-06	3.446E-06	1.401E-06	7.637E-07	4.862E-07	3.404E-07	2.539E-07	1.983E-07	1.601E-07		
NNW	5.159E-05	1.616E-05	8.355E-06	4.162E-06	1.719E-06	9.477E-07	6.083E-07	4.286E-07	3.215E-07	2.522E-07	2.045E-07		
N	7.092E-05	2.183E-05	1.167E-05	5.926E-06	2.452E-06	1.353E-06	8.682E-07	6.117E-07	4.587E-07	3.597E-07	2.916E-07		
NNE	4.794E-05	1.590E-05	7.931E-06	3.994E-06	1.643E-06	9.027E-07	5.780E-07	4.065E-07	3.044E-07	2.384E-07	1.931E-07		
NE	2.382E-05	7.854E-06	4.184E-06	2.095E-06	8.415E-07	4.553E-07	2.881E-07	2.008E-07	1.492E-07	1.161E-07	9.354E-08		
ENE	1.624E-05	5.354E-06	2.822E-06	1.407E-06	5.697E-07	3.099E-07	1.970E-07	1.377E-07	1.027E-07	8.009E-08	6.465E-08		
E	1.654E-05	5.492E-06	3.017E-06	1.532E-06	6.132E-07	3.307E-07	2.088E-07	1.452E-07	1.077E-07	8.369E-08	6.733E-08		
ESE	2.134E-05	6.980E-06	3.749E-06	1.887E-06	7.578E-07	4.099E-07	2.594E-07	1.808E-07	1.344E-07	1.046E-07	8.428E-08		
SE	3.277E-05	1.110E-05	5.901E-06	2.940E-06	1.171E-06	6.303E-07	3.973E-07	2.760E-07	2.046E-07	1.590E-07	1.278E-07		
SSE	3.767E-05	1.307E-05	7.013E-06	3.492E-06	1.359E-06	7.192E-07	4.475E-07	3.076E-07	2.260E-07	1.742E-07	1.392E-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	1.878E-07	9.530E-08	6.093E-08	3.397E-08	2.235E-08	1.608E-08	1.224E-08	9.682E-09	7.882E-09	6.559E-09	5.552E-09		
SSW	9.058E-08	4.557E-08	2.894E-08	1.597E-08	1.042E-08	7.445E-09	5.632E-09	4.432E-09	3.591E-09	2.974E-09	2.507E-09		
SW	5.621E-08	2.817E-08	1.785E-08	9.813E-09	6.383E-09	4.550E-09	3.436E-09	2.700E-09	2.184E-09	1.807E-09	1.522E-09		
WSW	2.927E-08	1.438E-08	8.998E-09	4.873E-09	3.146E-09	2.234E-09	1.683E-09	1.324E-09	1.073E-09	8.895E-10	7.511E-10		
W	3.243E-08	1.624E-08	1.029E-08	5.664E-09	3.694E-09	2.641E-09	2.001E-09	1.577E-09	1.280E-09	1.063E-09	8.977E-10		
WNW	4.221E-08	2.079E-08	1.303E-08	7.083E-09	4.591E-09	3.273E-09	2.478E-09	1.955E-09	1.589E-09	1.322E-09	1.120E-09		
NW	1.328E-07	6.848E-08	4.423E-08	2.497E-08	1.654E-08	1.196E-08	9.128E-09	7.240E-09	5.906E-09	4.922E-09	4.172E-09		
NNW	1.702E-07	8.888E-08	5.793E-08	3.312E-08	2.215E-08	1.612E-08	1.239E-08	9.876E-09	8.095E-09	6.776E-09	5.767E-09		
N	2.426E-07	1.265E-07	8.234E-08	4.695E-08	3.131E-08	2.274E-08	1.744E-08	1.388E-08	1.136E-08	9.490E-09	8.064E-09		
NNE	1.605E-07	8.351E-08	5.428E-08	3.092E-08	2.062E-08	1.498E-08	1.149E-08	9.149E-09	7.490E-09	6.263E-09	5.325E-09		
NE	7.738E-08	3.954E-08	2.539E-08	1.424E-08	9.397E-09	6.775E-09	5.164E-09	4.091E-09	3.334E-09	2.777E-09	2.352E-09		
ENE	5.358E-08	2.755E-08	1.776E-08	1.000E-08	6.618E-09	4.777E-09	3.644E-09	2.887E-09	2.353E-09	1.959E-09	1.659E-09		
E	5.565E-08	2.833E-08	1.816E-08	1.017E-08	6.718E-09	4.853E-09	3.709E-09	2.947E-09	2.410E-09	2.014E-09	1.712E-09		
ESE	6.974E-08	3.570E-08	2.298E-08	1.296E-08	8.608E-09	6.246E-09	4.791E-09	3.820E-09	3.132E-09	2.624E-09	2.236E-09		
SE	1.056E-07	5.377E-08	3.449E-08	1.935E-08	1.280E-08	9.266E-09	7.095E-09	5.648E-09	4.626E-09	3.872E-09	3.298E-09		
SSE	1.143E-07	5.690E-08	3.593E-08	1.976E-08	1.293E-08	9.277E-09	7.060E-09	5.593E-09	4.564E-09	3.809E-09	3.236E-09		

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

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	1.028E-05	2.367E-06	7.331E-07	3.699E-07	2.292E-07	1.006E-07	3.480E-08	1.622E-08	9.726E-09	6.578E-09
SSW	5.068E-06	1.165E-06	3.580E-07	1.796E-07	1.106E-07	4.818E-08	1.639E-08	7.514E-09	4.454E-09	2.983E-09
SW	3.208E-06	7.323E-07	2.237E-07	1.119E-07	6.883E-08	2.981E-08	1.007E-08	4.593E-09	2.714E-09	1.813E-09
WSW	1.786E-06	4.078E-07	1.209E-07	5.935E-08	3.605E-08	1.530E-08	5.022E-09	2.257E-09	1.331E-09	8.926E-10
W	1.863E-06	4.251E-07	1.295E-07	6.462E-08	3.972E-08	1.719E-08	5.816E-09	2.666E-09	1.585E-09	1.066E-09
WNW	2.571E-06	5.870E-07	1.740E-07	8.549E-08	5.196E-08	2.210E-08	7.296E-09	3.306E-09	1.965E-09	1.326E-09
NW	6.784E-06	1.572E-06	5.019E-07	2.574E-07	1.613E-07	7.200E-08	2.551E-08	1.205E-08	7.271E-09	4.936E-09
NNW	8.226E-06	1.919E-06	6.269E-07	3.257E-07	2.059E-07	9.319E-08	3.376E-08	1.623E-08	9.914E-09	6.793E-09
N	1.137E-05	2.735E-06	8.948E-07	4.647E-07	2.937E-07	1.327E-07	4.787E-08	2.291E-08	1.394E-08	9.515E-09
NNE	7.752E-06	1.836E-06	5.960E-07	3.084E-07	1.945E-07	8.763E-08	3.153E-08	1.509E-08	9.186E-09	6.279E-09
NE	4.071E-06	9.483E-07	2.978E-07	1.513E-07	9.425E-08	4.166E-08	1.456E-08	6.830E-09	4.109E-09	2.785E-09
ENE	2.756E-06	6.402E-07	2.034E-07	1.041E-07	6.512E-08	2.898E-08	1.022E-08	4.815E-09	2.908E-09	1.964E-09
E	2.907E-06	6.918E-07	2.158E-07	1.093E-07	6.785E-08	2.988E-08	1.041E-08	4.893E-09	2.960E-09	2.019E-09
ESE	3.639E-06	8.541E-07	2.681E-07	1.363E-07	8.492E-08	3.761E-08	1.325E-08	6.294E-09	3.835E-09	2.631E-09
SE	5.741E-06	1.324E-06	4.109E-07	2.076E-07	1.288E-07	5.672E-08	1.980E-08	9.341E-09	5.672E-09	3.883E-09
SSE	6.795E-06	1.549E-06	4.640E-07	2.296E-07	1.403E-07	6.033E-08	2.032E-08	9.363E-09	5.620E-09	3.821E-09

VENTS GROUND LEVEL RELEASES - JAN-MAR 1994
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	5.581E-05	1.820E-05	9.443E-06	4.624E-06	1.789E-06	9.398E-07	5.805E-07	3.961E-07	2.890E-07	2.212E-07	1.755E-07				
SSW	2.724E-05	8.964E-06	4.660E-06	2.283E-06	8.795E-07	4.603E-07	2.834E-07	1.928E-07	1.403E-07	1.072E-07	8.468E-08				
SW	1.698E-05	5.688E-06	2.947E-06	1.438E-06	5.519E-07	2.880E-07	1.770E-07	1.292E-07	8.732E-08	6.661E-08	5.268E-08				
WSW	8.983E-06	3.124E-06	1.653E-06	8.102E-07	3.046E-07	1.565E-07	9.501E-08	6.388E-08	4.601E-08	3.483E-08	2.736E-08				
W	9.899E-06	3.299E-06	1.712E-06	8.359E-07	3.199E-07	1.666E-07	1.022E-07	6.934E-08	5.034E-08	3.837E-08	3.033E-08				
WNW	1.283E-05	4.492E-06	2.379E-06	1.166E-06	4.380E-07	2.251E-07	1.366E-07	9.185E-08	6.617E-08	5.009E-08	3.935E-08				
NW	3.891E-05	1.213E-05	6.190E-06	3.031E-06	1.198E-06	6.388E-07	3.990E-07	2.746E-07	2.018E-07	1.555E-07	1.240E-07				
NNW	4.890E-05	1.480E-05	7.473E-06	3.661E-06	1.471E-06	7.930E-07	4.993E-07	3.459E-07	2.556E-07	1.978E-07	1.584E-07				
N	6.721E-05	1.999E-05	1.044E-05	5.215E-06	2.100E-06	1.132E-06	7.131E-07	4.941E-07	3.650E-07	2.824E-07	2.262E-07				
NNE	4.543E-05	1.373E-05	7.094E-06	3.514E-06	1.406E-06	7.553E-07	4.744E-07	3.280E-07	2.420E-07	1.870E-07	1.496E-07				
NE	2.257E-05	7.189E-06	3.741E-06	1.842E-06	7.197E-07	3.805E-07	2.362E-07	1.618E-07	1.184E-07	9.091E-08	7.231E-08				
ENE	1.539E-05	4.901E-06	2.524E-06	1.237E-06	4.874E-07	2.592E-07	1.616E-07	1.111E-07	8.156E-08	6.277E-08	5.004E-08				
E	1.567E-05	5.025E-06	2.696E-06	1.347E-06	5.239E-07	2.760E-07	1.708E-07	1.167E-07	8.525E-08	6.531E-08	5.186E-08				
ESE	2.022E-05	6.385E-06	3.349E-06	1.657E-06	6.471E-07	3.420E-07	2.121E-07	1.452E-07	1.063E-07	8.155E-08	6.485E-08				
SE	3.104E-05	1.016E-05	5.271E-06	2.581E-06	9.996E-07	5.253E-07	3.245E-07	2.215E-07	1.616E-07	1.237E-07	9.818E-08				
SSE	3.568E-05	1.195E-05	6.261E-06	3.064E-06	1.159E-06	5.987E-07	3.650E-07	2.464E-07	1.781E-07	1.353E-07	1.066E-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	1.432E-07	6.959E-08	4.292E-08	2.269E-08	1.435E-08	1.000E-08	7.417E-09	5.738E-09	4.579E-09	3.743E-09	3.117E-09
SSW	6.913E-08	3.330E-08	2.041E-08	1.069E-08	6.713E-09	4.654E-09	3.434E-09	2.646E-09	2.104E-09	1.714E-09	1.423E-09
SW	4.286E-08	2.056E-08	1.256E-08	6.550E-09	4.098E-09	2.833E-09	2.086E-09	1.604E-09	1.274E-09	1.036E-09	8.595E-10
WSW	2.212E-08	1.036E-08	6.219E-09	3.163E-09	1.945E-09	1.327E-09	9.676E-10	7.381E-10	5.822E-10	4.710E-10	3.889E-10
W	2.466E-08	1.180E-08	7.203E-09	3.751E-09	2.347E-09	1.623E-09	1.195E-09	9.199E-10	7.308E-10	5.950E-10	4.938E-10
WNW	3.182E-08	1.491E-08	8.957E-09	4.561E-09	2.810E-09	1.920E-09	1.401E-09	1.070E-09	8.453E-10	6.848E-10	5.660E-10
NW	1.017E-07	5.029E-08	3.139E-08	1.686E-08	1.077E-08	7.563E-09	5.639E-09	4.383E-09	3.511E-09	2.878E-09	2.404E-09
NNW	1.304E-07	6.529E-08	4.111E-08	2.234E-08	1.439E-08	1.017E-08	7.625E-09	5.953E-09	4.787E-09	3.938E-09	3.299E-09
N	1.860E-07	9.304E-08	5.851E-08	3.172E-08	2.039E-08	1.438E-08	1.076E-08	8.390E-09	6.738E-09	5.536E-09	4.632E-09
NNE	1.229E-07	6.131E-08	3.849E-08	2.083E-08	1.338E-08	9.433E-09	7.057E-09	5.500E-09	4.417E-09	3.629E-09	3.037E-09
NE	5.913E-08	2.894E-08	1.794E-08	9.547E-09	6.064E-09	4.241E-09	3.152E-09	2.443E-09	1.953E-09	1.598E-09	1.333E-09
ENE	4.100E-08	2.021E-08	1.259E-08	6.740E-09	4.298E-09	3.014E-09	2.245E-09	1.743E-09	1.395E-09	1.143E-09	9.542E-10
E	4.234E-08	2.060E-08	1.271E-08	6.721E-09	4.251E-09	2.964E-09	2.198E-09	1.701E-09	1.359E-09	1.111E-09	9.262E-10
ESE	5.302E-08	2.593E-08	1.607E-08	8.556E-09	5.442E-09	3.812E-09	2.838E-09	2.203E-09	1.764E-09	1.446E-09	1.208E-09
SE	8.012E-08	3.894E-08	2.403E-08	1.271E-08	8.046E-09	5.615E-09	4.168E-09	3.229E-09	2.581E-09	2.112E-09	1.762E-09
SSE	8.642E-08	4.100E-08	2.487E-08	1.285E-08	8.016E-09	5.531E-09	4.069E-09	3.129E-09	2.485E-09	2.023E-09	1.680E-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	9.246E-06	2.042E-06	6.025E-07	2.937E-07	1.771E-07	7.410E-08	2.348E-08	1.013E-08	5.776E-09	3.759E-09
SSW	4.560E-06	1.005E-06	2.943E-07	1.427E-07	8.565E-08	3.554E-08	1.108E-08	4.715E-09	2.665E-09	1.722E-09
SW	2.886E-06	6.316E-07	1.839E-07	8.882E-08	5.317E-08	2.196E-08	6.797E-09	2.871E-09	1.616E-09	1.041E-09
WSW	1.605E-06	3.511E-07	9.897E-08	4.686E-08	2.763E-08	1.113E-08	3.301E-09	1.348E-09	7.443E-10	4.735E-10
W	1.675E-06	3.664E-07	1.062E-07	5.121E-08	3.061E-08	1.262E-08	3.894E-09	1.645E-09	9.266E-10	5.978E-10

VENTS GROUND LEVEL RELEASES - JAN-MAR 1994

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
S	2.662E-07	9.003E-08	4.622E-08	2.198E-08	7.894E-09	3.915E-09	2.305E-09	1.509E-09	1.062E-09	7.871E-10	6.065E-10
SSW	1.207E-07	4.080E-08	2.095E-08	9.959E-09	3.577E-09	1.774E-09	1.045E-09	6.840E-10	4.813E-10	3.567E-10	2.749E-10
SW	7.167E-08	2.424E-08	1.244E-08	5.916E-09	2.125E-09	1.054E-09	6.205E-10	4.063E-10	2.859E-10	2.119E-10	1.633E-10
WSW	5.735E-08	1.939E-08	9.958E-09	4.734E-09	1.700E-09	8.433E-10	4.965E-10	3.251E-10	2.288E-10	1.695E-10	1.307E-10
W	5.424E-08	1.834E-08	9.418E-09	4.433E-09	1.608E-09	7.976E-10	4.696E-10	3.075E-10	2.164E-10	1.604E-10	1.236E-10
WNW	9.302E-08	3.145E-08	1.615E-08	7.78E-09	2.758E-09	1.368E-09	8.053E-10	5.273E-10	3.710E-10	2.750E-10	2.119E-10
NW	1.831E-07	6.191E-08	3.179E-08	1.511E-08	5.428E-09	2.692E-09	1.585E-09	1.038E-09	7.303E-10	5.412E-10	4.171E-10
NNW	1.629E-07	5.508E-08	2.828E-08	1.344E-08	4.829E-09	2.395E-09	1.410E-09	9.234E-10	6.497E-10	4.815E-10	3.711E-10
N	1.954E-07	6.606E-08	3.392E-08	1.613E-08	5.792E-09	2.872E-09	1.691E-09	1.107E-09	7.793E-10	5.775E-10	4.451E-10
NNE	1.585E-07	5.360E-08	2.752E-08	1.308E-08	4.700E-09	2.331E-09	1.372E-09	8.986E-10	6.323E-10	4.686E-10	3.611E-10
NE	1.055E-07	3.568E-08	1.832E-08	8.710E-09	3.129E-09	1.552E-09	9.136E-10	5.982E-10	4.209E-10	3.120E-10	2.404E-10
ENE	5.776E-08	1.953E-08	1.003E-08	4.767E-09	1.712E-09	8.492E-10	5.001E-10	3.274E-10	2.304E-10	1.707E-10	1.316E-10
E	6.959E-08	2.353E-08	1.208E-08	5.745E-09	2.063E-09	1.023E-09	6.025E-10	3.945E-10	2.776E-10	2.057E-10	1.586E-10
ESE	1.204E-07	4.073E-08	2.091E-08	9.942E-09	3.571E-09	1.771E-09	1.043E-09	6.828E-10	4.805E-10	3.561E-10	2.744E-10
SE	2.361E-07	7.985E-08	4.100E-08	1.949E-08	7.002E-09	3.472E-09	2.045E-09	1.339E-09	9.420E-10	6.981E-10	5.380E-10
SSE	3.733E-07	1.263E-07	6.482E-08	3.082E-08	1.107E-08	5.490E-09	3.232E-09	2.117E-09	1.489E-09	1.104E-09	8.506E-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
S	4.818E-10	2.141E-10	1.297E-10	6.554E-11	3.967E-11	2.660E-11	1.906E-11	1.431E-11	1.113E-11	8.888E-12	7.254E-12
SSW	2.184E-10	9.701E-11	5.876E-11	2.970E-11	1.798E-11	1.205E-11	8.637E-12	6.485E-12	5.042E-12	4.028E-12	3.288E-12
SW	1.297E-10	5.762E-11	3.491E-11	1.764E-11	1.068E-11	7.160E-12	5.130E-12	3.852E-12	2.995E-12	2.393E-12	1.953E-12
WSW	1.030E-10	4.611E-11	2.793E-11	1.412E-11	8.545E-12	5.729E-12	4.105E-12	3.083E-12	2.397E-12	1.915E-12	1.563E-12
W	9.817E-11	4.361E-11	2.642E-11	1.335E-11	8.082E-12	5.419E-12	3.883E-12	2.916E-12	2.267E-12	1.811E-12	1.478E-12
WNW	1.683E-10	7.479E-11	4.530E-11	2.290E-11	1.386E-11	9.292E-12	6.558E-12	5.000E-12	3.887E-12	3.105E-12	2.535E-12
NW	3.313E-10	1.472E-10	8.916E-11	4.507E-11	2.728E-11	1.829E-11	1.310E-11	9.840E-12	7.651E-12	6.112E-12	4.989E-12
NNW	2.948E-10	1.310E-10	7.932E-11	4.009E-11	2.427E-11	1.627E-11	1.166E-11	8.754E-12	6.807E-12	5.437E-12	4.438E-12
N	3.536E-10	1.571E-10	9.514E-11	4.809E-11	2.911E-11	1.952E-11	1.398E-11	1.050E-11	8.164E-12	6.522E-12	5.323E-12
NNE	2.869E-10	1.274E-10	7.720E-11	3.902E-11	2.362E-11	1.583E-11	1.135E-11	8.519E-12	6.624E-12	5.291E-12	4.319E-12
NE	1.910E-10	8.484E-11	5.139E-11	2.598E-11	1.572E-11	1.054E-11	7.553E-12	5.672E-12	4.410E-12	3.523E-12	2.875E-12
ENE	1.045E-10	4.644E-11	2.813E-11	1.422E-11	8.605E-12	5.770E-12	4.134E-12	3.104E-12	2.414E-12	1.928E-12	1.574E-12
E	1.260E-10	5.596E-11	3.389E-11	1.713E-11	1.037E-11	6.952E-12	4.982E-12	3.741E-12	2.909E-12	2.323E-12	1.896E-12
ESE	2.180E-10	9.684E-11	5.866E-11	2.965E-11	1.795E-11	1.203E-11	8.622E-12	6.474E-12	5.034E-12	4.021E-12	3.282E-12
SE	4.274E-10	1.899E-10	1.150E-10	5.813E-11	3.518E-11	2.359E-11	1.690E-11	1.269E-11	9.869E-12	7.883E-12	6.435E-12
SSE	6.757E-10	3.002E-10	1.818E-10	9.191E-11	5.563E-11	3.730E-11	2.672E-11	2.007E-11	1.560E-11	1.246E-11	1.017E-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
S	4.518E-08	9.254E-09	2.416E-09	1.085E-09	6.138E-10	2.361E-10	6.829E-11	2.707E-11	1.445E-11	8.946E-12
SSW	2.048E-08	4.194E-09	1.095E-09	4.917E-10	2.782E-10	1.070E-10	3.095E-11	1.227E-11	6.550E-12	4.054E-12
SW	1.216E-08	2.491E-09	6.504E-10	2.921E-10	1.652E-10	6.355E-11	1.830E-11	7.286E-12	3.891E-12	2.408E-12
WSW	9.733E-09	1.994E-09	5.204E-10	2.337E-10	1.322E-10	5.085E-11	1.471E-11	5.831E-12	3.114E-12	1.927E-12
W	9.206E-09	1.886E-09	4.922E-10	2.211E-10	1.251E-10	4.810E-11	1.391E-11	5.515E-12	2.945E-12	1.823E-12
WNW	1.579E-08	3.233E-09	8.441E-10	3.791E-10	2.145E-10	8.247E-11	2.386E-11	9.456E-12	5.050E-12	3.126E-12
NW	3.107E-08	6.364E-09	1.661E-09	7.461E-10	4.221E-10	1.623E-10	4.696E-11	1.861E-11	9.939E-12	6.152E-12
NNW	2.764E-08	5.662E-09	1.478E-09	6.638E-10	3.755E-10	1.444E-10	4.178E-11	1.658E-11	8.842E-12	5.473E-12
N	3.315E-08	6.791E-09	1.773E-09	7.962E-10	4.504E-10	1.732E-10	5.011E-11	1.986E-11	1.061E-11	6.564E-12
NNE	2.690E-08	5.510E-09	1.438E-09	6.460E-10	3.654E-10	1.405E-10	4.066E-11	1.611E-11	8.605E-12	5.326E-12
NE	1.791E-08	3.668E-09	9.576E-10	4.301E-10	2.433E-10	9.356E-11	2.707E-11	1.073E-11	5.729E-12	3.546E-12
ENE	9.802E-09	2.008E-09	5.241E-10	2.354E-10	1.332E-10	5.121E-11	1.481E-11	5.872E-12	3.136E-12	1.941E-12
E	1.181E-08	2.419E-09	6.316E-10	2.836E-10	1.605E-10	6.171E-11	1.785E-11	7.075E-12	3.778E-12	2.339E-12
ESE	2.044E-08	4.187E-09	1.093E-09	4.909E-10	2.777E-10	1.068E-10	3.090E-11	1.225E-11	6.539E-12	4.047E-12
SE	4.008E-08	8.209E-09	2.143E-09	9.624E-10	5.445E-10	2.094E-10	6.057E-11	2.401E-11	1.282E-11	7.935E-12
SSE	6.336E-08	1.298E-08	3.388E-09	1.522E-09	8.608E-10	3.310E-10	9.577E-11	3.796E-11	2.027E-11	1.255E-11

VENTS GROUND LEVEL RELEASES - JAN-MAR 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE		X/Q			D/Q (PER SQ.METER)
			(MILES)	(METERS)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	
					NO DECAY	2.260 DAY DECAY	8.000 DAY DECAY	
					UNDEPLETED	UNDEPLETED	DEPLETED	
A	SITE BOUNDARY	S	0.80	1287.	9.107E-06	9.066E-06	8.075E-06	3.931E-08
A	SITE BOUNDARY	SSW	0.82	1327.	4.168E-06	4.148E-06	3.688E-06	1.644E-08
A	SITE BOUNDARY	SW	0.98	1569.	1.746E-06	1.737E-06	1.529E-06	6.313E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.117E-06	1.113E-06	9.818E-07	5.785E-09
A	SITE BOUNDARY	W	0.91	1468.	1.193E-06	1.187E-06	1.049E-06	5.677E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.556E-06	1.552E-06	1.367E-06	9.063E-09
A	SITE BOUNDARY	NW	0.81	1307.	5.741E-06	5.711E-06	5.085E-06	2.596E-08
A	SITE BOUNDARY	NNW	0.69	1106.	9.637E-06	9.590E-06	8.618E-06	3.275E-08
A	SITE BOUNDARY	N	0.67	1086.	1.373E-05	1.366E-05	1.229E-05	4.050E-08
A	SITE BOUNDARY	NNE	0.60	965.	1.128E-05	1.123E-05	1.017E-05	3.982E-08
A	SITE BOUNDARY	NE	0.62	1005.	5.567E-06	5.545E-06	5.004E-06	2.492E-08
A	SITE BOUNDARY	ENE	0.59	945.	4.171E-06	4.154E-06	3.766E-06	1.502E-08
A	SITE BOUNDARY	E	0.53	845.	5.094E-06	5.079E-06	4.634E-06	2.173E-08
A	SITE BOUNDARY	ESE	0.54	865.	6.223E-06	6.206E-06	5.653E-06	3.620E-08
A	SITE BOUNDARY	SE	0.65	1046.	7.388E-06	7.368E-06	6.630E-06	5.214E-08
A	SITE BOUNDARY	SSE	0.81	1307.	5.813E-06	5.797E-06	5.152E-06	5.294E-08
A	NEAR. RESIDENCE	SW	1.30	2092.	8.977E-07	8.910E-07	7.695E-07	3.035E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	4.987E-07	4.963E-07	4.278E-07	2.428E-09
A	NEAR. RESIDENCE	W	1.00	1609.	9.562E-07	9.516E-07	8.359E-07	4.478E-09
A	NEAR. RESIDENCE	WNW	1.60	2575.	4.464E-07	4.443E-07	3.766E-07	2.353E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	4.460E-06	4.434E-06	3.924E-06	1.986E-08
A	NEAR. RESIDENCE	NNW	1.90	3058.	1.067E-06	1.052E-06	8.839E-07	2.710E-09
A	NEAR. RESIDENCE	N	3.00	4828.	6.262E-07	6.117E-07	4.941E-07	1.107E-09
A	NEAR. RESIDENCE	NNE	2.70	4345.	5.076E-07	4.976E-07	4.056E-07	1.147E-09
A	NEAR. RESIDENCE	ENE	1.70	2736.	4.409E-07	4.358E-07	3.693E-07	1.259E-09
A	NEAR. RESIDENCE	E	2.00	3219.	3.344E-07	3.307E-07	2.760E-07	1.023E-09
A	NEAR. RESIDENCE	ESE	2.75	4426.	2.176E-07	2.145E-07	1.738E-07	8.348E-10
A	NEAREST COW	NNW	3.50	5633.	3.300E-07	3.214E-07	2.556E-07	6.496E-10
A	NEAREST GARDEN	SW	1.30	2092.	8.977E-07	8.910E-07	7.695E-07	3.035E-09
A	NEAREST GARDEN	WSW	2.60	4184.	1.084E-07	1.073E-07	8.718E-08	4.531E-10
A	NEAREST GARDEN	WNW	1.60	2575.	4.464E-07	4.443E-07	3.766E-07	2.353E-09
A	NEAREST GARDEN	NW	1.90	3058.	8.607E-07	8.493E-07	7.134E-07	3.046E-09
A	NEAREST GARDEN	NNW	1.90	3058.	1.067E-06	1.052E-06	8.839E-07	2.710E-09
A	NEAREST GARDEN	N	3.00	4828.	6.262E-07	6.117E-07	4.941E-07	1.107E-09
A	NEAREST GARDEN	NNE	2.70	4345.	5.076E-07	4.976E-07	4.056E-07	1.147E-09
A	NEAREST GARDEN	ENE	1.70	2736.	4.409E-07	4.358E-07	3.693E-07	1.259E-09
A	NEAREST GARDEN	E	2.00	3219.	3.344E-07	3.307E-07	2.760E-07	1.023E-09
A	NEAREST GARDEN	ESE	2.40	3863.	2.852E-07	2.817E-07	2.312E-07	1.148E-09
A	NEAREST GARDEN	SE	2.20	3541.	5.216E-07	5.164E-07	4.268E-07	2.765E-09

Atmospheric Diffusion Estimates

Ground Level Releases

April-June 1994

VENTS GROUND LEVEL RELEASES - APR-JUN 1994
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)									DISTANCE IN MILES								
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	5.000	5.500	6.000	6.500	7.000	7.500	8.000
S	6.357E-05	2.036E-05	1.078E-05	5.416E-06	2.206E-06	1.206E-06	7.703E-07	5.410E-07	4.050E-07	3.173E-07	2.572E-07	2.173E-07	1.873E-07	1.623E-07	1.423E-07	1.273E-07	1.173E-07	1.073E-07
SSW	3.287E-05	1.124E-05	6.040E-06	3.020E-06	1.195E-06	6.406E-07	4.028E-07	2.794E-07	2.069E-07	1.606E-07	1.292E-07	1.092E-07	9.42E-08	8.12E-08	7.02E-08	6.12E-08	5.42E-08	4.82E-08
SW	2.010E-05	7.171E-06	3.851E-06	1.914E-06	7.449E-07	3.944E-07	2.457E-07	1.690E-07	1.244E-07	9.600E-08	7.679E-08	6.479E-08	5.579E-08	4.879E-08	4.329E-08	3.879E-08	3.479E-08	3.129E-08
WSW	1.817E-05	6.443E-06	3.435E-06	1.697E-06	6.559E-07	3.456E-07	2.145E-07	1.472E-07	1.081E-07	8.327E-08	6.551E-08	5.351E-08	4.551E-08	3.951E-08	3.451E-08	3.051E-08	2.751E-08	2.451E-08
W	1.050E-05	3.621E-06	1.915E-06	9.502E-07	3.742E-07	1.997E-07	1.252E-07	8.658E-08	6.398E-08	4.956E-08	3.978E-08	3.278E-08	2.778E-08	2.378E-08	2.078E-08	1.828E-08	1.628E-08	1.478E-08
WNW	1.615E-05	5.408E-06	2.847E-06	1.414E-06	5.649E-07	3.047E-07	1.926E-07	1.342E-07	9.977E-08	7.771E-08	6.268E-08	5.268E-08	4.568E-08	4.068E-08	3.668E-08	3.368E-08	3.118E-08	2.918E-08
NW	2.953E-05	1.019E-05	5.403E-06	2.675E-06	1.049E-06	5.585E-07	3.497E-07	2.417E-07	1.786E-07	1.383E-07	1.110E-07	9.61E-08	8.31E-08	7.21E-08	6.31E-08	5.61E-08	5.01E-08	4.51E-08
NNW	7.737E-05	2.475E-05	1.300E-05	6.505E-06	2.659E-06	1.458E-06	9.329E-07	6.564E-07	4.921E-07	3.861E-07	3.134E-07	2.634E-07	2.234E-07	1.934E-07	1.734E-07	1.584E-07	1.484E-07	1.384E-07
N	6.963E-05	2.266E-05	1.198E-05	5.991E-06	2.439E-06	1.334E-06	8.522E-07	5.987E-07	4.484E-07	3.515E-07	2.850E-07	2.350E-07	2.050E-07	1.850E-07	1.700E-07	1.550E-07	1.450E-07	1.350E-07
NNE	4.054E-05	1.318E-05	7.155E-06	3.626E-06	1.467E-06	7.979E-07	5.076E-07	3.554E-07	2.654E-07	2.075E-07	1.679E-07	1.429E-07	1.279E-07	1.179E-07	1.129E-07	1.079E-07	1.029E-07	9.79E-08
NE	2.092E-05	6.608E-06	3.516E-06	1.771E-06	7.244E-07	3.973E-07	2.543E-07	1.790E-07	1.342E-07	1.053E-07	8.551E-08	7.251E-08	6.251E-08	5.551E-08	5.051E-08	4.651E-08	4.351E-08	4.051E-08
ENE	1.131E-05	3.623E-06	1.914E-06	9.584E-07	3.913E-07	2.145E-07	1.373E-07	9.658E-08	7.243E-08	5.684E-08	4.614E-08	3.914E-08	3.314E-08	2.814E-08	2.414E-08	2.114E-08	1.864E-08	1.664E-08
E	1.078E-05	3.396E-06	1.793E-06	8.995E-07	3.656E-07	1.997E-07	1.275E-07	8.948E-08	6.697E-08	5.247E-08	4.253E-08	3.653E-08	3.253E-08	2.953E-08	2.703E-08	2.503E-08	2.353E-08	2.203E-08
ESE	1.369E-05	4.452E-06	2.384E-06	1.201E-06	4.848E-07	2.633E-07	1.673E-07	1.170E-07	8.728E-08	6.818E-08	5.511E-08	4.611E-08	3.911E-08	3.311E-08	2.811E-08	2.411E-08	2.111E-08	1.861E-08
SE	3.681E-05	1.142E-05	5.987E-06	3.008E-06	1.244E-06	6.873E-07	4.423E-07	3.125E-07	2.352E-07	1.851E-07	1.506E-07	1.256E-07	1.106E-07	1.006E-07	9.06E-08	8.26E-08	7.56E-08	6.96E-08
SSE	4.088E-05	1.310E-05	7.128E-06	3.623E-06	1.465E-06	7.962E-07	5.061E-07	3.541E-07	2.642E-07	2.064E-07	1.669E-07	1.419E-07	1.269E-07	1.169E-07	1.069E-07	1.019E-07	9.69E-08	9.19E-08

BEARING	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)									DISTANCE IN MILES								
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	55.000	60.000	65.000	70.000	75.000	80.000	85.000
S	2.142E-07	1.126E-07	7.422E-08	4.356E-08	2.998E-08	2.248E-08	1.779E-08	1.462E-08	1.233E-08	1.062E-08	9.298E-09	8.198E-09	7.398E-09	6.798E-09	6.398E-09	6.098E-09	5.898E-09	5.698E-09
SSW	1.068E-07	5.455E-08	3.521E-08	2.010E-08	1.358E-08	1.004E-08	7.855E-09	6.389E-09	5.346E-09	4.571E-09	3.975E-09	3.575E-09	3.275E-09	3.025E-09	2.825E-09	2.675E-09	2.575E-09	2.475E-09
SW	6.318E-08	3.174E-08	2.024E-08	1.134E-08	7.554E-09	5.522E-09	4.281E-09	3.454E-09	2.871E-09	2.440E-09	2.110E-09	1.860E-09	1.660E-09	1.510E-09	1.410E-09	1.310E-09	1.260E-09	1.210E-09
WSW	5.463E-08	2.728E-08	1.733E-08	9.682E-09	6.460E-09	4.730E-09	3.672E-09	2.967E-09	2.469E-09	2.100E-09	1.818E-09	1.618E-09	1.468E-09	1.368E-09	1.268E-09	1.218E-09	1.168E-09	1.118E-09
W	3.282E-08	1.665E-08	1.069E-08	6.059E-09	4.070E-09	2.996E-09	2.336E-09	1.895E-09	1.582E-09	1.350E-09	1.172E-09	1.022E-09	9.02E-10	8.02E-10	7.22E-10	6.52E-10	5.92E-10	5.42E-10
WNW	5.194E-08	2.682E-08	1.745E-08	1.008E-08	6.863E-09	5.108E-09	4.018E-09	3.284E-09	2.759E-09	2.368E-09	2.066E-09	1.816E-09	1.616E-09	1.466E-09	1.366E-09	1.266E-09	1.216E-09	1.166E-09
NW	9.165E-08	4.666E-08	3.005E-08	1.712E-08	1.156E-08	8.549E-09	6.689E-09	5.442E-09	4.555E-09	3.895E-09	3.388E-09	2.988E-09	2.688E-09	2.438E-09	2.238E-09	2.088E-09	1.988E-09	1.888E-09
NNW	2.611E-07	1.378E-07	9.096E-08	5.359E-08	3.699E-08	2.781E-08	2.205E-08	1.814E-08	1.533E-08	1.322E-08	1.158E-08	1.008E-08	8.98E-09	8.08E-09	7.38E-09	6.78E-09	6.28E-09	5.88E-09
N	2.373E-07	1.248E-07	8.228E-08	4.834E-08	3.329E-08	2.498E-08	1.979E-08	1.626E-08	1.372E-08	1.182E-08	1.035E-08	9.05E-09	8.05E-09	7.25E-09	6.55E-09	5.95E-09	5.45E-09	5.05E-09
NNE	1.395E-07	7.281E-08	4.771E-08	2.780E-08	1.903E-08	1.421E-08	1.121E-08	9.179E-09	7.725E-09	6.637E-09	5.797E-09	5.197E-09	4.797E-09	4.497E-09	4.247E-09	4.047E-09	3.897E-09	3.747E-09
NE	7.127E-08	3.763E-08	2.486E-08	1.466E-08	1.013E-08	7.620E-09	6.046E-09	4.976E-09	4.206E-09	3.627E-09	3.179E-09	2.829E-09	2.579E-09	2.379E-09	2.229E-09	2.129E-09	2.029E-09	1.929E-09
ENE	3.846E-08	2.034E-08	1.345E-08	7.940E-09	5.491E-09	4.133E-09	3.281E-09	2.701E-09	2.284E-09	1.970E-09	1.727E-09	1.527E-09	1.377E-09	1.277E-09	1.177E-09	1.127E-09	1.077E-09	1.027E-09
E	3.540E-08	1.861E-08	1.226E-08	7.208E-09	4.971E-09	3.734E-09	2.960E-09	2.434E-09	2.056E-09	1.772E-09	1.553E-09	1.372E-09	1.222E-09	1.122E-09	1.022E-09	9.52E-10	8.82E-10	8.22E-10
ESE	4.576E-08	2.381E-08	1.557E-08	9.046E-09	6.182E-09	4.611E-09	3.634E-09	2.974E-09	2.502E-09	2.149E-09	1.876E-09	1.656E-09	1.476E-09	1.326E-09	1.226E-09	1.126E-09	1.076E-09	1.026E-09
SE	1.258E-07	6.691E-08	4.443E-08	2.637E-08	1.829E-08	1.379E-08	1.097E-08	9.045E-09	7.658E-09	6.615E-09	5.805E-09	5.105E-09	4.505E-09	4.005E-09	3.605E-09	3.305E-09	3.055E-09	2.855E-09
SSE	1.386E-07	7.216E-08	4.720E-08	2.744E-08	1.877E-08	1.401E-08	1.104E-08	9.039E-09	7.604E-09	6.532E-09	5.704E-09	5.004E-09	4.404E-09	3.904E-09	3.504E-09	3.204E-09	2.954E-09	2.754E-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	1.053E-05	2.475E-06	7.948E-07	4.104E-07	2.591E-07	1.181E-07	4.433E-08	2.260E-08	1.465E-08	1.064E-08
SSW	5.855E-06	1.354E-06	4.168E-07	2.100E-07	1.302E-07	5.756E-08	2.056E-08	1.011E-08	6.411E-09	4.580E-09
SW	3.728E-06	8.489E-07	2.547E-07	1.263E-07	7.744E-08	3.362E-08	1.164E-08	5.568E-09	3.468E-09	2.445E-09
WSW	3.331E-06	7.494E-07	2.226E-07	1.098E-07	6.708E-08	2.894E-08	9.949E-09	4.768E-09	2.978E-09	2.105E-09
W	1.865E-06	4.247E-07	1.296E-07	6.495E-08	4.010E-08	1.759E-08	6.205E-09	3.019E-09	1.902E-09	1.353E-09
WNW	2.779E-06	6.379E-07	1.991E-07	1.012E-07	6.316E-08	2.824E-08	1.029E-08	5.140E-09	3.294E-09	2.372E-09
NW	5.254E-06	1.192E-06	3.622E-07	1.813E-07	1.119E-07	4.927E-08	1.752E-08	8.609E-09	5.460E-09	3.903E-09
NNW	1.273E-05	2.980E-06	9.622E-07	4.987E-07	3.156E-07	1.444E-07	5.452E-08	2.795E-08	1.819E-08	1.324E-08
N	1.169E-05	2.737E-06	8.793E-07	4.544E-07	2.870E-07	1.309E-07	4.919E-08	2.512E-08	1.630E-08	1.184E-08
NNE	6.926E-06	1.649E-06	5.241E-07	2.690E-07	1.691E-07	7.647E-08	2.832E-08	1.430E-08	9.205E-09	6.648E-09
NE	3.428E-06	8.117E-07	2.623E-07	1.360E-07	8.611E-08	3.943E-08	1.491E-08	7.660E-09	4.988E-09	3.632E-09
ENE	1.869E-06	4.387E-07	1.416E-07	7.339E-08	4.647E-08	2.130E-08	8.075E-09	4.154E-09	2.708E-09	1.973E-09
E	1.752E-06	4.105E-07	1.315E-07	6.788E-08	4.284E-08	1.952E-08	7.337E-09	3.754E-09	2.440E-09	1.775E-09
ESE	2.318E-06	5.454E-07	1.728E-07	8.850E-08	5.552E-08	2.503E-08	9.223E-09	4.639E-09	2.983E-09	2.152E-09
SE	5.870E-06	1.389E-06	4.557E-07	2.382E-07	1.516E-07	6.999E-08	2.679E-08	1.386E-08	9.067E-09	6.624E-09
SSE	6.898E-06	1.647E-06	5.226E-07	2.679E-07	1.681E-07	7.583E-08	2.797E-08	1.409E-08	9.065E-09	6.543E-09

VENTS GROUND LEVEL RELEASES - APR-JUN 1994
2.260 DAY DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES																	
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500											
S	6.347E-05	2.030E-05	1.074E-05	5.384E-06	2.186E-06	1.191E-06	7.583E-07	5.308E-07	3.961E-07	3.093E-07	2.499E-07											
SSW	3.283E-05	1.122E-05	6.016E-06	3.004E-06	1.186E-06	6.336E-07	3.973E-07	2.747E-07	2.029E-07	1.571E-07	1.259E-07											
SW	2.008E-05	7.155E-06	3.839E-06	1.905E-06	7.399E-07	3.908E-07	2.429E-07	1.667E-07	1.224E-07	9.422E-08	7.519E-08											
WSW	1.815E-05	6.430E-06	3.424E-06	1.690E-06	6.517E-07	3.427E-07	2.122E-07	1.453E-07	1.064E-07	8.182E-08	6.520E-08											
W	1.049E-05	3.614E-06	1.910E-06	9.468E-07	3.722E-07	1.982E-07	1.240E-07	8.558E-08	6.311E-08	4.879E-08	3.907E-08											
WNW	1.613E-05	5.396E-06	2.837E-06	1.407E-06	5.608E-07	3.017E-07	1.902E-07	1.322E-07	9.799E-08	7.612E-08	6.122E-08											
NW	2.950E-05	1.017E-05	5.387E-06	2.664E-06	1.042E-06	5.539E-07	3.461E-07	2.387E-07	1.759E-07	1.360E-07	1.089E-07											
NNW	7.725E-05	2.467E-05	1.295E-05	6.467E-06	2.635E-06	1.440E-06	9.187E-07	6.443E-07	4.815E-07	3.766E-07	3.047E-07											
N	6.953E-05	2.260E-05	1.193E-05	5.956E-06	2.418E-06	1.318E-06	8.396E-07	5.880E-07	4.390E-07	3.430E-07	2.773E-07											
NNE	4.048E-05	1.314E-05	7.125E-06	3.605E-06	1.454E-06	7.885E-07	5.001E-07	3.491E-07	2.599E-07	2.025E-07	1.634E-07											
NE	2.089E-05	6.587E-06	3.499E-06	1.760E-06	7.175E-07	3.922E-07	2.502E-07	1.755E-07	1.312E-07	1.026E-07	8.299E-08											
ENE	1.129E-05	3.613E-06	1.905E-06	9.528E-07	3.787E-07	2.119E-07	1.352E-07	9.485E-08	7.091E-08	5.547E-08	4.490E-08											
E	1.076E-05	3.388E-06	1.786E-06	8.952E-07	3.630E-07	1.977E-07	1.259E-07	8.815E-08	6.581E-08	5.143E-08	4.158E-08											
ESE	1.367E-05	4.440E-06	2.374E-06	1.194E-06	4.809E-07	2.605E-07	1.650E-07	1.151E-07	8.562E-08	6.669E-08	5.376E-08											
SE	3.675E-05	1.138E-05	5.958E-06	2.989E-06	1.232E-06	6.782E-07	4.350E-07	3.063E-07	2.297E-07	1.801E-07	1.461E-07											
SSE	4.082E-05	1.307E-05	7.097E-06	3.602E-06	1.452E-06	7.868E-07	4.986E-07	3.478E-07	2.587E-07	2.015E-07	1.624E-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	2.074E-07	1.073E-07	6.955E-08	3.953E-08	2.636E-08	1.916E-08	1.471E-08	1.172E-08	9.605E-09	8.036E-09	6.836E-09									
SSW	1.038E-07	5.225E-08	3.324E-08	1.843E-08	1.209E-08	8.688E-09	6.607E-09	5.226E-09	4.254E-09	3.539E-09	2.996E-09									
SW	6.171E-08	3.063E-08	1.929E-08	1.055E-08	6.853E-09	4.889E-09	3.599E-09	2.914E-09	2.365E-09	1.963E-09	1.659E-09									
WSW	5.344E-08	2.638E-08	1.656E-08	9.040E-09	5.895E-09	4.219E-09	3.203E-09	2.531E-09	2.060E-09	1.714E-09	1.453E-09									
W	3.216E-08	1.614E-08	1.025E-08	5.685E-09	3.736E-09	2.691E-09	2.054E-09	1.631E-09	1.333E-09	1.114E-09	9.475E-10									
WNW	5.059E-08	2.576E-08	1.652E-08	9.275E-09	6.143E-09	4.447E-09	3.404E-09	2.708E-09	2.215E-09	1.852E-09	1.574E-09									
NW	8.968E-08	4.514E-08	2.874E-08	1.600E-08	1.057E-08	7.641E-09	5.848E-09	4.656E-09	3.814E-09	3.193E-09	2.720E-09									
NNW	2.531E-07	1.314E-07	8.538E-08	4.874E-08	3.262E-08	2.379E-08	1.832E-08	1.463E-08	1.202E-08	1.007E-08	8.587E-09									
N	2.302E-07	1.192E-07	7.738E-08	4.409E-08	2.947E-08	2.147E-08	1.652E-08	1.319E-08	1.083E-08	9.080E-09	7.738E-09									
NNE	1.353E-07	6.957E-08	4.490E-08	2.538E-08	1.687E-08	1.224E-08	9.382E-09	7.472E-09	6.118E-09	5.117E-09	4.352E-09									
NE	6.893E-08	3.578E-08	2.325E-08	1.326E-08	8.873E-09	6.467E-09	4.974E-09	3.970E-09	3.256E-09	2.727E-09	2.322E-09									
ENE	3.731E-08	1.943E-08	1.266E-08	7.255E-09	4.875E-09	3.567E-09	2.755E-09	2.208E-09	1.818E-09	1.528E-09	1.306E-09									
E	3.452E-08	1.792E-08	1.166E-08	6.686E-09	4.501E-09	3.303E-09	2.559E-09	2.058E-09	1.700E-09	1.435E-09	1.230E-09									
ESE	4.452E-08	2.284E-08	1.473E-08	8.325E-09	5.538E-09	4.023E-09	3.089E-09	2.465E-09	2.022E-09	1.695E-09	1.445E-09									
SE	1.216E-07	6.357E-08	4.150E-08	2.381E-08	1.598E-08	1.167E-08	8.994E-09	7.190E-09	5.904E-09	4.950E-09	4.218E-09									
SSE	1.345E-07	6.891E-08	4.438E-08	2.502E-08	1.661E-08	1.204E-08	9.222E-09	7.338E-09	6.003E-09	5.018E-09	4.265E-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	1.048E-05	2.454E-06	7.828E-07	4.015E-07	2.518E-07	1.128E-07	4.035E-08	1.930E-08	1.177E-08	8.056E-09
SSW	5.833E-06	1.345E-06	4.113E-07	2.060E-07	1.270E-07	5.525E-08	1.890E-08	8.764E-09	5.250E-09	3.549E-09
SW	3.716E-06	8.437E-07	2.519E-07	1.243E-07	7.583E-08	3.249E-08	1.085E-08	4.937E-09	2.929E-09	1.969E-09
WSW	3.321E-06	7.451E-07	2.203E-07	1.082E-07	6.577E-08	2.803E-08	9.313E-09	4.260E-09	2.543E-09	1.720E-09
W	1.861E-06	4.226E-07	1.284E-07	6.407E-08	3.939E-08	1.709E-08	5.834E-09	2.715E-09	1.638E-09	1.117E-09
WNW	2.770E-06	6.338E-07	1.967E-07	9.942E-08	6.170E-08	2.717E-08	9.494E-09	4.482E-09	2.719E-09	1.857E-09
NW	5.239E-06	1.186E-06	3.585E-07	1.786E-07	1.098E-07	4.775E-08	1.642E-08	7.704E-09	4.676E-09	3.202E-09
NNW	1.267E-05	2.955E-06	9.480E-07	4.881E-07	3.069E-07	1.380E-07	4.972E-08	2.396E-08	1.469E-08	1.010E-08
N	1.164E-05	2.716E-06	8.666E-07	4.450E-07	2.793E-07	1.253E-07	4.499E-08	2.162E-08	1.324E-08	9.102E-09
NNE	6.898E-06	1.636E-06	5.166E-07	2.635E-07	1.646E-07	7.322E-08	2.593E-08	1.233E-08	7.502E-09	5.130E-09
NE	3.413E-06	8.046E-07	2.582E-07	1.329E-07	8.359E-08	3.758E-08	1.353E-08	6.511E-09	3.985E-09	2.734E-09
ENE	1.861E-06	4.352E-07	1.395E-07	7.187E-08	4.522E-08	2.039E-08	7.398E-09	3.591E-09	2.215E-09	1.532E-09
E	1.746E-06	4.078E-07	1.300E-07	6.671E-08	4.188E-08	1.883E-08	6.820E-09	3.325E-09	2.065E-09	1.438E-09
ESE	2.309E-06	5.415E-07	1.705E-07	8.683E-08	5.417E-08	2.405E-08	8.509E-09	4.054E-09	2.475E-09	1.699E-09
SE	5.844E-06	1.376E-06	4.484E-07	2.327E-07	1.471E-07	6.665E-08	2.426E-08	1.175E-08	7.216E-09	4.962E-09
SSE	6.871E-06	1.634E-06	5.151E-07	2.623E-07	1.636E-07	7.257E-08	2.559E-08	1.213E-08	7.368E-09	5.031E-09

VENTS GROUND LEVEL RELEASES - APR-JUN 1994
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	6.014E-05	1.858E-05	9.598E-06	4.733E-06	1.869E-06	9.952E-07	6.212E-07	4.274E-07	3.140E-07	2.418E-07	1.929E-07		
SSW	3.110E-05	1.026E-05	5.376E-06	2.640E-06	1.013E-06	5.288E-07	3.250E-07	2.208E-07	1.606E-07	1.225E-07	9.697E-08		
SW	1.702E-05	6.544E-06	3.429E-06	1.673E-06	6.314E-07	3.257E-07	1.983E-07	1.337E-07	9.660E-08	7.330E-08	5.772E-08		
WSW	1.719E-05	5.880E-06	3.058E-06	1.484E-06	5.560E-07	2.855E-07	1.733E-07	1.165E-07	8.397E-08	6.361E-08	5.000E-08		
W	9.936E-06	3.305E-06	1.706E-06	8.309E-07	3.173E-07	1.650E-07	1.011E-07	6.855E-08	4.973E-08	3.788E-08	2.992E-08		
WNW	1.528E-05	4.936E-06	2.534E-06	1.236E-06	4.787E-07	2.516E-07	1.555E-07	1.061E-07	7.745E-08	5.931E-08	4.707E-08		
NW	2.794E-05	9.299E-06	4.811E-06	2.339E-06	8.890E-07	4.614E-07	2.824E-07	1.913E-07	1.388E-07	1.057E-07	8.349E-08		
NNW	7.319E-05	2.258E-05	1.157E-05	5.684E-06	2.252E-06	1.203E-06	7.524E-07	5.186E-07	3.816E-07	2.943E-07	2.350E-07		
N	6.587E-05	2.068E-05	1.066E-05	5.235E-06	2.066E-06	1.101E-06	6.874E-07	4.731E-07	3.478E-07	2.679E-07	2.138E-07		
NNE	3.835E-05	1.203E-05	6.369E-06	3.169E-06	1.242E-06	6.585E-07	4.095E-07	2.809E-07	2.058E-07	1.582E-07	1.259E-07		
NE	1.979E-05	6.029E-06	3.129E-06	1.548E-06	6.135E-07	3.278E-07	2.051E-07	1.414E-07	1.041E-07	8.025E-08	6.410E-08		
ENE	1.070E-05	3.306E-06	1.703E-06	8.375E-07	3.315E-07	1.770E-07	1.107E-07	7.632E-08	5.617E-08	4.333E-08	3.461E-08		
E	1.020E-05	3.099E-06	1.596E-06	7.863E-07	3.099E-07	1.649E-07	1.029E-07	7.077E-08	5.200E-08	4.005E-08	3.195E-08		
ESE	1.295E-05	4.062E-06	2.122E-06	1.049E-06	4.108E-07	2.174E-07	1.350E-07	9.251E-08	6.774E-08	5.201E-08	4.138E-08		
SE	3.482E-05	1.042E-05	5.327E-06	2.629E-06	1.054E-06	5.670E-07	3.566E-07	2.468E-07	1.823E-07	1.410E-07	1.129E-07		
SSE	3.868E-05	1.196E-05	6.344E-06	3.166E-06	1.241E-06	6.570E-07	4.082E-07	2.798E-07	2.049E-07	1.574E-07	1.252E-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	1.582E-07	7.830E-08	4.893E-08	2.633E-08	1.686E-08	1.187E-08	8.867E-09	6.906E-09	5.545E-09	4.556E-09	3.812E-09		
SSW	7.894E-08	3.798E-08	2.327E-08	1.219E-08	7.667E-09	5.324E-09	3.936E-09	3.038E-09	2.420E-09	1.976E-09	1.643E-09		
SW	4.678E-08	2.215E-08	1.341E-08	6.907E-09	4.288E-09	2.949E-09	2.163E-09	1.658E-09	1.314E-09	1.067E-09	8.842E-10		
WSW	4.047E-08	1.905E-08	1.149E-08	5.902E-09	3.674E-09	2.531E-09	1.860E-09	1.429E-09	1.134E-09	9.229E-10	7.658E-10		
W	2.432E-08	1.163E-08	7.097E-09	3.699E-09	2.318E-09	1.606E-09	1.186E-09	9.146E-10	7.285E-10	5.946E-10	4.948E-10		
WNW	3.842E-08	1.869E-08	1.154E-08	6.116E-09	3.880E-09	2.712E-09	2.017E-09	1.564E-09	1.252E-09	1.026E-09	8.562E-10		
NW	6.789E-08	3.258E-08	1.993E-08	1.044E-08	6.578E-09	4.576E-09	3.390E-09	2.622E-09	2.094E-09	1.712E-09	1.428E-09		
NNW	1.929E-07	9.580E-08	6.001E-08	3.242E-08	2.082E-08	1.469E-08	1.100E-08	8.586E-09	6.904E-09	5.681E-09	4.761E-09		
N	1.754E-07	8.686E-08	5.431E-08	2.926E-08	1.876E-08	1.322E-08	9.888E-09	7.709E-09	6.194E-09	5.094E-09	4.266E-09		
NNE	1.031E-07	5.066E-08	3.150E-08	1.683E-08	1.073E-08	7.523E-09	5.608E-09	4.356E-09	3.490E-09	2.863E-09	2.392E-09		
NE	5.262E-08	2.615E-08	1.630E-08	8.853E-09	5.690E-09	4.017E-09	3.008E-09	2.347E-09	1.887E-09	1.553E-09	1.301E-09		
ENE	2.842E-08	1.415E-08	8.878E-09	4.809E-09	3.097E-09	2.190E-09	1.642E-09	1.283E-09	1.033E-09	8.515E-10	7.143E-10		
E	2.620E-08	1.298E-08	8.120E-09	4.385E-09	2.820E-09	1.992E-09	1.494E-09	1.168E-09	9.409E-10	7.756E-10	6.511E-10		
ESE	3.385E-08	1.659E-08	1.029E-08	5.491E-09	3.496E-09	2.451E-09	1.826E-09	1.419E-09	1.137E-09	9.334E-10	7.803E-10		
SE	9.284E-08	4.648E-08	2.927E-08	1.592E-08	1.027E-08	7.265E-09	5.453E-09	4.262E-09	3.432E-09	2.827E-09	2.371E-09		
SSE	1.024E-07	5.020E-08	3.115E-08	1.661E-08	1.058E-08	7.412E-09	5.520E-09	4.287E-09	3.433E-09	2.815E-09	2.351E-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	9.431E-06	2.117E-06	6.434E-07	3.189E-07	1.945E-07	8.300E-08	2.714E-08	1.200E-08	6.948E-09	4.573E-09
SSW	5.246E-06	1.159E-06	3.377E-07	1.633E-07	9.787E-08	4.054E-08	1.264E-08	5.394E-09	3.059E-09	1.984E-09
SW	3.341E-06	7.271E-07	2.065E-07	9.834E-08	5.828E-08	2.374E-08	7.189E-09	2.991E-09	1.671E-09	1.073E-09
WSW	2.986E-06	6.420E-07	1.805E-07	8.551E-08	5.050E-08	2.045E-08	6.154E-09	2.568E-09	1.440E-09	9.273E-10
W	1.672E-06	3.638E-07	1.051E-07	5.059E-08	3.021E-08	1.244E-08	3.840E-09	1.628E-09	9.212E-10	5.973E-10
WNW	2.491E-06	5.461E-07	1.614E-07	7.873E-08	4.749E-08	1.990E-08	6.327E-09	2.745E-09	1.574E-09	1.030E-09
NW	4.709E-06	1.021E-06	2.937E-07	1.412E-07	8.429E-08	3.481E-08	1.083E-08	4.636E-09	2.640E-09	1.720E-09
NNW	1.140E-05	2.549E-06	7.790E-07	3.875E-07	2.370E-07	1.015E-07	3.339E-08	1.485E-08	8.636E-09	5.703E-09
N	1.040E-05	2.342E-06	7.120E-07	3.532E-07	2.156E-07	9.206E-08	3.016E-08	1.336E-08	7.755E-09	5.113E-09
NNE	6.204E-06	1.411E-06	4.244E-07	2.091E-07	1.270E-07	5.379E-08	1.738E-08	7.611E-09	4.383E-09	2.874E-09
NE	3.071E-06	6.941E-07	2.123E-07	1.057E-07	6.464E-08	2.769E-08	9.120E-09	4.060E-09	2.361E-09	1.558E-09
ENE	1.675E-06	3.753E-07	1.146E-07	5.704E-08	3.490E-08	1.498E-08	4.952E-09	2.213E-09	1.291E-09	8.546E-10
E	1.570E-06	3.513E-07	1.066E-07	5.281E-08	3.222E-08	1.376E-08	4.519E-09	2.014E-09	1.175E-09	7.785E-10
ESE	2.077E-06	4.668E-07	1.400E-07	6.882E-08	4.174E-08	1.763E-08	5.672E-09	2.480E-09	1.428E-09	9.372E-10
SE	5.259E-06	1.187E-06	3.688E-07	1.850E-07	1.138E-07	4.913E-08	1.637E-08	7.340E-09	4.286E-09	2.838E-09
SSE	6.179E-06	1.409E-06	4.232E-07	2.082E-07	1.263E-07	5.334E-08	1.716E-08	7.498E-09	4.314E-09	2.826E-09

VENTS GROUND LEVEL RELEASES - APR-JUN 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTORS *****
DIRECTION DISTANCES IN MILES

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
S	2.304E-07	7.793E-08	4.001E-08	1.902E-08	6.833E-09	3.388E-09	1.995E-09	1.306E-09	9.193E-10	6.813E-10	5.250E-10
SSW	1.413E-07	4.780E-08	2.454E-08	1.167E-08	4.191E-09	2.078E-09	1.224E-09	8.013E-10	5.638E-10	4.179E-10	3.220E-10
SW	1.097E-07	3.711E-08	1.905E-08	9.058E-09	3.254E-09	1.614E-09	9.501E-10	6.221E-10	4.377E-10	3.244E-10	2.500E-10
WSW	1.108E-07	3.746E-08	1.923E-08	9.144E-09	3.285E-09	1.629E-09	9.592E-10	6.280E-10	4.419E-10	3.275E-10	2.524E-10
W	7.048E-08	2.383E-08	1.224E-08	5.818E-09	2.090E-09	1.036E-09	6.102E-10	3.996E-10	2.812E-10	2.084E-10	1.606E-10
WNW	7.733E-08	2.615E-08	1.343E-08	6.383E-09	2.293E-09	1.137E-09	6.695E-10	4.384E-10	3.085E-10	2.286E-10	1.762E-10
NW	2.081E-07	7.037E-08	3.613E-08	1.718E-08	6.170E-09	3.060E-09	1.802E-09	1.180E-09	8.301E-10	6.152E-10	4.741E-10
NNW	3.267E-07	1.105E-07	5.673E-08	2.697E-08	9.688E-09	4.804E-09	2.829E-09	1.852E-09	1.303E-09	9.660E-10	7.444E-10
N	3.545E-07	1.199E-07	6.155E-08	2.926E-08	1.051E-08	5.213E-09	3.069E-09	2.010E-09	1.414E-09	1.048E-09	8.077E-10
NNE	1.931E-07	6.529E-08	3.352E-08	1.594E-08	5.725E-09	2.839E-09	1.672E-09	1.095E-09	7.702E-10	5.708E-10	4.399E-10
NE	8.208E-08	2.776E-08	1.425E-08	6.775E-09	2.434E-09	1.207E-09	7.106E-10	4.653E-10	3.274E-10	2.427E-10	1.870E-10
ENE	4.940E-08	1.671E-08	8.578E-09	4.078E-09	1.465E-09	7.264E-10	4.277E-10	2.801E-10	1.971E-10	1.461E-10	1.125E-10
E	6.497E-08	2.197E-08	1.128E-08	5.363E-09	1.926E-09	9.554E-10	5.625E-10	3.683E-10	2.592E-10	1.921E-10	1.480E-10
ESE	7.623E-08	2.578E-08	1.324E-08	6.293E-09	2.260E-09	1.121E-09	6.600E-10	4.322E-10	3.041E-10	2.254E-10	1.737E-10
SE	1.305E-07	4.413E-08	2.266E-08	1.077E-08	3.869E-09	1.919E-09	1.130E-09	7.398E-10	5.206E-10	3.858E-10	2.973E-10
SSE	1.607E-07	5.433E-08	2.790E-08	1.326E-08	4.764E-09	2.363E-09	1.301E-09	9.109E-10	6.410E-10	4.750E-10	3.661E-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
S	4.171E-10	1.853E-10	1.122E-10	5.673E-11	3.434E-11	2.302E-11	1.650E-11	1.239E-11	9.631E-12	7.693E-12	6.279E-12
SSW	2.558E-10	1.136E-10	6.884E-11	3.479E-11	2.106E-11	1.412E-11	1.012E-11	7.597E-12	5.907E-12	4.719E-12	3.851E-12
SW	1.986E-10	8.823E-11	5.345E-11	2.701E-11	1.635E-11	1.096E-11	7.855E-12	5.898E-12	4.586E-12	3.663E-12	2.990E-12
WSW	2.005E-10	8.907E-11	5.395E-11	2.727E-11	1.651E-11	1.107E-11	7.930E-12	5.955E-12	4.630E-12	3.698E-12	3.019E-12
W	1.276E-10	5.667E-11	3.433E-11	1.735E-11	1.050E-11	7.041E-12	5.045E-12	3.789E-12	2.946E-12	2.353E-12	1.921E-12
WNW	1.400E-10	6.217E-11	3.766E-11	1.904E-11	1.152E-11	7.725E-12	5.535E-12	4.156E-12	3.232E-12	2.581E-12	2.107E-12
NW	3.766E-10	1.673E-10	1.014E-10	5.123E-11	3.101E-11	2.079E-11	1.490E-11	1.119E-11	8.697E-12	6.947E-12	5.671E-12
NNW	5.914E-10	2.627E-10	1.591E-10	8.044E-11	4.868E-11	3.264E-11	2.339E-11	1.756E-11	1.366E-11	1.091E-11	8.903E-12
N	6.416E-10	2.850E-10	1.727E-10	8.727E-11	5.282E-11	3.542E-11	2.538E-11	1.906E-11	1.482E-11	1.184E-11	9.660E-12
NNE	3.494E-10	1.552E-10	9.403E-11	4.753E-11	2.877E-11	1.929E-11	1.382E-11	1.038E-11	8.069E-12	6.446E-12	5.261E-12
NE	1.486E-10	6.599E-11	3.998E-11	2.021E-11	1.223E-11	8.199E-12	5.875E-12	4.412E-12	3.430E-12	2.740E-12	2.237E-12
ENE	8.941E-11	3.972E-11	2.406E-11	1.216E-11	7.361E-12	4.935E-12	3.536E-12	2.655E-12	2.065E-12	1.649E-12	1.346E-12
E	1.176E-10	5.224E-11	3.164E-11	1.599E-11	9.681E-12	6.491E-12	4.651E-12	3.492E-12	2.715E-12	2.169E-12	1.770E-12
ESE	1.380E-10	6.129E-11	3.713E-11	1.877E-11	1.136E-11	7.616E-12	5.457E-12	4.098E-12	3.186E-12	2.545E-12	2.077E-12
SE	2.362E-10	1.049E-10	6.356E-11	3.213E-11	1.944E-11	1.304E-11	9.342E-12	7.014E-12	5.454E-12	4.357E-12	3.556E-12
SSE	2.908E-10	1.292E-10	7.826E-11	3.955E-11	2.394E-11	1.605E-11	1.150E-11	8.637E-12	6.715E-12	5.364E-12	4.378E-12

DIRECTION FROM SITE	1-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.911E-08	8.011E-09	2.091E-09	9.392E-10	5.313E-10	2.043E-10	5.911E-11	2.343E-11	1.251E-11	7.744E-12
SSW	2.399E-08	4.913E-09	1.283E-09	5.761E-10	3.259E-10	1.253E-10	3.626E-11	1.437E-11	7.674E-12	4.750E-12
SW	1.862E-08	3.815E-09	9.958E-10	4.472E-10	2.530E-10	9.730E-11	2.815E-11	1.116E-11	5.958E-12	3.687E-12
WSW	1.880E-08	3.851E-09	1.005E-09	4.515E-10	2.554E-10	9.823E-11	2.842E-11	1.126E-11	6.014E-12	3.723E-12
W	1.196E-08	2.450E-09	6.396E-10	2.873E-10	1.625E-10	6.249E-11	1.808E-11	7.166E-12	3.827E-12	2.368E-12
WNW	1.312E-08	2.688E-09	7.017E-10	3.152E-10	1.783E-10	6.856E-11	1.983E-11	7.861E-12	4.198E-12	2.598E-12
NW	3.532E-08	7.234E-09	1.888E-09	8.482E-10	4.798E-10	1.845E-10	5.338E-11	2.116E-11	1.130E-11	6.993E-12
NNW	5.545E-08	1.136E-08	2.965E-09	1.332E-09	7.534E-10	2.897E-10	8.381E-11	3.322E-11	1.774E-11	1.098E-11
N	6.016E-08	1.232E-08	3.217E-09	1.445E-09	8.174E-10	3.143E-10	9.094E-11	3.604E-11	1.925E-11	1.191E-11
NNE	3.277E-08	6.712E-09	1.752E-09	7.869E-10	4.452E-10	1.712E-10	4.952E-11	1.963E-11	1.048E-11	6.488E-12
NE	1.393E-08	2.853E-09	7.448E-10	3.345E-10	1.892E-10	7.278E-11	2.105E-11	8.344E-12	4.456E-12	2.758E-12
ENE	8.384E-09	1.717E-09	4.483E-10	2.013E-10	1.139E-10	4.380E-11	1.267E-11	5.022E-12	2.682E-12	1.660E-12
E	1.103E-08	2.259E-09	5.896E-10	2.648E-10	1.498E-10	5.761E-11	1.667E-11	6.605E-12	3.527E-12	2.183E-12
ESE	1.294E-08	2.650E-09	6.918E-10	3.107E-10	1.758E-10	6.759E-11	1.955E-11	7.750E-12	4.139E-12	2.562E-12
SE	2.215E-08	4.536E-09	1.184E-09	5.319E-10	3.009E-10	1.157E-10	3.347E-11	1.327E-11	7.085E-12	4.385E-12
SSE	2.727E-08	5.585E-09	1.458E-09	6.549E-10	3.705E-10	1.425E-10	4.122E-11	1.634E-11	8.723E-12	5.399E-12

VENTS GROUND LEVEL RELEASES - APR-JUN 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE		X/Q		X/Q		X/Q		D/Q
			(MILES)	(METERS)	(SEC/CUB.METER)	NO DECAY	(SEC/CUB.METER)	2.260 DAY DECAY	(SEC/CUB.METER)	8.000 DAY DECAY	(PER SQ.METER)
					UNDEPLETED		UNDEPLETED		DEPLETED		
A	SITE BOUNDARY	S	0.80	1287.	4.268E-06		4.224E-06		8.217E-06		3.403E-08
A	SITE BOUNDARY	SSW	0.82	1327.	4.813E-06		4.792E-06		4.260E-06		1.926E-08
A	SITE BOUNDARY	SW	0.98	1569.	2.033E-06		2.024E-06		1.780E-06		9.666E-09
A	SITE BOUNDARY	WSW	0.93	1489.	2.050E-06		2.042E-06		1.802E-06		1.117E-08
A	SITE BOUNDARY	W	0.91	1468.	1.186E-06		1.182E-06		1.043E-06		7.376E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.648E-06		1.641E-06		1.447E-06		7.534E-09
A	SITE BOUNDARY	NW	0.81	1307.	4.456E-06		4.442E-06		3.949E-06		2.951E-08
A	SITE BOUNDARY	NNW	0.69	1106.	1.489E-05		1.483E-05		1.332E-05		6.570E-08
A	SITE BOUNDARY	N	0.67	1086.	1.411E-05		1.405E-05		1.263E-05		7.350E-08
A	SITE BOUNDARY	NNE	0.60	965.	9.982E-06		9.948E-06		9.002E-06		4.851E-08
A	SITE BOUNDARY	NE	0.62	1005.	4.650E-06		4.632E-06		4.180E-06		1.938E-08
A	SITE BOUNDARY	ENE	0.59	945.	2.808E-06		2.798E-06		2.535E-06		1.285E-08
A	SITE BOUNDARY	E	0.53	845.	3.128E-06		3.121E-06		2.846E-06		2.029E-08
A	SITE BOUNDARY	ESE	0.54	865.	3.955E-06		3.944E-06		3.592E-06		2.291E-08
A	SITE BOUNDARY	SE	0.65	1046.	7.470E-06		7.438E-06		6.701E-06		2.882E-08
A	SITE BOUNDARY	SSE	0.81	1307.	5.924E-06		5.896E-06		5.247E-06		2.278E-08
A	NEAR. RESIDENCE	SW	1.30	2092.	1.033E-06		1.027E-06		8.855E-07		4.646E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	9.113E-07		9.064E-07		7.816E-07		4.690E-09
A	NEAR. RESIDENCE	W	1.00	1609.	9.502E-07		9.468E-07		8.309E-07		5.818E-09
A	NEAR. RESIDENCE	WNW	1.60	2575.	4.908E-07		4.870E-07		4.136E-07		1.956E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	3.455E-06		3.443E-06		3.042E-06		2.257E-08
A	NEAR. RESIDENCE	NNW	1.90	3058.	1.619E-06		1.601E-06		1.343E-06		5.437E-09
A	NEAR. RESIDENCE	N	3.00	4828.	5.987E-07		5.880E-07		4.731E-07		2.010E-09
A	NEAR. RESIDENCE	NNE	2.70	4345.	4.361E-07		4.292E-07		3.488E-07		1.397E-09
A	NEAR. RESIDENCE	ENE	1.70	2736.	3.002E-07		2.972E-07		2.516E-07		1.077E-09
A	NEAR. RESIDENCE	E	2.00	3219.	1.997E-07		1.977E-07		1.649E-07		9.554E-10
A	NEAR. RESIDENCE	ESE	2.75	4426.	1.386E-07		1.365E-07		1.106E-07		5.283E-10
A	NEAREST COW	NNW	3.50	5633.	4.920E-07		4.815E-07		3.816E-07		1.303E-09
A	NEAREST GARDEN	SW	1.30	2092.	1.033E-06		1.027E-06		8.855E-07		4.646E-09
A	NEAREST GARDEN	WSW	2.60	4184.	1.977E-07		1.955E-07		1.590E-07		8.752E-10
A	NEAREST GARDEN	WNW	1.60	2575.	4.908E-07		4.870E-07		4.136E-07		1.956E-09
A	NEAREST GARDEN	NW	1.90	3058.	6.236E-07		6.188E-07		5.177E-07		3.463E-09
A	NEAREST GARDEN	NNW	1.90	3058.	1.619E-06		1.601E-06		1.343E-06		5.437E-09
A	NEAREST GARDEN	N	3.00	4828.	5.987E-07		5.880E-07		4.731E-07		2.010E-09
A	NEAREST GARDEN	NNE	2.70	4345.	4.361E-07		4.292E-07		3.488E-07		1.397E-09
A	NEAREST GARDEN	ENE	1.70	2736.	3.002E-07		2.972E-07		2.516E-07		1.077E-09
A	NEAREST GARDEN	E	2.00	3219.	1.997E-07		1.977E-07		1.649E-07		9.554E-10
A	NEAREST GARDEN	ESE	2.40	3863.	1.815E-07		1.792E-07		1.471E-07		7.263E-10
A	NEAREST GARDEN	SE	2.20	3541.	5.681E-07		5.598E-07		4.642E-07		1.528E-09

Atmospheric Diffusion Estimates

Ground Level Releases

January-June 1994

VENTS GROUND LEVEL RELEASES - JAN-JUN 1994
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	5.953E-05	1.971E-05	1.049E-05	5.252E-06	2.111E-06	1.144E-06	7.254E-07	5.067E-07	3.776E-07	2.947E-07	2.381E-07
SSW	3.015E-05	1.037E-05	5.560E-06	2.778E-06	1.098E-06	5.878E-07	3.693E-07	2.559E-07	1.895E-07	1.470E-07	1.181E-07
SW	1.873E-05	6.640E-06	3.557E-06	1.768E-06	6.915E-07	3.674E-07	2.294E-07	1.582E-07	1.166E-07	9.013E-08	7.220E-08
WSW	1.391E-05	4.968E-06	2.664E-06	1.321E-06	5.107E-07	2.691E-07	1.670E-07	1.145E-07	8.404E-08	6.472E-08	5.166E-08
W	1.032E-05	3.584E-06	1.905E-06	9.464E-07	3.720E-07	1.983E-07	1.242E-07	8.580E-08	6.335E-08	4.905E-08	3.934E-08
WNW	1.497E-05	5.221E-06	2.791E-06	1.389E-06	5.460E-07	2.912E-07	1.824E-07	1.261E-07	9.311E-08	7.211E-08	5.786E-08
NW	3.336E-05	1.120E-05	5.920E-06	2.944E-06	1.174E-06	6.330E-07	3.999E-07	2.785E-07	2.070E-07	1.612E-07	1.300E-07
NNW	6.142E-05	1.961E-05	1.028E-05	5.142E-06	2.107E-06	1.157E-06	7.410E-07	5.218E-07	3.914E-07	3.073E-07	2.495E-07
N	6.655E-05	2.121E-05	1.132E-05	5.714E-06	2.343E-06	1.287E-06	8.245E-07	5.806E-07	4.356E-07	3.419E-07	2.776E-07
NNE	4.196E-05	1.347E-05	7.245E-06	3.666E-06	1.493E-06	8.164E-07	5.213E-07	3.661E-07	2.740E-07	2.146E-07	1.740E-07
NE	2.157E-05	7.028E-06	3.757E-06	1.888E-06	7.635E-07	4.154E-07	2.643E-07	1.851E-07	1.382E-07	1.081E-07	8.747E-08
ENE	1.315E-05	4.331E-06	2.299E-06	1.150E-06	4.663E-07	2.542E-07	1.620E-07	1.136E-07	8.494E-08	6.648E-08	5.384E-08
E	1.353E-05	4.426E-06	2.395E-06	1.211E-06	4.874E-07	2.643E-07	1.678E-07	1.172E-07	8.737E-08	6.820E-08	5.511E-08
ESE	1.711E-05	5.620E-06	3.025E-06	1.524E-06	6.127E-07	3.318E-07	2.103E-07	1.468E-07	1.094E-07	8.532E-08	6.890E-08
SE	3.399E-05	1.107E-05	5.867E-06	2.939E-06	1.191E-06	6.490E-07	4.134E-07	2.897E-07	2.165E-07	1.694E-07	1.371E-07
SSE	3.912E-05	1.309E-05	7.076E-06	3.560E-06	1.411E-06	7.572E-07	4.765E-07	3.306E-07	2.450E-07	1.903E-07	1.531E-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	1.976E-07	1.027E-07	6.712E-08	3.897E-08	2.663E-08	1.986E-08	1.565E-08	1.281E-08	1.077E-08	9.253E-09	8.079E-09
SSW	9.758E-08	4.974E-08	3.206E-08	1.826E-08	1.231E-08	9.082E-09	7.096E-09	5.765E-09	4.819E-09	4.117E-09	3.577E-09
SW	5.946E-08	2.998E-08	1.916E-08	1.078E-08	7.197E-09	5.272E-09	4.093E-09	3.308E-09	2.753E-09	2.342E-09	2.028E-09
WSW	4.241E-08	2.112E-08	1.338E-08	7.443E-09	4.941E-09	3.603E-09	2.787E-09	2.246E-09	1.863E-09	1.581E-09	1.366E-09
W	3.243E-08	1.641E-08	1.052E-08	5.948E-09	3.988E-09	2.931E-09	2.282E-09	1.849E-09	1.542E-09	1.315E-09	1.140E-09
WNW	4.771E-08	2.418E-08	1.552E-08	8.783E-09	5.895E-09	4.336E-09	3.379E-09	2.739E-09	2.285E-09	1.948E-09	1.690E-09
NW	1.077E-07	5.563E-08	3.620E-08	2.091E-08	1.424E-08	1.060E-08	8.335E-09	6.811E-09	5.722E-09	4.910E-09	4.283E-09
NNW	2.080E-07	1.098E-07	7.259E-08	4.280E-08	2.956E-08	2.223E-08	1.763E-08	1.451E-08	1.226E-08	1.058E-08	9.269E-09
N	2.314E-07	1.221E-07	8.065E-08	4.749E-08	3.275E-08	2.460E-08	1.949E-08	1.602E-08	1.353E-08	1.166E-08	1.021E-08
NNE	1.448E-07	7.601E-08	5.000E-08	2.929E-08	2.013E-08	1.507E-08	1.192E-08	9.779E-09	8.243E-09	7.094E-09	6.204E-09
NE	7.270E-08	3.797E-08	2.490E-08	1.453E-08	9.965E-09	7.454E-09	5.887E-09	4.826E-09	4.066E-09	3.497E-09	3.057E-09
ENE	4.479E-08	2.346E-08	1.542E-08	9.021E-09	6.198E-09	4.642E-09	3.670E-09	3.011E-09	2.539E-09	2.185E-09	1.911E-09
E	4.574E-08	2.376E-08	1.552E-08	9.002E-09	6.147E-09	4.582E-09	3.609E-09	2.951E-09	2.481E-09	2.130E-09	1.859E-09
ESE	5.715E-08	2.962E-08	1.932E-08	1.118E-08	7.627E-09	5.680E-09	4.470E-09	3.654E-09	3.071E-09	2.635E-09	2.299E-09
SE	1.140E-07	5.965E-08	3.915E-08	2.287E-08	1.569E-08	1.174E-08	9.277E-09	7.608E-09	6.411E-09	5.516E-09	4.823E-09
SSE	1.266E-07	6.477E-08	4.186E-08	2.394E-08	1.619E-08	1.198E-08	9.383E-09	7.636E-09	6.393E-09	5.468E-09	4.757E-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	1.021E-05	2.379E-06	7.494E-07	3.829E-07	2.399E-07	1.080E-07	3.974E-08	1.998E-08	1.284E-08	9.269E-09
SSW	5.392E-06	1.245E-06	3.822E-07	1.923E-07	1.191E-07	5.251E-08	1.868E-08	9.147E-09	5.785E-09	4.125E-09
SW	3.447E-06	7.866E-07	2.377E-07	1.184E-07	7.279E-08	3.172E-08	1.105E-08	5.314E-09	3.321E-09	2.347E-09
WSW	2.579E-06	5.833E-07	1.732E-07	8.539E-08	5.210E-08	2.241E-08	7.651E-09	3.634E-09	2.255E-09	1.585E-09
W	1.852E-06	4.225E-07	1.286E-07	6.431E-08	3.966E-08	1.736E-08	6.094E-09	2.953E-09	1.856E-09	1.318E-09
WNW	2.708E-06	6.200E-07	1.889E-07	9.452E-08	5.832E-08	2.556E-08	8.996E-09	4.369E-09	2.749E-09	1.953E-09
NW	5.771E-06	1.327E-06	4.135E-07	2.100E-07	1.310E-07	5.857E-08	2.134E-08	1.066E-08	6.832E-09	4.918E-09
NNW	1.007E-05	2.359E-06	7.641E-07	3.966E-07	2.512E-07	1.151E-07	4.354E-08	2.234E-08	1.455E-08	1.059E-08
N	1.103E-05	2.623E-06	8.503E-07	4.413E-07	2.795E-07	1.280E-07	4.831E-08	2.473E-08	1.606E-08	1.168E-08
NNE	7.037E-06	1.675E-06	5.379E-07	2.777E-07	1.752E-07	7.973E-08	2.982E-08	1.516E-08	9.805E-09	7.105E-09
NE	3.653E-06	8.587E-07	2.729E-07	1.401E-07	8.811E-08	3.988E-08	1.480E-08	7.497E-09	4.840E-09	3.503E-09
ENE	2.240E-06	5.241E-07	1.672E-07	8.610E-08	5.423E-08	2.463E-08	9.188E-09	4.668E-09	3.020E-09	2.189E-09
E	2.320E-06	5.490E-07	1.733E-07	8.860E-08	5.552E-08	2.498E-08	9.181E-09	4.610E-09	2.960E-09	2.134E-09
ESE	2.935E-06	6.904E-07	2.173E-07	1.109E-07	6.941E-08	3.116E-08	1.141E-08	5.716E-09	3.665E-09	2.640E-09
SE	5.722E-06	1.339E-06	4.268E-07	2.195E-07	1.381E-07	6.262E-08	2.330E-08	1.181E-08	7.629E-09	5.525E-09
SSE	6.850E-06	1.598E-06	4.930E-07	2.486E-07	1.543E-07	6.832E-08	2.448E-08	1.207E-08	7.662E-09	5.479E-09

VENTS GROUND LEVEL RELEASES - JAN-JUN 1994
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	5.945E-05	1.966E-05	1.045E-05	5.225E-06	2.094E-06	1.132E-06	7.158E-07	4.986E-07	3.705E-07	2.884E-07	2.323E-07
SSW	3.011E-05	1.034E-05	5.540E-06	2.764E-06	1.090E-06	5.820E-07	3.647E-07	2.520E-07	1.861E-07	1.440E-07	1.154E-07
SW	1.871E-05	6.625E-06	3.545E-06	1.760E-06	6.868E-07	3.640E-07	2.268E-07	1.560E-07	1.147E-07	8.845E-08	7.068E-08
WSW	1.390E-05	4.959E-06	2.657E-06	1.316E-06	5.078E-07	2.670E-07	1.654E-07	1.132E-07	8.289E-08	6.370E-08	5.075E-08
W	1.031E-05	3.578E-06	1.900E-06	9.430E-07	3.700E-07	1.968E-07	1.230E-07	8.481E-08	6.249E-08	4.828E-08	3.864E-08
WNW	1.496E-05	5.211E-06	2.783E-06	1.384E-06	5.430E-07	2.890E-07	1.806E-07	1.246E-07	9.183E-08	7.097E-08	5.682E-08
NW	3.332E-05	1.118E-05	5.902E-06	2.932E-06	1.167E-06	6.275E-07	3.955E-07	2.748E-07	2.038E-07	1.583E-07	1.273E-07
NNW	6.134E-05	1.956E-05	1.024E-05	5.115E-06	2.090E-06	1.144E-06	7.310E-07	5.133E-07	3.840E-07	3.006E-07	2.434E-07
N	6.646E-05	2.116E-05	1.128E-05	5.684E-06	2.324E-06	1.273E-06	8.133E-07	5.711E-07	4.272E-07	3.344E-07	2.707E-07
NNE	4.190E-05	1.343E-05	7.218E-06	3.647E-06	1.482E-06	8.079E-07	5.144E-07	3.602E-07	2.689E-07	2.101E-07	1.698E-07
NE	2.154E-05	7.010E-06	3.742E-06	1.878E-06	7.573E-07	4.109E-07	2.607E-07	1.820E-07	1.356E-07	1.057E-07	8.528E-08
ENE	1.313E-05	4.319E-06	2.290E-06	1.144E-06	4.626E-07	2.515E-07	1.598E-07	1.118E-07	8.333E-08	6.504E-08	5.253E-08
E	1.352E-05	4.416E-06	2.387E-06	1.205E-06	4.841E-07	2.619E-07	1.658E-07	1.156E-07	8.594E-08	6.692E-08	5.394E-08
ESE	1.709E-05	5.608E-06	3.015E-06	1.518E-06	6.087E-07	3.289E-07	2.080E-07	1.449E-07	1.077E-07	8.381E-08	6.752E-08
SE	3.395E-05	1.105E-05	5.847E-06	2.925E-06	1.183E-06	6.428E-07	4.084E-07	2.855E-07	2.128E-07	1.661E-07	1.341E-07
SSE	3.908E-05	1.306E-05	7.055E-06	3.545E-06	1.402E-06	7.506E-07	4.712E-07	3.262E-07	2.412E-07	1.869E-07	1.500E-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	1.923E-07	9.855E-08	6.349E-08	3.584E-08	2.382E-08	1.728E-08	1.325E-08	1.056E-08	8.648E-09	7.236E-09	6.156E-09
SSW	9.506E-08	4.780E-08	3.039E-08	1.684E-08	1.104E-08	7.932E-09	6.033E-09	4.773E-09	3.886E-09	3.233E-09	2.738E-09
SW	5.807E-08	2.892E-08	1.826E-08	1.002E-08	6.522E-09	4.660E-09	3.530E-09	2.784E-09	2.261E-09	1.877E-09	1.587E-09
WSW	4.158E-08	2.049E-08	1.285E-08	6.997E-09	4.549E-09	3.250E-09	2.463E-09	1.944E-09	1.580E-09	1.315E-09	1.113E-09
W	3.179E-08	1.592E-08	1.010E-08	5.584E-09	3.663E-09	2.634E-09	2.007E-09	1.592E-09	1.300E-09	1.085E-09	9.214E-10
WNW	4.676E-08	2.344E-08	1.488E-08	8.240E-09	5.410E-09	3.893E-09	2.968E-09	2.354E-09	1.922E-09	1.605E-09	1.363E-09
NW	1.053E-07	5.372E-08	3.453E-08	1.946E-08	1.294E-08	9.399E-09	7.219E-09	5.762E-09	4.730E-09	3.967E-09	3.383E-09
NNW	2.023E-07	1.053E-07	6.863E-08	3.935E-08	2.643E-08	1.934E-08	1.494E-08	1.197E-08	9.858E-09	8.287E-09	7.081E-09
N	2.250E-07	1.171E-07	7.623E-08	4.365E-08	2.928E-08	2.140E-08	1.651E-08	1.322E-08	1.088E-08	9.135E-09	7.800E-09
NNE	1.409E-07	7.296E-08	4.734E-08	2.699E-08	1.805E-08	1.317E-08	1.014E-08	8.113E-09	6.669E-09	5.598E-09	4.777E-09
NE	7.047E-08	3.638E-08	2.351E-08	1.333E-08	8.887E-09	6.464E-09	4.966E-09	3.962E-09	3.250E-09	2.722E-09	2.318E-09
ENE	4.357E-08	2.251E-08	1.459E-08	8.302E-09	5.550E-09	4.046E-09	3.115E-09	2.490E-09	2.046E-09	1.717E-09	1.464E-09
E	4.466E-08	2.292E-08	1.479E-08	8.383E-09	5.593E-09	4.076E-09	3.139E-09	2.511E-09	2.066E-09	1.737E-09	1.484E-09
ESE	5.588E-08	2.863E-08	1.845E-08	1.044E-08	6.960E-09	5.068E-09	3.902E-09	3.120E-09	2.566E-09	2.156E-09	1.842E-09
SE	1.112E-07	5.741E-08	3.719E-08	2.117E-08	1.415E-08	1.032E-08	7.950E-09	6.359E-09	5.229E-09	4.391E-09	3.748E-09
SSE	1.237E-07	6.255E-08	3.994E-08	2.230E-08	1.473E-08	1.065E-08	8.144E-09	6.478E-09	5.302E-09	4.434E-09	3.773E-09

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

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	1.018E-05	2.362E-06	7.399E-07	3.758E-07	2.341E-07	1.038E-07	3.664E-08	1.741E-08	1.060E-08	7.255E-09
SSW	5.374E-06	1.236E-06	3.776E-07	1.889E-07	1.163E-07	5.057E-08	1.727E-08	8.002E-09	4.795E-09	3.243E-09
SW	3.436E-06	7.818E-07	2.351E-07	1.165E-07	7.127E-08	3.066E-08	1.030E-08	4.705E-09	2.798E-09	1.883E-09
WSW	2.572E-06	5.804E-07	1.716E-07	8.424E-08	5.119E-08	2.178E-08	7.209E-09	3.281E-09	1.954E-09	1.319E-09
W	1.848E-06	4.204E-07	1.274E-07	6.345E-08	3.896E-08	1.686E-08	5.733E-09	2.658E-09	1.599E-09	1.088E-09
WNW	2.701E-06	6.169E-07	1.871E-07	9.324E-08	5.729E-08	2.482E-08	8.458E-09	3.927E-09	2.365E-09	1.609E-09
NW	5.754E-06	1.319E-06	4.091E-07	2.067E-07	1.283E-07	5.664E-08	1.991E-08	9.471E-09	5.785E-09	3.777E-09
NNW	1.003E-05	2.342E-06	7.541E-07	3.891E-07	2.451E-07	1.106E-07	4.012E-08	1.947E-08	1.201E-08	8.305E-09
N	1.099E-05	2.603E-06	8.390E-07	4.329E-07	2.726E-07	1.229E-07	4.450E-08	2.155E-08	1.327E-08	9.156E-09
NNE	7.012E-06	1.663E-06	5.310E-07	2.726E-07	1.710E-07	7.668E-08	2.754E-08	1.326E-08	8.143E-09	5.611E-09
NE	3.640E-06	8.524E-07	2.693E-07	1.375E-07	8.592E-08	3.828E-08	1.362E-08	6.511E-09	3.978E-09	2.729E-09
ENE	2.232E-06	5.203E-07	1.651E-07	8.449E-08	5.292E-08	2.367E-08	8.475E-09	4.075E-09	2.500E-09	1.721E-09
E	2.313E-06	5.455E-07	1.713E-07	8.716E-08	5.435E-08	2.414E-08	8.568E-09	4.106E-09	2.521E-09	1.741E-09
ESE	2.926E-06	6.864E-07	2.150E-07	1.092E-07	6.804E-08	3.016E-08	1.067E-08	5.106E-09	3.133E-09	2.161E-09
SE	5.704E-06	1.330E-06	4.218E-07	2.158E-07	1.351E-07	6.038E-08	2.161E-08	1.039E-08	6.383E-09	4.401E-09
SSE	6.830E-06	1.589E-06	4.877E-07	2.448E-07	1.512E-07	6.609E-08	2.285E-08	1.073E-08	6.506E-09	4.446E-09

VENTS GROUND LEVEL RELEASES - JAN-JUN 1994
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	5.632E-05	1.799E-05	9.340E-06	4.591E-06	1.789E-06	9.442E-07	5.854E-07	4.006E-07	2.930E-07	2.248E-07	1.788E-07
SSW	2.852E-05	9.462E-06	4.950E-06	2.428E-06	9.306E-07	4.854E-07	2.981E-07	2.024E-07	1.471E-07	1.122E-07	8.874E-08
SW	1.772E-05	6.059E-06	3.166E-06	1.546E-06	5.861E-07	3.034E-07	1.852E-07	1.252E-07	9.056E-08	6.882E-08	5.426E-08
WSW	1.316E-05	4.535E-06	2.372E-06	1.155E-06	4.330E-07	2.223E-07	1.349E-07	9.067E-08	6.532E-08	4.946E-08	3.886E-08
W	9.764E-06	3.272E-06	1.697E-06	8.276E-07	3.155E-07	1.639E-07	1.003E-07	6.793E-08	4.924E-08	3.748E-08	2.959E-08
WNW	1.417E-05	4.765E-06	2.485E-06	1.214E-06	4.630E-07	2.406E-07	1.473E-07	9.980E-08	7.237E-08	5.510E-08	4.352E-08
NW	3.156E-05	1.022E-05	5.271E-06	2.574E-06	9.955E-07	5.229E-07	3.229E-07	2.204E-07	1.608E-07	1.231E-07	9.771E-08
NNW	5.811E-05	1.790E-05	9.153E-06	4.494E-06	1.785E-06	9.548E-07	5.979E-07	4.125E-07	3.038E-07	2.344E-07	1.873E-07
N	6.296E-05	1.936E-05	1.008E-05	4.994E-06	1.985E-06	1.062E-06	6.653E-07	4.590E-07	3.380E-07	2.608E-07	2.084E-07
NNE	3.969E-05	1.229E-05	6.450E-06	3.204E-06	1.265E-06	6.740E-07	4.207E-07	2.894E-07	2.127E-07	1.638E-07	1.306E-07
NE	2.040E-05	6.413E-06	3.344E-06	1.650E-06	6.469E-07	3.429E-07	2.133E-07	1.463E-07	1.073E-07	8.245E-08	6.566E-08
ENE	1.244E-05	3.952E-06	2.047E-06	1.006E-06	3.952E-07	2.099E-07	1.307E-07	8.982E-08	6.592E-08	5.072E-08	4.043E-08
E	1.280E-05	4.040E-06	2.132E-06	1.058E-06	4.132E-07	2.183E-07	1.354E-07	9.273E-08	6.786E-08	5.207E-08	4.141E-08
ESE	1.619E-05	5.129E-06	2.693E-06	1.333E-06	5.194E-07	2.741E-07	1.699E-07	1.162E-07	8.497E-08	6.516E-08	5.179E-08
SE	3.216E-05	1.010E-05	5.223E-06	2.569E-06	1.010E-06	5.360E-07	3.337E-07	2.292E-07	1.681E-07	1.293E-07	1.030E-07
SSE	3.701E-05	1.195E-05	6.301E-06	3.112E-06	1.197E-06	6.254E-07	3.848E-07	2.616E-07	1.903E-07	1.453E-07	1.151E-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	1.462E-07	7.155E-08	4.438E-08	2.365E-08	1.505E-08	1.055E-08	7.859E-09	6.106E-09	4.892E-09	4.013E-09	3.354E-09
SSW	7.220E-08	3.467E-08	2.121E-08	1.109E-08	6.964E-09	4.831E-09	3.568E-09	2.753E-09	2.192E-09	1.789E-09	1.488E-09
SW	4.402E-08	2.092E-08	1.270E-08	6.563E-09	4.085E-09	2.814E-09	2.067E-09	1.588E-09	1.259E-09	1.024E-09	8.493E-10
WSW	3.144E-08	1.476E-08	8.886E-09	4.547E-09	2.818E-09	1.935E-09	1.418E-09	1.087E-09	8.609E-10	6.992E-10	5.793E-10
W	2.404E-08	1.147E-08	6.987E-09	3.632E-09	2.272E-09	1.572E-09	1.159E-09	8.930E-10	7.105E-10	5.794E-10	4.818E-10
WNW	3.536E-08	1.690E-08	1.030E-08	5.362E-09	3.358E-09	2.325E-09	1.715E-09	1.322E-09	1.052E-09	8.583E-10	7.138E-10
NW	7.976E-08	3.883E-08	2.399E-08	1.273E-08	8.087E-09	5.660E-09	4.213E-09	3.271E-09	2.621E-09	2.150E-09	1.797E-09
NNW	1.538E-07	7.651E-08	4.799E-08	2.598E-08	1.671E-08	1.181E-08	8.854E-09	6.918E-09	5.570E-09	4.588E-09	3.849E-09
N	1.711E-07	8.506E-08	5.331E-08	2.882E-08	1.851E-08	1.306E-08	9.786E-09	7.638E-09	6.145E-09	5.058E-09	4.240E-09
NNE	1.071E-07	5.296E-08	3.307E-08	1.779E-08	1.139E-08	8.016E-09	5.993E-09	4.670E-09	3.751E-09	3.084E-09	2.583E-09
NE	5.376E-08	2.644E-08	1.645E-08	8.812E-09	5.629E-09	3.955E-09	2.953E-09	2.298E-09	1.844E-09	1.514E-09	1.267E-09
ENE	3.312E-08	1.635E-08	1.019E-08	5.477E-09	3.505E-09	2.467E-09	1.844E-09	1.437E-09	1.154E-09	9.491E-10	7.948E-10
E	3.386E-08	1.658E-08	1.028E-08	5.483E-09	3.493E-09	2.450E-09	1.826E-09	1.420E-09	1.139E-09	9.353E-10	7.824E-10
ESE	4.233E-08	2.068E-08	1.281E-08	6.817E-09	4.337E-09	3.040E-09	2.265E-09	1.760E-09	1.411E-09	1.158E-09	9.687E-10
SE	8.439E-08	4.159E-08	2.592E-08	1.391E-08	8.892E-09	6.255E-09	4.674E-09	3.641E-09	2.924E-09	2.404E-09	2.013E-09
SSE	9.373E-08	4.521E-08	2.774E-08	1.458E-08	9.198E-09	6.404E-09	4.745E-09	3.671E-09	2.931E-09	2.397E-09	1.998E-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	9.151E-06	2.036E-06	6.072E-07	2.978E-07	1.803E-07	7.605E-08	2.444E-08	1.067E-08	6.144E-09	4.029E-09
SSW	4.832E-06	1.065E-06	3.098E-07	1.496E-07	8.956E-08	3.703E-08	1.150E-08	4.895E-09	2.772E-09	1.797E-09
SW	3.089E-06	6.737E-07	1.927E-07	9.216E-08	5.478E-08	2.240E-08	6.825E-09	2.854E-09	1.600E-09	1.029E-09
WSW	2.312E-06	4.998E-07	1.405E-07	6.652E-08	3.925E-08	1.586E-08	4.743E-09	1.964E-09	1.095E-09	7.027E-10
W	1.660E-06	3.619E-07	1.043E-07	5.010E-08	2.987E-08	1.227E-08	3.773E-09	1.593E-09	8.994E-10	5.821E-10
WNW	2.427E-06	5.311E-07	1.532E-07	7.363E-08	4.393E-08	1.807E-08	5.569E-09	2.356E-09	1.332E-09	8.622E-10
NW	5.173E-06	1.136E-06	3.352E-07	1.635E-07	9.859E-08	4.133E-08	1.317E-08	5.728E-09	3.292E-09	2.158E-09
NNW	9.025E-06	2.018E-06	6.189E-07	3.084E-07	1.889E-07	8.101E-08	2.675E-08	1.193E-08	6.957E-09	4.605E-09
N	9.880E-06	2.244E-06	6.887E-07	3.432E-07	2.101E-07	9.007E-08	2.968E-08	1.321E-08	7.683E-09	5.077E-09
NNE	6.305E-06	1.433E-06	4.358E-07	2.160E-07	1.317E-07	5.615E-08	1.834E-08	8.106E-09	4.698E-09	3.096E-09
NE	3.273E-06	7.348E-07	2.211E-07	1.090E-07	6.623E-08	2.807E-08	9.095E-09	4.000E-09	2.312E-09	1.520E-09
ENE	2.007E-06	4.485E-07	1.355E-07	6.696E-08	4.077E-08	1.734E-08	5.649E-09	2.495E-09	1.446E-09	9.528E-10
E	2.079E-06	4.699E-07	1.405E-07	6.895E-08	4.178E-08	1.762E-08	5.665E-09	2.478E-09	1.429E-09	9.390E-10
ESE	2.630E-06	5.911E-07	1.762E-07	8.635E-08	5.225E-08	2.199E-08	7.046E-09	3.076E-09	1.771E-09	1.163E-09
SE	5.128E-06	1.146E-06	3.458E-07	1.708E-07	1.039E-07	4.414E-08	1.435E-08	6.326E-09	3.663E-09	2.413E-09
SSE	6.139E-06	1.368E-06	3.997E-07	1.936E-07	1.161E-07	4.823E-08	1.511E-08	6.485E-09	3.696E-09	2.407E-09

VENTS GROUND LEVEL RELEASES - JAN-JUN 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION

***** RELATIVE DEPOSITION PER UNIT AREA (MM²-2) 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
S	2.533E-07	8.565E-08	4.398E-08	2.091E-08	7.510E-09	3.724E-09	2.193E-09	1.436E-09	1.010E-09	7.488E-10	5.770E-10
SSW	1.333E-07	4.508E-08	2.315E-08	1.100E-08	3.953E-09	1.960E-09	1.154E-09	7.558E-10	5.318E-10	3.941E-10	3.037E-10
SW	9.217E-08	3.117E-08	1.600E-08	7.608E-09	2.733E-09	1.355E-09	7.980E-10	5.225E-10	3.677E-10	2.725E-10	2.100E-10
WSW	8.536E-08	2.886E-08	1.482E-08	7.046E-09	2.531E-09	1.255E-09	7.390E-10	4.839E-10	3.405E-10	2.523E-10	1.945E-10
W	6.347E-08	2.146E-08	1.102E-08	5.239E-09	1.882E-09	9.333E-10	5.496E-10	3.598E-10	2.532E-10	1.877E-10	1.446E-10
WNW	8.708E-08	2.945E-08	1.512E-08	7.188E-09	2.582E-09	1.280E-09	7.539E-10	4.937E-10	3.474E-10	2.574E-10	1.984E-10
NW	1.989E-07	6.727E-08	3.454E-08	1.642E-08	5.898E-09	2.925E-09	1.722E-09	1.128E-09	7.936E-10	5.881E-10	4.532E-10
NNW	2.477E-07	8.377E-08	4.301E-08	2.045E-08	7.345E-09	3.643E-09	2.145E-09	1.404E-09	9.882E-10	7.324E-10	5.644E-10
N	2.782E-07	9.407E-08	4.830E-08	2.296E-08	8.248E-09	4.091E-09	2.409E-09	1.577E-09	1.110E-09	8.224E-10	6.338E-10
NNE	1.785E-07	6.036E-08	3.099E-08	1.473E-08	5.292E-09	2.624E-09	1.545E-09	1.012E-09	7.120E-10	5.277E-10	4.066E-10
NE	9.571E-08	3.236E-08	1.662E-08	7.900E-09	2.838E-09	1.407E-09	8.286E-10	5.426E-10	3.818E-10	2.829E-10	2.180E-10
ENE	5.460E-08	1.846E-08	9.480E-09	4.507E-09	1.619E-09	8.029E-10	4.727E-10	3.095E-10	2.178E-10	1.614E-10	1.244E-10
E	6.862E-08	2.320E-08	1.191E-08	5.664E-09	2.035E-09	1.009E-09	5.941E-10	3.890E-10	2.737E-10	2.029E-10	1.563E-10
ESE	1.006E-07	3.402E-08	1.747E-08	8.305E-09	2.983E-09	1.479E-09	8.711E-10	5.704E-10	4.014E-10	2.975E-10	2.292E-10
SE	1.878E-07	6.351E-08	3.261E-08	1.550E-08	5.569E-09	2.762E-09	1.626E-09	1.065E-09	7.492E-10	5.553E-10	4.279E-10
SSE	2.742E-07	9.274E-08	4.762E-08	2.264E-08	8.131E-09	4.033E-09	2.374E-09	1.555E-09	1.094E-09	8.108E-10	6.248E-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
S	4.584E-10	2.036E-10	1.234E-10	6.235E-11	3.774E-11	2.530E-11	1.813E-11	1.361E-11	1.059E-11	8.456E-12	6.902E-12
SSW	2.413E-10	1.072E-10	6.493E-11	3.282E-11	1.986E-11	1.332E-11	9.543E-12	7.166E-12	5.572E-12	4.451E-12	3.633E-12
SW	1.660E-10	7.411E-11	4.489E-11	2.269E-11	1.373E-11	9.208E-12	6.598E-12	4.954E-12	3.852E-12	3.077E-12	2.512E-12
WSW	1.545E-10	6.863E-11	4.157E-11	2.101E-11	1.272E-11	8.527E-12	6.110E-12	4.588E-12	3.567E-12	2.850E-12	2.326E-12
W	1.149E-10	5.103E-11	3.091E-11	1.563E-11	9.457E-12	6.341E-12	4.544E-12	3.412E-12	2.653E-12	2.119E-12	1.730E-12
WNW	1.576E-10	7.001E-11	4.241E-11	2.144E-11	1.297E-11	8.699E-12	6.233E-12	4.680E-12	3.639E-12	2.907E-12	2.373E-12
NW	3.600E-10	1.599E-10	9.689E-11	4.897E-11	2.964E-11	1.987E-11	1.424E-11	1.069E-11	8.314E-12	6.641E-12	5.421E-12
NNW	4.483E-10	1.992E-10	1.207E-10	6.098E-11	3.691E-11	2.475E-11	1.773E-11	1.332E-11	1.035E-11	8.270E-12	6.750E-12
N	5.035E-10	2.237E-10	1.355E-10	6.848E-11	4.145E-11	2.779E-11	1.991E-11	1.495E-11	1.163E-11	9.287E-12	7.581E-12
NNE	3.230E-10	1.435E-10	8.693E-11	4.394E-11	2.659E-11	1.783E-11	1.278E-11	9.594E-12	7.459E-12	5.959E-12	4.863E-12
NE	1.732E-10	7.695E-11	4.661E-11	2.356E-11	1.426E-11	9.561E-12	6.851E-12	5.144E-12	4.000E-12	3.195E-12	2.608E-12
ENE	9.882E-11	4.390E-11	2.659E-11	1.344E-11	8.135E-12	5.455E-12	3.909E-12	2.935E-12	2.282E-12	1.823E-12	1.488E-12
E	1.242E-10	5.517E-11	3.342E-11	1.689E-11	1.022E-11	6.855E-12	4.912E-12	3.688E-12	2.868E-12	2.291E-12	1.870E-12
ESE	1.821E-10	8.090E-11	4.900E-11	2.477E-11	1.499E-11	1.005E-11	7.202E-12	5.408E-12	4.205E-12	3.359E-12	2.742E-12
SE	3.399E-10	1.510E-10	9.147E-11	4.624E-11	2.798E-11	1.876E-11	1.344E-11	1.010E-11	7.849E-12	6.270E-12	5.118E-12
SSE	4.964E-10	2.205E-10	1.336E-10	6.751E-11	4.086E-11	2.740E-11	1.963E-11	1.474E-11	1.146E-11	9.156E-12	7.473E-12

***** RELATIVE DEPOSITION PER UNIT AREA (MM²-2) BY DOWNWIND SECTORS
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	4.298E-08	8.805E-09	2.298E-09	1.032E-09	5.840E-10	2.246E-10	6.497E-11	2.575E-11	1.375E-11	8.511E-12
SSW	2.263E-08	4.634E-09	1.210E-09	5.434E-10	3.074E-10	1.182E-10	3.420E-11	1.355E-11	7.258E-12	4.480E-12
SW	1.564E-08	3.204E-09	8.364E-10	3.757E-10	2.125E-10	8.172E-11	2.364E-11	9.370E-12	5.004E-12	3.097E-12
WSW	1.449E-08	2.967E-09	7.746E-10	3.479E-10	1.968E-10	7.568E-11	2.190E-11	8.678E-12	4.634E-12	2.868E-12
W	1.077E-08	2.206E-09	5.760E-10	2.587E-10	1.464E-10	5.628E-11	1.628E-11	6.453E-12	3.446E-12	2.133E-12
WNW	1.478E-08	3.027E-09	7.902E-10	3.549E-10	2.008E-10	7.721E-11	2.234E-11	8.853E-12	4.727E-12	2.926E-12
NW	3.376E-08	6.915E-09	1.805E-09	8.108E-10	4.587E-10	1.764E-10	5.103E-11	2.022E-11	1.080E-11	6.685E-12
NNW	4.204E-08	8.611E-09	2.248E-09	1.010E-09	5.712E-10	2.196E-10	6.354E-11	2.518E-11	1.345E-11	8.324E-12
N	4.721E-08	9.671E-09	2.525E-09	1.134E-09	6.414E-10	2.467E-10	7.136E-11	2.828E-11	1.510E-11	9.348E-12
NNE	3.029E-08	6.204E-09	1.620E-09	7.274E-10	4.115E-10	1.583E-10	4.578E-11	1.815E-11	9.690E-12	5.990E-12
NE	1.624E-08	3.327E-09	8.685E-10	3.901E-10	2.207E-10	8.486E-11	2.455E-11	9.730E-12	5.196E-12	3.216E-12
ENE	9.266E-09	1.898E-09	4.955E-10	2.225E-10	1.259E-10	4.841E-11	1.401E-11	5.551E-12	2.964E-12	1.835E-12
E	1.165E-08	2.385E-09	6.227E-10	2.797E-10	1.582E-10	6.084E-11	1.760E-11	6.976E-12	3.725E-12	2.306E-12
ESE	1.708E-08	3.498E-09	9.131E-10	4.101E-10	2.320E-10	8.921E-11	2.581E-11	1.023E-11	5.462E-12	3.381E-12
SE	3.187E-08	6.529E-09	1.704E-09	7.655E-10	4.330E-10	1.665E-10	4.818E-11	1.909E-11	1.020E-11	6.311E-12
SSE	4.654E-08	9.533E-09	2.489E-09	1.118E-09	6.323E-10	2.432E-10	7.035E-11	2.788E-11	1.489E-11	9.216E-12

VENTS GROUND LEVEL RELEASES - JAN-JUN 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE		X/Q	X/Q	X/Q	D/Q
			(MILES)	(METERS)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	(PER SQ.METER)
					NO DECAY	2.260 DAY DECAY	8.000 DAY DECAY	
					UNDEPLETED	UNDEPLETED	DEPLETED	
A	SITE BOUNDARY	S	0.80	1287.	9.013E-06	8.977E-06	7.993E-06	3.740E-08
A	SITE BOUNDARY	SSW	0.82	1327.	4.429E-06	4.412E-06	3.921E-06	1.816E-08
A	SITE BOUNDARY	SW	0.98	1569.	1.877E-06	1.869E-06	1.644E-06	8.119E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.595E-06	1.589E-06	1.402E-06	8.610E-09
A	SITE BOUNDARY	W	0.91	1468.	1.181E-06	1.177E-06	1.039E-06	6.643E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.620E-06	1.614E-06	1.423E-06	8.484E-09
A	SITE BOUNDARY	NW	0.81	1307.	4.887E-06	4.870E-06	4.330E-06	2.821E-08
A	SITE BOUNDARY	NNW	0.69	1106.	1.178E-05	1.174E-05	1.054E-05	4.981E-08
A	SITE BOUNDARY	N	0.67	1086.	1.329E-05	1.324E-05	1.190E-05	5.768E-08
A	SITE BOUNDARY	NNE	0.60	965.	1.016E-05	1.013E-05	9.162E-06	4.484E-08
A	SITE BOUNDARY	NE	0.62	1005.	4.968E-06	4.951E-06	4.467E-06	2.260E-08
A	SITE BOUNDARY	ENE	0.59	945.	3.367E-06	3.356E-06	3.041E-06	1.420E-08
A	SITE BOUNDARY	E	0.53	845.	4.089E-06	4.079E-06	3.720E-06	2.143E-08
A	SITE BOUNDARY	ESE	0.54	865.	4.998E-06	4.987E-06	4.541E-06	3.024E-08
A	SITE BOUNDARY	SE	0.65	1046.	7.315E-06	7.293E-06	6.564E-06	4.147E-08
A	SITE BOUNDARY	SSE	0.81	1307.	5.865E-06	5.845E-06	5.197E-06	3.888E-08
A	NEAR. RESIDENCE	SW	1.30	2092.	9.568E-07	9.513E-07	8.206E-07	3.902E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	7.096E-07	7.061E-07	6.087E-07	3.614E-09
A	NEAR. RESIDENCE	W	1.00	1609.	9.464E-07	9.430E-07	8.276E-07	5.239E-09
A	NEAR. RESIDENCE	WNW	1.60	2575.	4.732E-07	4.704E-07	3.990E-07	2.203E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	3.794E-06	3.780E-06	3.341E-06	2.158E-08
A	NEAR. RESIDENCE	NNW	1.90	3058.	1.285E-06	1.271E-06	1.066E-06	4.122E-09
A	NEAR. RESIDENCE	N	3.00	4828.	5.806E-07	5.711E-07	4.590E-07	1.577E-09
A	NEAR. RESIDENCE	NNE	2.70	4345.	4.485E-07	4.421E-07	3.589E-07	1.291E-09
A	NEAR. RESIDENCE	ENE	1.70	2736.	3.570E-07	3.537E-07	2.992E-07	1.190E-09
A	NEAR. RESIDENCE	E	2.00	3219.	2.643E-07	2.619E-07	2.183E-07	1.009E-09
A	NEAR. RESIDENCE	ESE	2.75	4426.	1.740E-07	1.719E-07	1.391E-07	6.973E-10
A	NEAREST COW	NNW	3.50	5633.	3.914E-07	3.839E-07	3.037E-07	9.880E-10
A	NEAREST GARDEN	SW	1.30	2092.	9.568E-07	9.513E-07	8.206E-07	3.902E-09
A	NEAREST GARDEN	WSW	2.60	4184.	1.538E-07	1.523E-07	1.238E-07	6.744E-10
A	NEAREST GARDEN	WNW	1.60	2575.	4.732E-07	4.704E-07	3.990E-07	2.203E-09
A	NEAREST GARDEN	NW	1.90	3058.	7.053E-07	6.995E-07	5.854E-07	3.310E-09
A	NEAREST GARDEN	NNW	1.90	3058.	1.285E-06	1.271E-06	1.066E-06	4.122E-09
A	NEAREST GARDEN	N	3.00	4828.	5.806E-07	5.711E-07	4.590E-07	1.577E-09
A	NEAREST GARDEN	NNE	2.70	4345.	4.485E-07	4.421E-07	3.589E-07	1.291E-09
A	NEAREST GARDEN	ENE	1.70	2736.	3.570E-07	3.537E-07	2.992E-07	1.190E-09
A	NEAREST GARDEN	E	2.00	3219.	2.643E-07	2.619E-07	2.183E-07	1.009E-09
A	NEAREST GARDEN	ESE	2.40	3863.	2.283E-07	2.259E-07	1.851E-07	9.586E-10
A	NEAREST GARDEN	SE	2.20	3541.	5.341E-07	5.285E-07	4.369E-07	2.199E-09

Atmospheric Diffusion Estimates

Elevated Releases

January-March 1994

ERP ELEVATED STACK RELEASES - JAN-MAR 1994
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	2.244E-08	1.202E-07	1.753E-07	1.648E-07	1.348E-07	1.053E-07	8.264E-08	6.610E-08	5.403E-08	5.700E-08	5.666E-08	
SSW	1.532E-09	1.646E-08	4.234E-08	5.729E-08	6.180E-08	5.334E-08	4.406E-08	4.607E-08	4.480E-08	3.801E-08	3.268E-08	
SW	3.271E-11	4.428E-09	4.042E-08	9.148E-08	1.281E-07	8.345E-08	5.857E-08	4.356E-08	3.386E-08	2.722E-08	2.247E-08	
WSW	7.561E-16	7.848E-10	3.857E-08	1.057E-07	1.596E-07	9.742E-08	6.569E-08	4.753E-08	3.620E-08	2.866E-08	2.337E-08	
W	2.759E-10	4.153E-08	1.601E-07	1.827E-07	1.425E-07	8.478E-08	5.639E-08	4.046E-08	3.064E-08	2.416E-08	1.964E-08	
WNW	1.768E-10	1.704E-08	1.290E-07	2.167E-07	2.385E-07	1.426E-07	9.542E-08	7.167E-08	5.637E-08	4.444E-08	3.616E-08	
NW	1.159E-08	4.275E-08	1.310E-07	2.532E-07	3.826E-07	2.265E-07	1.510E-07	1.113E-07	8.637E-08	6.825E-08	5.565E-08	
NNW	2.698E-09	2.223E-08	5.639E-08	8.631E-08	1.151E-07	1.083E-07	9.808E-08	8.730E-08	7.879E-08	6.221E-08	5.070E-08	
N	1.090E-08	2.041E-08	3.391E-08	4.261E-08	4.801E-08	4.484E-08	3.922E-08	3.318E-08	2.829E-08	2.441E-08	2.131E-08	
NNE	1.655E-08	6.376E-08	7.641E-08	6.335E-08	4.878E-08	3.897E-08	3.167E-08	2.622E-08	2.212E-08	1.897E-08	1.652E-08	
NE	2.171E-08	6.640E-08	7.160E-08	6.236E-08	5.362E-08	4.504E-08	3.744E-08	3.136E-08	2.661E-08	2.290E-08	1.998E-08	
ENE	1.557E-08	2.101E-08	2.613E-08	2.743E-08	2.678E-08	2.295E-08	1.912E-08	1.602E-08	1.360E-08	1.172E-08	1.024E-08	
E	1.698E-10	1.161E-08	2.426E-08	2.787E-08	2.812E-08	2.450E-08	2.061E-08	1.735E-08	1.476E-08	1.272E-08	1.110E-08	
ESE	1.979E-09	1.520E-08	2.759E-08	3.162E-08	2.762E-08	2.310E-08	1.946E-08	1.652E-08	1.420E-08	1.237E-08		
SE	3.063E-09	4.043E-08	7.587E-08	8.306E-08	7.661E-08	6.252E-08	5.019E-08	4.076E-08	3.369E-08	2.834E-08	2.422E-08	
SSE	6.268E-08	1.059E-07	1.343E-07	1.376E-07	1.258E-07	1.028E-07	8.272E-08	6.732E-08	5.580E-08	7.276E-08	8.236E-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	4.881E-08	2.759E-08	1.738E-08	9.568E-09	6.368E-09	4.638E-09	3.564E-09	2.855E-09	2.361E-09	1.997E-09	1.718E-09	
SSW	2.901E-08	1.869E-08	1.191E-08	6.667E-09	4.592E-09	3.397E-09	2.623E-09	2.110E-09	1.750E-09	1.484E-09	1.281E-09	
SW	1.994E-08	1.262E-08	8.065E-09	4.515E-09	3.051E-09	2.244E-09	1.748E-09	1.402E-09	1.159E-09	9.804E-10	8.443E-10	
WSW	2.000E-08	1.141E-08	7.594E-09	4.382E-09	2.890E-09	2.096E-09	1.615E-09	1.296E-09	1.072E-09	9.070E-10	7.815E-10	
W	1.636E-08	8.509E-09	5.743E-09	3.464E-09	2.426E-09	1.768E-09	1.363E-09	1.095E-09	9.066E-10	7.679E-10	6.622E-10	
WNW	3.044E-08	1.653E-08	1.100E-08	6.495E-09	4.402E-09	3.258E-09	2.554E-09	2.074E-09	1.726E-09	1.467E-09	1.269E-09	
NW	4.703E-08	2.592E-08	1.751E-08	1.050E-08	7.064E-09	5.207E-09	4.128E-09	3.361E-09	2.805E-09	2.393E-09	2.077E-09	
NNW	4.329E-08	2.468E-08	1.605E-08	9.247E-09	6.280E-09	4.660E-09	3.686E-09	3.025E-09	2.581E-09	2.224E-09	1.934E-09	
N	1.884E-08	1.183E-08	9.684E-09	7.624E-09	6.382E-09	5.286E-09	4.161E-09	3.389E-09	2.832E-09	2.418E-09	2.101E-09	
NNE	1.798E-08	2.328E-08	1.502E-08	8.580E-09	5.804E-09	4.295E-09	3.363E-09	2.737E-09	2.292E-09	1.961E-09	1.706E-09	
NE	2.171E-08	2.906E-08	1.885E-08	1.084E-08	7.355E-09	5.457E-09	4.340E-09	3.568E-09	3.006E-09	2.572E-09	2.239E-09	
ENE	1.101E-08	1.709E-08	1.132E-08	6.659E-09	4.581E-09	3.431E-09	2.819E-09	2.365E-09	1.986E-09	1.704E-09	1.486E-09	
E	1.173E-08	1.626E-08	1.075E-08	6.320E-09	4.347E-09	3.255E-09	2.572E-09	2.109E-09	1.838E-09	1.619E-09	1.412E-09	
ESE	1.267E-08	1.281E-08	8.357E-09	4.816E-09	3.264E-09	2.416E-09	1.891E-09	1.537E-09	1.286E-09	1.098E-09	9.544E-10	
SE	2.100E-08	1.230E-08	8.999E-09	5.936E-09	4.193E-09	3.211E-09	2.591E-09	2.167E-09	1.806E-09	1.538E-09	1.332E-09	
SSE	6.924E-08	3.667E-08	2.322E-08	1.289E-08	8.537E-09	6.214E-09	4.799E-09	3.861E-09	3.200E-09	2.713E-09	2.341E-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	1.584E-07	1.284E-07	8.208E-08	5.861E-08	5.385E-08	2.777E-08	9.882E-09	4.670E-09	2.870E-09	2.002E-09	
SSW	4.323E-08	5.704E-08	4.734E-08	4.258E-08	3.290E-08	1.797E-08	6.911E-09	3.406E-09	2.120E-09	1.488E-09	
SW	5.512E-08	1.001E-07	5.920E-08	3.410E-08	2.294E-08	1.222E-08	4.653E-09	2.261E-09	1.408E-09	9.829E-10	
WSW	6.001E-08	1.200E-07	6.689E-08	3.657E-08	2.369E-08	1.162E-08	4.433E-09	2.115E-09	1.302E-09	9.094E-10	
W	1.438E-07	1.258E-07	5.759E-08	3.098E-08	1.977E-08	9.024E-09	3.509E-09	1.781E-09	1.100E-09	7.698E-10	
WNW	1.431E-07	1.910E-07	9.849E-08	5.619E-08	3.649E-08	1.716E-08	6.565E-09	3.282E-09	2.078E-09	1.471E-09	
NW	1.657E-07	2.845E-07	1.553E-07	8.660E-08	5.619E-08	2.687E-08	1.053E-08	5.271E-09	3.369E-09	2.398E-09	
NNW	6.210E-08	1.057E-07	9.649E-08	7.490E-08	5.137E-08	2.498E-08	9.441E-09	4.702E-09	3.045E-09	2.222E-09	
N	3.478E-08	4.540E-08	3.830E-08	2.821E-08	2.131E-08	1.244E-08	7.530E-09	4.702E-09	3.397E-09	2.423E-09	
NNE	6.779E-08	4.766E-08	3.144E-08	2.209E-08	1.779E-08	1.843E-08	8.778E-09	4.324E-09	2.746E-09	1.964E-09	
NE	6.634E-08	5.175E-08	3.703E-08	2.655E-08	2.148E-08	2.289E-08	1.107E-08	5.516E-09	3.574E-09	2.577E-09	
ENE	2.557E-08	2.522E-08	1.890E-08	1.357E-08	1.096E-08	1.317E-08	6.770E-09	3.493E-09	2.351E-09	1.707E-09	
E	2.305E-08	2.646E-08	2.634E-08	1.472E-08	1.181E-08	1.281E-08	6.428E-09	3.273E-09	2.138E-09	1.607E-09	
ESE	2.663E-08	2.991E-08	2.288E-08	1.648E-08	1.302E-08	1.080E-08	4.913E-09	2.432E-09	1.542E-09	1.101E-09	
SE	7.119E-08	7.178E-08	4.971E-08	3.367E-08	2.425E-08	1.276E-08	5.842E-09	3.225E-09	2.150E-09	1.541E-09	
SSE	1.295E-07	1.182E-07	8.192E-08	6.555E-08	7.465E-08	3.793E-08	1.325E-08	6.268E-09	3.877E-09	2.719E-09	

ERP ELEVATED STACK RELEASES - JAN-MAR 1994
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	2.244E-08	1.201E-07	1.751E-07	1.646E-07	1.345E-07	1.050E-07	8.231E-08	6.578E-08	5.373E-08	5.662E-08	5.622E-08	
SSW	1.532E-09	1.645E-08	4.229E-08	5.721E-08	6.166E-08	5.318E-08	4.389E-08	4.586E-08	4.456E-08	3.777E-08	3.244E-08	
SW	3.270E-11	4.423E-09	4.037E-08	9.130E-08	1.276E-07	8.307E-08	5.823E-08	4.325E-08	3.357E-08	2.695E-08	2.222E-08	
WSW	7.559E-16	7.843E-10	3.852E-08	1.055E-07	1.591E-07	9.700E-08	6.533E-08	4.722E-08	3.592E-08	2.840E-08	2.313E-08	
W	2.758E-10	4.149E-08	1.599E-07	1.823E-07	1.421E-07	8.445E-08	5.611E-08	4.022E-08	3.043E-08	2.397E-08	1.947E-08	
WNW	1.767E-10	1.703E-08	1.289E-07	2.164E-07	2.378E-07	1.420E-07	9.494E-08	7.122E-08	5.595E-08	4.406E-08	3.580E-08	
NW	1.158E-08	4.273E-08	1.309E-07	2.526E-07	3.815E-07	2.256E-07	1.502E-07	1.107E-07	8.576E-08	6.770E-08	5.514E-08	
NNW	2.698E-09	2.221E-08	5.634E-08	8.619E-08	1.148E-07	1.080E-07	9.766E-08	8.682E-08	7.825E-08	6.171E-08	5.025E-08	
N	1.090E-08	2.040E-08	3.388E-08	4.255E-08	4.788E-08	4.466E-08	3.902E-08	3.298E-08	2.810E-08	2.422E-08	2.112E-08	
NNE	1.654E-08	6.372E-08	7.633E-08	6.325E-08	4.865E-08	3.882E-08	3.151E-08	2.606E-08	2.196E-08	1.881E-08	1.636E-08	
NE	2.171E-08	6.636E-08	7.153E-08	6.227E-08	5.348E-08	4.488E-08	3.728E-08	3.119E-08	2.645E-08	2.274E-08	1.982E-08	
ENE	1.557E-08	2.100E-08	2.610E-08	2.739E-08	2.671E-08	2.287E-08	1.904E-08	1.593E-08	1.351E-08	1.163E-08	1.015E-08	
E	1.697E-10	1.160E-08	2.424E-08	2.783E-08	2.805E-08	2.441E-08	2.052E-08	1.725E-08	1.466E-08	1.262E-08	1.101E-08	
ESE	1.978E-09	1.520E-08	2.756E-08	3.158E-08	3.176E-08	2.755E-08	2.310E-08	1.939E-08	1.644E-08	1.413E-08	1.230E-08	
SE	3.063E-09	4.042E-08	7.582E-08	8.298E-08	7.649E-08	6.238E-08	5.005E-08	4.061E-08	3.354E-08	2.820E-08	2.408E-08	
SSE	6.266E-08	1.059E-07	1.342E-07	1.375E-07	1.256E-07	1.026E-07	8.248E-08	6.709E-08	5.557E-08	7.240E-08	8.188E-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	4.837E-08	2.720E-08	1.705E-08	9.295E-09	6.124E-09	4.415E-09	3.359E-09	2.664E-09	2.182E-09	1.827E-09	1.556E-09	
SSW	2.878E-08	1.841E-08	1.168E-08	6.462E-09	4.393E-09	3.208E-09	2.448E-09	1.946E-09	1.594E-09	1.335E-09	1.139E-09	
SW	1.970E-08	1.237E-08	7.851E-09	4.335E-09	2.888E-09	2.095E-09	1.608E-09	1.272E-09	1.037E-09	8.651E-10	7.347E-10	
WSW	1.978E-08	1.121E-08	7.421E-09	4.232E-09	2.759E-09	1.978E-09	1.506E-09	1.195E-09	9.768E-10	8.171E-10	6.959E-10	
W	1.620E-08	8.381E-09	5.627E-09	3.359E-09	2.328E-09	1.678E-09	1.281E-09	1.018E-09	8.344E-10	6.995E-10	5.971E-10	
NNW	3.011E-08	1.625E-08	1.075E-08	6.271E-09	4.199E-09	3.070E-09	2.378E-09	1.907E-09	1.569E-09	1.318E-09	1.127E-09	
NW	4.655E-08	2.553E-08	1.716E-08	1.019E-08	6.791E-09	4.959E-09	3.895E-09	3.142E-09	2.598E-09	2.196E-09	1.889E-09	
NNW	4.285E-08	2.428E-08	1.570E-08	8.943E-09	6.003E-09	4.404E-09	3.443E-09	2.792E-09	2.352E-09	2.002E-09	1.721E-09	
N	1.865E-08	1.166E-08	9.501E-09	7.415E-09	6.139E-09	5.025E-09	3.914E-09	3.155E-09	2.611E-09	2.207E-09	1.899E-09	
NNE	1.780E-08	2.295E-08	1.475E-08	8.348E-09	5.597E-09	4.107E-09	3.188E-09	2.573E-09	2.137E-09	1.813E-09	1.564E-09	
NE	2.152E-08	2.864E-08	1.849E-08	1.052E-08	7.067E-09	5.190E-09	4.084E-09	3.322E-09	2.769E-09	2.345E-09	2.020E-09	
ENE	1.090E-08	1.680E-08	1.106E-08	6.436E-09	4.378E-09	3.243E-09	2.636E-09	2.189E-09	1.818E-09	1.543E-09	1.332E-09	
E	1.162E-08	1.599E-08	1.051E-08	6.102E-09	4.147E-09	3.068E-09	2.396E-09	1.941E-09	1.669E-09	1.451E-09	1.251E-09	
ESE	1.259E-08	1.268E-08	8.249E-09	4.723E-09	3.181E-09	2.339E-09	1.819E-09	1.470E-09	1.221E-09	1.037E-09	8.951E-10	
SE	2.086E-08	1.218E-08	8.881E-09	5.818E-09	4.081E-09	3.104E-09	2.487E-09	2.064E-09	1.708E-09	1.445E-09	1.243E-09	
SSE	6.880E-08	3.631E-08	2.292E-08	1.264E-08	8.318E-09	6.015E-09	4.616E-09	3.690E-09	3.038E-09	2.559E-09	2.195E-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	1.582E-07	1.281E-07	8.176E-08	5.827E-08	5.343E-08	2.739E-08	9.609E-09	4.448E-09	2.679E-09	1.832E-09	
SSW	4.318E-08	5.690E-08	4.715E-08	4.234E-08	3.266E-08	1.772E-08	6.701E-09	3.220E-09	1.955E-09	1.339E-09	
SW	5.502E-08	9.975E-08	5.887E-08	3.382E-08	2.269E-08	1.199E-08	4.473E-09	2.112E-09	1.279E-09	8.678E-10	
WSW	5.991E-08	1.196E-07	6.653E-08	3.629E-08	2.345E-08	1.143E-08	4.286E-09	1.997E-09	1.201E-09	8.196E-10	
W	1.435E-07	1.254E-07	5.731E-08	3.076E-08	1.959E-08	8.894E-09	3.405E-09	1.692E-09	1.023E-09	7.015E-10	
WNW	1.429E-07	1.905E-07	9.800E-08	5.578E-08	3.614E-08	1.689E-08	6.345E-09	3.095E-09	1.913E-09	1.321E-09	
NW	1.655E-07	2.836E-07	1.545E-07	8.600E-08	5.568E-08	2.648E-08	1.023E-08	5.022E-09	3.150E-09	2.202E-09	
NNW	6.202E-08	1.054E-07	9.607E-08	7.440E-08	5.091E-08	2.460E-08	9.139E-09	4.446E-09	2.810E-09	2.002E-09	
N	3.474E-08	4.526E-08	3.811E-08	2.801E-08	2.112E-08	1.225E-08	7.312E-09	4.878E-09	3.165E-09	2.213E-09	
NNE	6.772E-08	4.753E-08	3.128E-08	2.193E-08	1.762E-08	1.816E-08	8.547E-09	4.137E-09	2.583E-09	1.817E-09	
NE	6.627E-08	5.161E-08	3.687E-08	2.639E-08	2.132E-08	2.254E-08	1.075E-08	5.248E-09	3.329E-09	2.351E-09	
ENE	2.554E-08	2.515E-08	1.881E-08	1.348E-08	1.087E-08	1.294E-08	6.549E-09	3.303E-09	2.176E-09	1.547E-09	
E	2.303E-08	2.638E-08	2.025E-08	1.463E-08	1.171E-08	1.258E-08	6.212E-09	3.087E-09	1.967E-09	1.442E-09	
ESE	2.660E-08	2.985E-08	2.280E-08	1.640E-08	1.295E-08	1.069E-08	4.821E-09	2.355E-09	1.475E-09	1.039E-09	
SE	7.113E-08	7.166E-08	4.956E-08	3.353E-08	2.411E-08	1.264E-08	5.726E-09	3.118E-09	2.049E-09	1.448E-09	
SSE	1.294E-07	1.180E-07	8.169E-08	6.527E-08	7.422E-08	3.758E-08	1.300E-08	6.070E-09	3.706E-09	2.566E-09	

ERP ELEVATED STACK RELEASES - JAN-MAR 1994
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	2.244E-08	1.191E-07	1.720E-07	1.615E-07	1.317E-07	1.022E-07	7.963E-08	6.323E-08	5.133E-08	5.400E-08	5.352E-08	
SSW	1.532E-09	1.632E-08	4.185E-08	5.678E-08	6.093E-08	5.220E-08	4.279E-08	4.451E-08	4.309E-08	3.635E-08	3.109E-08	
SW	3.271E-11	4.394E-09	4.024E-08	9.124E-08	1.262E-07	8.123E-08	5.643E-08	4.160E-08	3.208E-08	2.561E-08	2.101E-08	
WSW	7.561E-16	7.847E-10	3.856E-08	1.055E-07	1.572E-07	9.493E-08	6.343E-08	4.553E-08	3.443E-08	2.708E-08	2.196E-08	
W	2.759E-10	4.127E-08	1.588E-07	1.797E-07	1.383E-07	8.131E-08	5.354E-08	3.808E-08	2.862E-08	2.241E-08	1.810E-08	
WNW	1.768E-10	1.696E-08	1.285E-07	2.145E-07	2.334E-07	1.380E-07	9.154E-08	6.832E-08	5.346E-08	4.188E-08	3.385E-08	
NW	1.159E-08	4.237E-08	1.295E-07	2.509E-07	3.764E-07	2.207E-07	1.460E-07	1.070E-07	8.265E-08	6.494E-08	5.263E-08	
NNW	2.698E-09	2.203E-08	5.568E-08	8.557E-08	1.136E-07	1.062E-07	9.581E-08	8.509E-08	7.670E-08	6.026E-08	4.885E-08	
N	1.090E-08	2.023E-08	3.344E-08	4.217E-08	4.733E-08	4.394E-08	3.820E-08	3.213E-08	2.727E-08	2.342E-08	2.036E-08	
NNE	1.654E-08	6.318E-08	7.479E-08	6.182E-08	4.749E-08	3.780E-08	3.058E-08	2.521E-08	2.118E-08	1.810E-08	1.570E-08	
NE	2.171E-08	6.579E-08	7.017E-08	6.108E-08	5.247E-08	4.390E-08	3.632E-08	3.027E-08	2.558E-08	2.192E-08	1.906E-08	
ENE	1.557E-08	2.082E-08	2.569E-08	2.702E-08	2.631E-08	2.241E-08	1.856E-08	1.545E-08	1.305E-08	1.119E-08	9.743E-09	
E	1.698E-10	1.151E-08	2.387E-08	2.746E-08	2.763E-08	2.393E-08	2.002E-08	1.676E-08	1.419E-08	1.217E-08	1.058E-08	
ESE	1.978E-09	1.507E-08	2.717E-08	3.120E-08	3.131E-08	2.703E-08	2.256E-08	1.885E-08	1.592E-08	1.363E-08	1.183E-08	
SE	3.063E-09	4.008E-08	7.467E-08	8.187E-08	7.522E-08	6.097E-08	4.860E-08	3.920E-08	3.218E-08	2.691E-08	2.287E-08	
SSE	6.267E-08	1.050E-07	1.321E-07	1.357E-07	1.236E-07	1.003E-07	8.014E-08	6.477E-08	5.334E-08	4.967E-08	7.899E-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	4.586E-08	2.523E-08	1.539E-08	7.995E-09	5.019E-09	3.479E-09	2.562E-09	1.975E-09	1.577E-09	1.294E-09	1.082E-09	
SSW	2.749E-08	1.732E-08	1.069E-08	5.621E-09	3.632E-09	2.574E-09	1.914E-09	1.488E-09	1.196E-09	9.849E-10	8.268E-10	
SW	1.857E-08	1.151E-08	7.122E-09	3.753E-09	2.382E-09	1.660E-09	1.241E-09	9.608E-10	7.684E-10	6.302E-10	5.272E-10	
WSW	1.871E-08	1.039E-08	6.710E-09	3.667E-09	2.306E-09	1.607E-09	1.194E-09	9.275E-10	7.443E-10	6.124E-10	5.139E-10	
W	1.499E-08	7.610E-09	5.046E-09	2.894E-09	1.924E-09	1.307E-09	1.002E-09	7.796E-10	6.266E-10	5.138E-10	4.338E-10	
WNW	2.833E-08	1.490E-08	9.599E-09	5.314E-09	3.350E-09	2.336E-09	1.755E-09	1.374E-09	1.106E-09	9.114E-10	7.656E-10	
NW	4.423E-08	2.363E-08	1.546E-08	8.703E-09	5.541E-09	3.896E-09	2.973E-09	2.342E-09	1.895E-09	1.571E-09	1.327E-09	
NNW	4.148E-08	2.292E-08	1.439E-08	7.717E-09	4.830E-09	3.344E-09	2.492E-09	1.946E-09	1.597E-09	1.331E-09	1.123E-09	
N	1.793E-08	1.111E-08	9.051E-09	7.119E-09	5.835E-09	4.612E-09	3.519E-09	2.786E-09	2.269E-09	1.891E-09	1.606E-09	
NNE	1.714E-08	2.225E-08	1.388E-08	7.477E-09	4.803E-09	3.402E-09	2.564E-09	2.017E-09	1.636E-09	1.360E-09	1.151E-09	
NE	2.074E-08	2.782E-08	1.744E-08	9.424E-09	6.024E-09	4.247E-09	3.239E-09	2.575E-09	2.103E-09	1.749E-09	1.482E-09	
ENE	1.048E-08	1.643E-08	1.052E-08	5.766E-09	3.657E-09	2.557E-09	1.977E-09	1.583E-09	1.281E-09	1.062E-09	8.969E-10	
E	1.119E-08	1.560E-08	9.973E-09	5.665E-09	3.468E-09	2.425E-09	1.805E-09	1.402E-09	1.161E-09	9.773E-10	8.228E-10	
ESE	1.211E-08	1.224E-08	7.731E-09	4.170E-09	2.623E-09	1.823E-09	1.350E-09	1.044E-09	8.345E-10	6.834E-10	5.708E-10	
SE	1.972E-08	1.130E-08	8.166E-09	5.297E-09	3.688E-09	2.795E-09	2.239E-09	1.851E-09	1.505E-09	1.253E-09	1.063E-09	
SSE	6.598E-08	3.378E-08	2.063E-08	1.080E-08	6.794E-09	4.735E-09	3.521E-09	2.737E-09	2.198E-09	1.810E-09	1.520E-09	

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

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	0.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.556E-07	1.252E-07	7.910E-08	5.575E-08	5.083E-08	2.544E-08	8.316E-09	3.523E-09	1.991E-09	1.299E-09
SSW	4.281E-08	5.613E-08	4.599E-08	4.093E-08	3.132E-08	1.663E-08	5.864E-09	2.592E-09	1.499E-09	9.890E-10
SW	5.494E-08	9.844E-08	5.711E-08	3.233E-08	2.147E-08	1.113E-08	3.892E-09	1.685E-09	9.676E-10	6.330E-10
WSW	5.992E-08	1.181E-07	6.467E-08	3.480E-08	2.227E-08	1.060E-08	3.738E-09	1.628E-09	9.339E-10	6.150E-10
W	1.420E-07	1.222E-07	5.476E-08	2.896E-08	1.823E-08	8.111E-09	2.941E-09	1.363E-09	7.849E-10	5.184E-10
WNW	1.419E-07	1.868E-07	9.463E-08	5.329E-08	3.418E-08	1.553E-08	5.393E-09	2.374E-09	1.381E-09	9.151E-10
NW	1.641E-07	2.793E-07	1.503E-07	8.287E-08	5.317E-08	2.457E-08	8.798E-09	3.966E-09	2.352E-09	1.577E-09
NNW	6.149E-08	1.041E-07	9.429E-08	7.284E-08	4.950E-08	2.326E-08	7.918E-09	3.399E-09	1.969E-09	1.333E-09
N	3.438E-08	4.468E-08	3.730E-08	2.719E-08	2.036E-08	1.171E-08	6.977E-09	4.501E-09	2.798E-09	1.897E-09
NNE	6.645E-08	4.637E-08	3.036E-08	2.116E-08	1.694E-08	1.740E-08	7.711E-09	3.441E-09	2.028E-09	1.365E-09
NE	6.516E-08	5.057E-08	3.592E-08	2.553E-08	2.053E-08	2.163E-08	9.694E-09	4.318E-09	2.585E-09	1.755E-09
ENE	2.520E-08	2.473E-08	1.834E-08	1.303E-08	1.045E-08	1.248E-08	5.884E-09	2.618E-09	1.581E-09	1.066E-09
E	2.272E-08	2.595E-08	1.976E-08	1.415E-08	1.128E-08	1.212E-08	5.579E-09	2.455E-09	1.425E-09	9.744E-10
ESE	2.627E-08	2.938E-08	2.226E-08	1.588E-08	1.247E-08	1.021E-08	4.274E-09	1.847E-09	1.052E-09	6.865E-10
SE	7.018E-08	7.037E-08	4.814E-08	3.218E-08	2.290E-08	1.178E-08	5.219E-09	2.811E-09	1.830E-09	1.257E-09
SSE	1.277E-07	1.160E-07	7.938E-08	6.283E-08	7.141E-08	3.509E-08	1.120E-08	4.799E-09	2.756E-09	1.818E-09

ERP ELEVATED STACK RELEASES - JAN-MAR 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION

***** RELATIVE DEPOSITION PER UNIT AREA (MM-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
S	1.098E-08	9.008E-09	7.774E-09	5.436E-09	2.684E-09	1.656E-09	1.123E-09	8.078E-10	6.054E-10	4.820E-10	4.395E-10
SSW	1.434E-09	1.670E-09	2.164E-09	1.923E-09	1.114E-09	7.295E-10	5.096E-10	3.722E-10	3.523E-10	2.663E-10	2.084E-10
SW	3.341E-10	6.180E-10	1.038E-09	1.011E-09	1.168E-09	6.391E-10	3.971E-10	2.701E-10	1.954E-10	1.479E-10	1.157E-10
WSW	6.899E-11	4.139E-10	8.814E-10	1.878E-09	1.130E-09	6.148E-10	3.803E-10	2.578E-10	1.862E-10	1.407E-10	1.101E-10
W	3.192E-10	3.332E-09	3.110E-09	2.017E-09	9.763E-10	5.242E-10	3.219E-10	2.170E-10	1.559E-10	1.174E-10	9.158E-11
WNW	6.154E-10	9.194E-10	4.341E-09	3.231E-09	2.001E-09	1.007E-09	5.950E-10	3.916E-10	2.843E-10	2.124E-10	1.667E-10
NW	5.092E-09	4.210E-09	3.679E-09	4.768E-09	2.877E-09	1.437E-09	8.508E-10	5.643E-10	4.069E-10	3.132E-10	2.540E-10
NNW	2.449E-09	2.218E-09	2.219E-09	1.724E-09	1.635E-09	8.856E-10	5.521E-10	4.449E-10	3.226E-10	2.498E-10	2.044E-10
N	2.705E-09	2.365E-09	2.254E-09	1.697E-09	8.863E-10	5.593E-10	3.836E-10	2.777E-10	2.087E-10	1.615E-10	1.279E-10
NNE	5.564E-09	4.269E-09	3.248E-09	2.024E-09	8.997E-10	5.297E-10	3.502E-10	2.485E-10	1.850E-10	1.426E-10	1.128E-10
NE	5.835E-09	4.506E-09	3.474E-09	2.194E-09	9.884E-10	5.857E-10	3.886E-10	2.763E-10	2.059E-10	1.587E-10	1.256E-10
ENE	2.136E-09	1.722E-09	1.441E-09	9.817E-10	4.743E-10	2.900E-10	1.957E-10	1.404E-10	1.051E-10	8.120E-11	6.429E-11
E	1.353E-09	1.183E-09	1.127E-09	8.485E-10	4.432E-10	2.796E-10	1.918E-10	1.388E-10	1.044E-10	8.077E-11	6.395E-11
ESE	1.895E-09	1.664E-09	1.595E-09	1.206E-09	6.316E-10	3.990E-10	2.738E-10	1.983E-10	1.491E-10	1.154E-10	9.134E-11
SE	5.946E-09	5.171E-09	4.891E-09	3.662E-09	1.905E-09	1.200E-09	8.228E-10	5.953E-10	4.475E-10	3.462E-10	2.741E-10
SSE	1.211E-08	1.028E-08	9.367E-09	6.831E-09	3.485E-09	2.179E-09	1.488E-09	1.074E-09	8.068E-10	7.518E-10	6.638E-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
S	3.536E-10	1.886E-10	1.187E-10	6.416E-11	4.042E-11	3.343E-11	2.400E-11	1.806E-11	1.435E-11	1.143E-11	9.334E-12
SSW	1.679E-10	1.002E-10	6.512E-11	3.606E-11	2.588E-11	1.801E-11	1.291E-11	9.694E-12	7.562E-12	6.041E-12	4.931E-12
SW	9.402E-11	5.047E-11	3.158E-11	1.681E-11	1.039E-11	8.803E-12	6.508E-12	4.982E-12	3.874E-12	3.094E-12	2.526E-12
WSW	8.922E-11	5.030E-11	3.213E-11	2.191E-11	1.326E-11	8.890E-12	6.410E-12	4.813E-12	3.743E-12	2.990E-12	2.440E-12
W	7.352E-11	3.282E-11	2.569E-11	1.391E-11	1.088E-11	7.347E-12	5.265E-12	3.953E-12	3.074E-12	2.455E-12	2.004E-12
WNW	1.380E-10	7.078E-11	4.626E-11	2.573E-11	1.795E-11	1.244E-11	9.155E-12	6.875E-12	5.370E-12	4.290E-12	3.501E-12
NW	2.159E-10	1.236E-10	8.598E-11	5.318E-11	3.235E-11	2.168E-11	1.582E-11	1.188E-11	9.360E-12	7.477E-12	6.103E-12
NNW	1.755E-10	1.040E-10	7.362E-11	4.401E-11	2.808E-11	1.875E-11	1.372E-11	1.002E-11	7.775E-12	6.212E-12	5.071E-12
N	1.032E-10	4.909E-11	3.008E-11	1.601E-11	4.309E-11	2.545E-11	1.818E-11	1.366E-11	1.062E-11	8.485E-12	6.927E-12
NNE	9.127E-11	1.321E-10	8.111E-11	4.170E-11	2.539E-11	1.702E-11	1.218E-11	9.135E-12	7.096E-12	5.665E-12	4.622E-12
NE	1.016E-10	1.552E-10	9.590E-11	4.971E-11	3.035E-11	2.032E-11	1.489E-11	1.118E-11	8.721E-12	6.956E-12	5.686E-12
ENE	5.192E-11	6.271E-11	4.637E-11	2.872E-11	1.851E-11	1.237E-11	8.754E-12	5.752E-12	4.474E-12	3.580E-12	2.918E-12
E	5.159E-11	6.196E-11	4.560E-11	2.810E-11	1.804E-11	1.201E-11	8.478E-12	6.247E-12	4.778E-12	3.580E-12	2.918E-12
ESE	7.369E-11	7.654E-11	5.485E-11	3.313E-11	2.119E-11	1.415E-11	1.002E-11	7.413E-12	5.691E-12	4.507E-12	3.652E-12
SE	2.212E-10	1.052E-10	6.448E-11	3.436E-11	2.127E-11	1.478E-11	1.109E-11	1.595E-11	1.238E-11	9.910E-12	8.113E-12
SSE	5.452E-10	3.769E-10	2.295E-10	1.168E-10	7.081E-11	4.745E-11	3.398E-11	2.549E-11	1.981E-11	1.582E-11	1.291E-11

***** RELATIVE DEPOSITION PER UNIT AREA (MM-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
S	7.009E-09	2.839E-09	1.139E-09	6.162E-10	4.203E-10	1.942E-10	6.574E-11	3.152E-11	1.834E-11	1.152E-11
SSW	1.947E-09	1.123E-09	5.133E-10	3.252E-10	2.105E-10	9.963E-11	3.800E-11	1.807E-11	9.801E-12	6.080E-12
SW	9.326E-10	8.982E-10	4.109E-10	1.986E-10	1.172E-10	5.175E-11	1.724E-11	8.309E-12	4.996E-12	3.115E-12
WSW	1.220E-09	1.067E-09	3.938E-10	1.893E-10	1.114E-10	5.087E-11	2.034E-11	9.063E-12	4.862E-12	3.009E-12
W	2.674E-09	1.007E-09	3.339E-10	1.587E-10	9.254E-11	3.870E-11	1.518E-11	7.456E-12	3.993E-12	2.471E-12
WNW	3.087E-09	1.833E-09	6.235E-10	2.876E-10	1.696E-10	7.482E-11	2.683E-11	1.259E-11	6.953E-12	4.318E-12
NW	4.281E-09	2.657E-09	8.924E-10	4.162E-10	2.574E-10	1.274E-10	5.121E-11	2.218E-11	1.204E-11	7.526E-12
NNW	1.999E-09	1.322E-09	5.982E-10	3.298E-10	2.071E-10	1.064E-10	4.351E-11	1.922E-11	1.022E-11	6.252E-12
N	2.031E-09	9.211E-10	3.881E-10	2.104E-10	1.287E-10	5.266E-11	3.117E-11	2.725E-11	1.379E-11	8.540E-12
NNE	2.931E-09	9.852E-10	3.574E-10	1.870E-10	1.137E-10	1.004E-10	4.321E-11	1.732E-11	9.229E-12	5.703E-12
NE	3.134E-09	1.077E-09	3.962E-10	2.080E-10	1.265E-10	1.169E-10	5.137E-11	2.082E-11	1.130E-11	7.012E-12
ENE	1.299E-09	5.051E-10	1.987E-10	1.061E-10	6.472E-11	5.305E-11	2.810E-11	1.256E-11	6.123E-12	3.601E-12
E	1.016E-09	4.606E-10	1.940E-10	1.052E-10	6.436E-11	5.238E-11	2.752E-11	1.221E-11	6.325E-12	3.690E-12
ESE	1.437E-09	6.558E-10	2.770E-10	1.503E-10	9.192E-11	6.627E-11	3.265E-11	1.437E-11	7.502E-12	4.541E-12
SE	4.407E-09	1.982E-09	8.325E-10	4.511E-10	2.759E-10	1.129E-10	3.524E-11	1.504E-11	1.320E-11	9.976E-12
SSE	8.443E-09	3.648E-09	1.507E-09	8.623E-10	6.459E-10	3.488E-10	1.214E-10	4.829E-11	2.575E-11	1.592E-11

ERP ELEVATED STACK RELEASES - JAN-MAR 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE		X/Q			D/Q (PER SQ.METER)
			(MILES)	(METERS)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	
					NO DECAY	2.260 DAY DECAY	8.000 DAY DECAY	
					UNDEPLETED	UNDEPLETED	DEPLETED	
A	SITE BOUNDARY	S	0.80	1287.	1.743E-07	1.741E-07	1.709E-07	7.263E-09
A	SITE BOUNDARY	SSW	0.82	1327.	4.794E-08	4.788E-08	4.743E-08	2.152E-09
A	SITE BOUNDARY	SW	0.98	1569.	8.712E-08	8.695E-08	8.688E-08	1.040E-09
A	SITE BOUNDARY	WSW	0.93	1489.	8.694E-08	8.679E-08	8.688E-08	1.879E-09
A	SITE BOUNDARY	W	0.91	1468.	1.818E-07	1.815E-07	1.794E-07	2.316E-09
A	SITE BOUNDARY	WNW	0.94	1509.	2.012E-07	2.009E-07	1.995E-07	3.601E-09
A	SITE BOUNDARY	NW	0.81	1307.	1.609E-07	1.607E-07	1.593E-07	3.387E-09
A	SITE BOUNDARY	NNW	0.69	1106.	4.540E-08	4.536E-08	4.479E-08	2.193E-09
A	SITE BOUNDARY	N	0.67	1086.	2.865E-08	2.863E-08	2.825E-08	2.256E-09
A	SITE BOUNDARY	NNE	0.60	965.	7.117E-08	7.112E-08	7.010E-08	3.787E-09
A	SITE BOUNDARY	NE	0.62	1005.	6.927E-08	6.922E-08	6.816E-08	3.909E-09
A	SITE BOUNDARY	ENE	0.59	945.	2.212E-08	2.210E-08	2.182E-08	1.595E-09
A	SITE BOUNDARY	E	0.53	845.	1.298E-08	1.297E-08	1.285E-08	1.169E-09
A	SITE BOUNDARY	ESE	0.54	865.	1.696E-08	1.695E-08	1.678E-08	1.638E-09
A	SITE BOUNDARY	SE	0.65	1046.	6.196E-08	6.192E-08	6.105E-08	4.921E-09
A	SITE BOUNDARY	SSE	0.81	1307.	1.354E-07	1.353E-07	1.333E-07	8.715E-09
A	NEAR. RESIDENCE	SW	1.30	2092.	1.240E-07	1.236E-07	1.228E-07	1.549E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	1.531E-07	1.527E-07	1.516E-07	1.508E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.827E-07	1.823E-07	1.797E-07	2.017E-09
A	NEAR. RESIDENCE	WNW	1.60	2575.	2.127E-07	2.121E-07	2.077E-07	1.715E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	2.047E-07	2.044E-07	2.030E-07	5.253E-09
A	NEAR. RESIDENCE	NNW	1.90	3058.	1.103E-07	1.099E-07	1.082E-07	9.900E-10
A	NEAR. RESIDENCE	N	3.00	4828.	3.318E-08	3.298E-08	3.213E-08	2.777E-10
A	NEAR. RESIDENCE	NNE	2.70	4345.	2.930E-08	2.914E-08	2.825E-08	3.033E-10
A	NEAR. RESIDENCE	ENE	1.70	2736.	2.537E-08	2.529E-08	2.487E-08	3.766E-10
A	NEAR. RESIDENCE	E	2.00	3219.	2.450E-08	2.441E-08	2.393E-08	2.796E-10
A	NEAR. RESIDENCE	ESE	2.75	4426.	2.12E-08	2.114E-08	2.059E-08	2.317E-10
A	NEAREST COW	NNW	3.50	5633.	7.878E-08	7.824E-08	7.669E-08	3.226E-10
A	NEAREST GARDEN	SW	1.30	2092.	1.240E-07	1.236E-07	1.228E-07	1.549E-09
A	NEAREST GARDEN	WSW	2.60	4184.	6.128E-08	6.094E-08	5.907E-08	3.498E-10
A	NEAREST GARDEN	WNW	1.60	2575.	2.127E-07	2.121E-07	2.077E-07	1.715E-09
A	NEAREST GARDEN	NW	1.90	3058.	2.487E-07	2.478E-07	2.427E-07	1.624E-09
A	NEAREST GARDEN	NNW	1.90	3058.	1.103E-07	1.099E-07	1.082E-07	9.900E-10
A	NEAREST GARDEN	N	3.00	4828.	3.318E-08	3.298E-08	3.213E-08	2.777E-10
A	NEAREST GARDEN	NNE	2.70	4345.	2.930E-08	2.914E-08	2.825E-08	3.033E-10
A	NEAREST GARDEN	ENE	1.70	2736.	2.537E-08	2.529E-08	2.487E-08	3.766E-10
A	NEAREST GARDEN	E	2.00	3219.	2.450E-08	2.441E-08	2.393E-08	2.796E-10
A	NEAREST GARDEN	ESE	2.40	3863.	2.401E-08	2.394E-08	2.340E-08	2.937E-10
A	NEAREST GARDEN	SE	2.20	3541.	5.724E-08	5.709E-08	5.566E-08	1.024E-09

Atmospheric Diffusion Estimates

Elevated Releases

April-June 1994

ERP ELEVATED STACK RELEASES - APR-JUN 1994
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	1.652E-08	9.760E-08	1.235E-07	1.088E-07	8.981E-08	7.295E-08	5.912E-08	4.849E-08	4.044E-08	4.553E-08	4.860E-08
SSW	2.340E-08	2.552E-08	3.745E-08	4.163E-08	4.213E-08	3.667E-08	3.077E-08	3.359E-08	3.469E-08	3.041E-08	2.697E-08
SW	9.018E-09	2.976E-08	7.221E-08	1.201E-07	1.819E-07	1.225E-07	8.779E-08	6.629E-08	5.212E-08	4.229E-08	3.519E-08
WSW	1.611E-09	2.053E-08	8.054E-08	1.498E-07	2.105E-07	1.277E-07	8.578E-08	6.190E-08	4.704E-08	3.716E-08	3.025E-08
W	3.050E-09	4.553E-08	1.661E-07	2.051E-07	1.836E-07	1.128E-07	7.666E-08	5.586E-08	4.282E-08	3.408E-08	2.793E-08
WNW	1.846E-09	1.267E-08	8.299E-08	1.566E-07	2.170E-07	1.364E-07	9.448E-08	7.395E-08	6.009E-08	4.802E-08	3.951E-08
NW	1.892E-08	8.509E-08	1.629E-07	2.542E-07	3.922E-07	2.354E-07	1.591E-07	1.197E-07	9.461E-08	7.555E-08	6.217E-08
NNW	1.232E-07	2.204E-07	2.405E-07	2.272E-07	2.363E-07	2.141E-07	1.906E-07	1.664E-07	1.469E-07	1.155E-07	9.379E-08
N	1.234E-07	1.817E-07	1.778E-07	1.441E-07	1.137E-07	9.411E-08	7.812E-08	6.433E-08	5.394E-08	4.598E-08	3.978E-08
NNE	5.620E-08	1.454E-07	1.481E-07	1.105E-07	7.696E-08	5.950E-08	4.776E-08	3.932E-08	3.306E-08	2.829E-08	2.459E-08
NE	1.472E-08	5.269E-08	5.590E-08	4.305E-08	3.162E-08	2.525E-08	2.066E-08	1.723E-08	1.462E-08	1.260E-08	1.101E-08
ENE	1.966E-08	1.964E-08	2.125E-08	1.895E-08	1.564E-08	1.245E-08	9.955E-09	8.116E-09	6.759E-09	5.742E-09	4.963E-09
E	6.316E-09	3.950E-08	4.851E-08	3.802E-08	2.620E-08	1.947E-08	1.503E-08	1.198E-08	9.792E-09	8.184E-09	6.970E-09
ESE	4.164E-09	2.364E-08	3.384E-08	3.207E-08	2.688E-08	2.160E-08	1.743E-08	1.432E-08	1.199E-08	1.023E-08	8.863E-09
SE	1.745E-08	4.601E-08	5.521E-08	4.713E-08	3.585E-08	2.759E-08	2.151E-08	1.725E-08	1.416E-08	1.186E-08	1.011E-08
SSE	2.308E-09	2.791E-08	4.462E-08	5.089E-08	4.685E-08	3.905E-08	3.202E-08	2.651E-08	2.231E-08	3.320E-08	4.681E-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	4.292E-08	2.697E-08	1.732E-08	9.779E-09	7.702E-09	4.985E-09	3.865E-09	3.120E-09	2.606E-09	2.222E-09	1.922E-09
SSW	2.483E-08	1.712E-08	1.098E-08	6.194E-09	4.228E-09	3.111E-09	2.410E-09	1.944E-09	1.615E-09	1.372E-09	1.186E-09
SW	3.176E-08	2.173E-08	1.412E-08	8.099E-09	5.652E-09	4.263E-09	3.397E-09	2.750E-09	2.291E-09	1.951E-09	1.691E-09
WSW	2.581E-08	1.430E-08	9.307E-09	5.232E-09	3.448E-09	2.500E-09	1.924E-09	1.544E-09	1.276E-09	1.080E-09	9.299E-10
W	2.342E-08	1.246E-08	8.509E-09	5.117E-09	3.533E-09	2.582E-09	1.998E-09	1.609E-09	1.335E-09	1.133E-09	9.788E-10
WNW	3.371E-08	1.916E-08	1.307E-08	7.949E-09	5.467E-09	4.088E-09	3.231E-09	2.637E-09	2.206E-09	1.884E-09	1.637E-09
NW	5.326E-08	3.104E-08	2.185E-08	1.385E-08	9.471E-09	7.068E-09	5.731E-09	4.725E-09	3.970E-09	3.407E-09	2.973E-09
NNW	7.967E-08	4.459E-08	2.893E-08	1.662E-08	1.128E-08	8.368E-09	6.609E-09	5.416E-09	4.604E-09	3.960E-09	3.445E-09
N	3.494E-08	2.155E-08	1.723E-08	1.313E-08	1.086E-08	8.967E-09	7.061E-09	5.753E-09	4.810E-09	4.110E-09	3.573E-09
NNE	2.657E-08	3.376E-08	2.184E-08	1.252E-08	8.442E-09	6.298E-09	4.940E-09	4.027E-09	3.376E-09	2.891E-09	2.518E-09
NE	1.211E-08	1.739E-08	1.131E-08	6.530E-09	4.448E-09	3.309E-09	2.639E-09	2.173E-09	1.833E-09	1.570E-09	1.368E-09
ENE	5.198E-09	9.287E-09	6.225E-09	3.726E-09	2.595E-09	1.961E-09	1.651E-09	1.408E-09	1.187E-09	1.023E-09	8.948E-10
E	6.925E-09	1.362E-08	9.247E-09	5.636E-09	3.978E-09	3.037E-09	2.438E-09	2.025E-09	1.825E-09	1.648E-09	1.448E-09
ESE	9.110E-09	1.162E-08	7.767E-09	4.622E-09	3.204E-09	2.413E-09	1.914E-09	1.574E-09	1.330E-09	1.146E-09	1.003E-09
SE	8.756E-09	5.141E-09	3.799E-09	2.647E-09	1.974E-09	1.603E-09	1.372E-09	1.211E-09	1.024E-09	8.828E-10	7.734E-10
SSE	4.056E-08	2.391E-08	1.546E-08	8.840E-09	5.980E-09	4.426E-09	3.466E-09	2.821E-09	2.362E-09	2.020E-09	1.758E-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	1.112E-07	8.654E-08	5.856E-08	4.468E-08	4.559E-08	2.622E-08	1.019E-08	4.995E-09	3.137E-09	2.225E-09
SSW	3.666E-08	3.959E-08	3.347E-08	3.275E-08	2.720E-08	1.611E-08	6.384E-09	3.128E-09	1.952E-09	1.375E-09
SW	8.406E-08	1.417E-07	8.844E-08	5.242E-08	3.602E-08	2.058E-08	8.350E-09	4.287E-09	2.760E-09	1.956E-09
WSW	9.798E-08	1.602E-07	8.741E-08	4.752E-08	3.065E-08	1.464E-08	5.345E-09	2.522E-09	1.551E-09	1.083E-09
W	1.566E-07	1.569E-07	7.798E-08	4.321E-08	2.808E-08	1.314E-08	5.167E-09	2.602E-09	1.616E-09	1.136E-09
WNW	1.001E-07	1.677E-07	9.745E-08	5.945E-08	3.988E-08	1.968E-08	7.984E-09	4.113E-09	2.643E-09	1.888E-09
NW	1.862E-07	2.918E-07	1.637E-07	9.451E-08	6.283E-08	3.189E-08	1.368E-08	7.174E-09	4.725E-09	3.413E-09
NNW	2.301E-07	2.244E-07	1.872E-07	1.405E-07	9.499E-08	4.543E-08	1.698E-08	8.441E-09	5.447E-09	3.960E-09
N	1.637E-07	1.117E-07	7.687E-08	5.388E-08	3.983E-08	2.261E-08	1.303E-08	8.709E-09	5.768E-09	4.119E-09
NNE	1.308E-07	7.666E-08	4.752E-08	3.303E-08	2.642E-08	2.687E-08	1.280E-08	6.340E-09	4.040E-09	2.896E-09
NE	4.948E-08	3.133E-08	2.051E-08	1.460E-08	1.189E-08	1.352E-08	6.667E-09	3.345E-09	2.177E-09	1.573E-09
ENE	1.987E-08	1.496E-08	9.885E-09	6.759E-09	5.280E-09	7.017E-09	3.778E-09	2.006E-09	1.393E-09	1.024E-09
E	4.185E-08	2.583E-08	1.499E-08	9.803E-09	7.313E-09	1.019E-08	5.702E-09	3.048E-09	2.067E-09	1.627E-09
ESE	3.079E-08	2.569E-08	1.730E-08	1.198E-08	9.358E-09	9.351E-09	4.691E-09	2.424E-09	1.578E-09	1.147E-09
SE	4.958E-08	3.465E-08	2.140E-08	1.416E-08	1.013E-08	5.348E-09	2.604E-09	1.609E-09	1.186E-09	8.841E-10
SSE	4.502E-08	4.428E-08	3.169E-08	2.766E-08	4.046E-08	2.385E-08	9.039E-09	4.456E-09	2.830E-09	2.024E-09

ERP ELEVATED STACK RELEASES - APR-JUN 1994
2.260 DAY DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										DISTANCE IN MILES											
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.651E-08	9.754E-08	1.233E-07	1.086E-07	8.955E-08	7.264E-08	5.879E-08	4.816E-08	4.012E-08	4.512E-08	4.811E-08											
SSW	2.340E-08	2.550E-08	3.741E-08	4.156E-08	4.201E-08	3.652E-08	3.061E-08	3.337E-08	3.443E-08	3.014E-08	2.669E-08											
SW	9.015E-09	2.974E-08	7.212E-08	1.199E-07	1.813E-07	1.220E-07	8.734E-08	6.587E-08	5.173E-08	4.192E-08	3.485E-08											
WSW	1.611E-09	2.050E-08	8.041E-08	1.495E-07	2.099E-07	1.272E-07	8.539E-08	6.156E-08	4.674E-08	3.689E-08	3.001E-08											
W	3.050E-09	4.551E-08	1.659E-07	2.048E-07	1.832E-07	1.125E-07	7.633E-08	5.557E-08	4.255E-08	3.383E-08	2.770E-08											
WNW	1.846E-09	1.266E-08	8.290E-08	1.563E-07	2.164E-07	1.359E-07	9.400E-08	7.348E-08	5.963E-08	4.760E-08	3.912E-08											
NW	1.891E-08	8.505E-08	1.627E-07	2.538E-07	3.913E-07	2.347E-07	1.585E-07	1.191E-07	9.406E-08	7.504E-08	6.170E-08											
NNW	1.232E-07	2.203E-07	2.403E-07	2.269E-07	2.358E-07	2.135E-07	1.898E-07	1.656E-07	1.460E-07	1.147E-07	9.306E-08											
N	1.233E-07	1.816E-07	1.777E-07	1.440E-07	1.134E-07	9.385E-08	7.783E-08	6.405E-08	5.365E-08	4.570E-08	3.951E-08											
NNE	5.619E-08	1.453E-07	1.480E-07	1.104E-07	7.678E-08	5.930E-08	4.755E-08	3.911E-08	3.285E-08	2.808E-08	2.439E-08											
NE	1.472E-08	5.266E-08	5.585E-08	4.300E-08	3.154E-08	2.516E-08	2.057E-08	1.713E-08	1.452E-08	1.250E-08	1.092E-08											
ENE	1.966E-08	1.963E-08	2.123E-08	1.893E-08	1.561E-08	1.242E-08	9.921E-09	8.082E-09	6.726E-09	5.709E-09	4.931E-09											
E	6.314E-09	3.947E-08	4.846E-08	3.796E-08	2.612E-08	1.938E-08	1.495E-08	1.189E-08	9.710E-09	8.105E-09	6.895E-09											
ESE	4.164E-09	2.362E-08	3.380E-08	3.203E-08	2.683E-08	2.155E-08	1.738E-08	1.426E-08	1.194E-08	1.017E-08	8.813E-09											
SE	1.744E-08	4.599E-08	5.517E-08	4.708E-08	3.579E-08	2.743E-08	2.145E-08	1.719E-08	1.409E-08	1.180E-08	1.005E-08											
SSE	2.308E-09	2.789E-08	4.858E-08	5.082E-08	4.675E-08	3.893E-08	3.189E-08	2.638E-08	2.218E-08	3.299E-08	4.645E-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	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	
S	4.243E-08	2.651E-08	1.693E-08	9.455E-09	6.409E-09	4.716E-09	3.618E-09	2.891E-09	2.389E-09	2.017E-09	1.726E-09												
SSW	2.455E-08	1.682E-08	1.072E-08	5.976E-09	4.030E-09	2.931E-09	2.244E-09	1.789E-09	1.469E-09	1.233E-09	1.054E-09												
SW	3.141E-08	2.133E-08	1.377E-08	7.792E-09	5.359E-09	3.982E-09	3.125E-09	2.495E-09	2.049E-09	1.721E-09	1.471E-09												
WSW	2.558E-08	1.411E-08	9.144E-09	5.097E-09	3.330E-09	2.394E-09	1.828E-09	1.454E-09	1.192E-09	1.000E-09	8.542E-10												
W	2.320E-08	1.228E-08	8.343E-09	4.961E-09	3.386E-09	2.448E-09	1.873E-09	1.493E-09	1.225E-09	1.029E-09	8.788E-10												
WNW	3.333E-08	1.883E-08	1.277E-08	7.679E-09	5.221E-09	3.860E-09	3.015E-09	2.433E-09	2.013E-09	1.700E-09	1.460E-09												
NW	5.280E-08	3.063E-08	2.145E-08	1.345E-08	9.108E-09	6.730E-09	5.398E-09	4.405E-09	3.665E-09	3.113E-09	2.690E-09												
NNW	7.897E-08	4.398E-08	2.839E-08	1.615E-08	1.086E-08	7.976E-09	6.237E-09	5.061E-09	4.258E-09	3.626E-09	3.124E-09												
N	3.468E-08	2.131E-08	1.697E-08	1.283E-08	1.053E-08	8.617E-09	6.732E-09	5.442E-09	4.514E-09	3.827E-09	3.301E-09												
NNE	2.632E-08	3.321E-08	2.137E-08	1.212E-08	8.129E-09	5.964E-09	4.628E-09	3.733E-09	3.096E-09	2.624E-09	2.261E-09												
NE	1.199E-08	1.708E-08	1.105E-08	6.302E-09	4.243E-09	3.120E-09	2.459E-09	2.002E-09	1.669E-09	1.413E-09	1.218E-09												
ENE	5.160E-09	9.176E-09	6.125E-09	3.636E-09	2.512E-09	1.883E-09	1.572E-09	1.330E-09	1.112E-09	9.500E-10	8.247E-10												
E	6.844E-09	1.340E-08	9.048E-09	5.455E-09	3.809E-09	2.878E-09	2.285E-09	1.878E-09	1.674E-09	1.496E-09	1.300E-09												
ESE	9.051E-09	1.150E-08	7.657E-09	4.523E-09	3.113E-09	2.326E-09	1.832E-09	1.495E-09	1.253E-09	1.072E-09	9.317E-10												
SE	8.702E-09	5.092E-09	3.750E-09	2.594E-09	1.920E-09	1.548E-09	1.314E-09	1.152E-09	9.662E-10	8.270E-10	7.192E-10												
SSE	4.022E-08	2.360E-08	1.519E-08	8.614E-09	5.777E-09	4.235E-09	3.291E-09	2.656E-09	2.204E-09	1.870E-09	1.613E-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	1.111E-07	8.627E-08	5.823E-08	4.432E-08	4.512E-08	2.579E-08	9.761E-09	4.728E-09	2.908E-09	2.020E-09
SSW	3.661E-08	3.947E-08	3.329E-08	3.249E-08	2.692E-08	1.583E-08	6.166E-09	2.949E-09	1.797E-09	1.237E-09
SW	8.393E-08	1.413E-07	8.798E-08	5.203E-08	3.567E-08	2.021E-08	8.039E-09	4.006E-09	2.505E-09	1.726E-09
WSW	9.780E-08	1.597E-07	8.702E-08	4.723E-08	3.041E-08	1.445E-08	5.211E-09	2.417E-09	1.461E-09	1.603E-09
W	1.565E-07	1.566E-07	7.766E-08	4.295E-08	2.785E-08	1.296E-08	5.012E-09	2.468E-09	1.500E-09	1.031E-09
WNW	9.991E-08	1.672E-07	9.696E-08	5.901E-08	3.949E-08	1.936E-08	7.719E-09	3.885E-09	2.439E-09	1.704E-09
NW	1.860E-07	2.912E-07	1.631E-07	9.397E-08	6.236E-08	3.147E-08	1.330E-08	6.831E-09	4.407E-09	3.120E-09
NNW	2.299E-07	2.239E-07	1.865E-07	1.397E-07	9.424E-08	4.482E-08	1.652E-08	8.049E-09	5.091E-09	3.627E-09
N	1.636E-07	1.115E-07	7.659E-08	5.359E-08	3.955E-08	2.235E-08	1.273E-08	8.372E-09	5.457E-09	3.836E-09
NNE	1.307E-07	7.648E-08	4.731E-08	3.282E-08	2.620E-08	2.642E-08	1.240E-08	6.007E-09	3.746E-09	2.629E-09
NE	4.943E-08	3.125E-08	2.042E-08	1.450E-08	1.178E-08	1.327E-08	6.441E-09	3.155E-09	2.005E-09	1.417E-09
ENE	1.985E-08	1.493E-08	9.851E-09	6.726E-09	5.246E-09	6.928E-09	3.690E-09	1.926E-09	1.316E-09	9.517E-10
E	4.180E-08	2.576E-08	1.497E-08	9.727E-09	7.235E-09	1.001E-08	5.522E-09	2.889E-09	1.917E-09	1.476E-09
ESE	3.075E-08	2.564E-08	1.775E-08	1.193E-08	9.305E-09	9.248E-09	4.593E-09	2.338E-09	1.499E-09	1.074E-09
SE	4.953E-08	3.458E-08	2.134E-08	1.410E-08	1.007E-08	5.298E-09	2.551E-09	1.554E-09	1.127E-09	8.283E-10
SSE	4.497E-08	4.418E-08	3.756E-08	2.749E-08	4.015E-08	2.356E-08	8.815E-09	4.270E-09	2.665E-09	1.874E-09

ERP ELEVATED STACK RELEASES - APR-JUN 1994
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	1.652E-08	9.671E-08	1.210E-07	1.064E-07	8.765E-08	7.084E-08	5.706E-08	4.651E-08	3.856E-08	4.340E-08	4.634E-08
SSW	2.340E-08	2.529E-08	3.684E-08	4.103E-08	4.139E-08	3.581E-08	2.986E-08	3.249E-08	3.350E-08	2.925E-08	2.586E-08
SW	9.017E-09	2.949E-08	7.125E-08	1.191E-07	1.795E-07	1.200E-07	8.546E-08	6.419E-08	5.023E-08	4.060E-08	3.366E-08
WSW	1.611E-09	2.034E-08	7.959E-08	1.485E-07	2.072E-07	1.245E-07	8.298E-08	5.947E-08	4.492E-08	3.530E-08	2.859E-08
W	3.050E-09	4.521E-08	1.648E-07	2.023E-07	1.798E-07	1.097E-07	7.407E-08	5.371E-08	4.099E-08	3.250E-08	2.654E-08
WNW	1.846E-09	1.259E-08	8.270E-08	1.552E-07	2.138E-07	1.335E-07	9.198E-08	7.178E-08	5.818E-08	4.628E-08	3.789E-08
NW	1.892E-08	8.432E-08	1.605E-07	2.511E-07	3.865E-07	2.303E-07	1.549E-07	1.161E-07	9.153E-08	7.278E-08	5.960E-08
NNW	1.232E-07	2.184E-07	2.357E-07	2.229E-07	2.320E-07	2.095E-07	1.861E-07	1.622E-07	1.430E-07	1.119E-07	9.043E-08
N	1.234E-07	1.891E-07	1.742E-07	1.410E-07	1.110E-07	9.156E-08	7.568E-08	6.204E-08	5.179E-08	4.398E-08	3.791E-08
NNE	5.620E-08	1.441E-07	1.449E-07	1.076E-07	7.468E-08	5.759E-08	4.607E-08	3.780E-08	3.167E-08	2.702E-08	2.342E-08
NE	1.472E-08	5.221E-08	5.468E-08	4.194E-08	3.074E-08	2.449E-08	1.998E-08	1.661E-08	1.404E-08	1.207E-08	1.052E-08
ENE	1.966E-08	1.946E-08	2.084E-08	1.857E-08	1.529E-08	1.210E-08	9.614E-09	7.790E-09	6.451E-09	5.452E-09	4.690E-09
E	6.315E-09	3.914E-08	4.743E-08	3.698E-08	2.536E-08	1.875E-08	1.440E-08	1.140E-08	9.262E-09	7.696E-09	6.519E-09
ESE	4.164E-09	2.343E-08	3.321E-08	3.147E-08	2.629E-08	2.103E-08	1.687E-08	1.379E-08	1.149E-08	9.759E-09	8.426E-09
SE	1.745E-08	4.560E-08	5.411E-08	4.610E-08	3.495E-08	2.667E-08	2.074E-08	1.653E-08	1.349E-08	1.124E-08	9.533E-09
SSE	2.308E-09	2.766E-08	4.778E-08	5.003E-08	4.593E-08	3.806E-08	3.102E-08	2.552E-08	2.136E-08	3.202E-08	4.546E-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	4.078E-08	2.506E-08	1.558E-08	8.253E-09	5.280E-09	3.710E-09	2.761E-09	2.147E-09	1.733E-09	1.434E-09	1.206E-09
SSW	2.377E-08	1.607E-08	9.967E-09	5.257E-09	3.353E-09	2.364E-09	1.765E-09	1.377E-09	1.108E-09	9.144E-10	7.691E-10
SW	3.033E-08	2.042E-08	1.283E-08	6.871E-09	4.441E-09	3.141E-09	2.400E-09	1.874E-09	1.511E-09	1.248E-09	1.050E-09
WSW	2.430E-08	1.307E-08	8.239E-09	4.378E-09	2.753E-09	1.918E-09	1.425E-09	1.107E-09	8.886E-10	7.312E-10	6.137E-10
W	2.218E-08	1.163E-08	7.818E-09	4.423E-09	2.870E-09	2.016E-09	1.505E-09	1.174E-09	9.458E-10	7.808E-10	6.571E-10
WNW	3.215E-08	1.771E-08	1.168E-08	6.611E-09	4.186E-09	2.944E-09	2.229E-09	1.756E-09	1.421E-09	1.177E-09	9.933E-10
NW	5.081E-08	2.875E-08	1.958E-08	1.159E-08	7.425E-09	5.242E-09	4.074E-09	3.244E-09	2.640E-09	2.200E-09	1.867E-09
NNW	7.639E-08	4.143E-08	2.595E-08	1.387E-08	8.679E-09	6.007E-09	4.471E-09	3.492E-09	2.859E-09	2.381E-09	2.010E-09
N	3.318E-08	2.019E-08	1.607E-08	1.222E-08	9.901E-09	7.806E-09	5.960E-09	4.722E-09	3.848E-09	3.210E-09	2.729E-09
NNE	2.538E-08	3.231E-08	2.019E-08	1.086E-08	6.920E-09	4.868E-09	3.645E-09	2.850E-09	2.300E-09	1.901E-09	1.601E-09
NE	1.160E-08	1.671E-08	1.049E-08	5.669E-09	3.605E-09	2.531E-09	1.928E-09	1.534E-09	1.253E-09	1.043E-09	8.838E-10
ENE	4.919E-09	8.951E-09	5.802E-09	3.237E-09	2.078E-09	1.466E-09	1.161E-09	9.446E-10	7.715E-10	6.447E-10	5.485E-10
E	6.471E-09	1.308E-08	8.593E-09	4.882E-09	3.174E-09	2.260E-09	1.706E-09	1.341E-09	1.147E-09	9.899E-10	8.396E-10
ESE	8.667E-09	1.117E-08	7.225E-09	4.018E-09	2.576E-09	1.815E-09	1.359E-09	1.060E-09	8.535E-10	7.034E-10	5.906E-10
SE	8.217E-09	4.733E-09	3.460E-09	2.386E-09	1.765E-09	1.428E-09	1.221E-09	1.074E-09	8.887E-10	7.515E-10	6.461E-10
SSE	3.919E-08	2.240E-08	1.398E-08	7.499E-09	4.767E-09	3.346E-09	2.501E-09	1.951E-09	1.572E-09	1.297E-09	1.091E-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	1.091E-07	8.435E-08	5.651E-08	4.268E-08	4.341E-08	2.434E-08	8.559E-09	3.749E-09	2.165E-09	1.438E-09
SSW	3.613E-08	3.883E-08	3.250E-08	3.159E-08	2.609E-08	1.507E-08	5.457E-09	2.388E-09	1.385E-09	9.181E-10
SW	8.324E-08	1.396E-07	8.615E-08	5.055E-08	3.448E-08	1.925E-08	7.115E-09	3.192E-09	1.886E-09	1.252E-09
WSW	9.706E-08	1.574E-07	8.465E-08	4.541E-08	2.899E-08	1.342E-08	4.514E-09	1.944E-09	1.115E-09	7.343E-10
W	1.549E-07	1.536E-07	7.542E-08	4.139E-08	2.669E-08	1.228E-08	4.487E-09	2.039E-09	1.182E-09	7.839E-10
WNW	9.934E-08	1.651E-07	9.497E-08	5.753E-08	3.825E-08	1.824E-08	6.659E-09	2.989E-09	1.764E-09	1.181E-09
NW	1.838E-07	2.870E-07	1.595E-07	9.140E-08	6.025E-08	2.957E-08	1.151E-08	5.357E-09	3.251E-09	2.207E-09
NNW	2.262E-07	2.200E-07	1.828E-07	1.367E-07	9.160E-08	4.232E-08	1.425E-08	6.105E-09	3.530E-09	2.385E-09
N	1.607E-07	1.090E-07	7.446E-08	5.174E-08	3.796E-08	2.125E-08	1.204E-08	7.626E-09	4.743E-09	3.221E-09
NNE	1.281E-07	7.439E-08	4.583E-08	3.165E-08	2.521E-08	2.538E-08	1.118E-08	4.926E-09	2.868E-09	1.908E-09
NE	4.847E-08	3.045E-08	1.983E-08	1.402E-08	1.138E-08	1.281E-08	5.824E-09	2.576E-09	1.540E-09	1.046E-09
ENE	1.952E-08	1.460E-08	9.547E-09	6.453E-09	5.001E-09	6.655E-09	3.292E-09	1.507E-09	9.405E-10	6.467E-10
E	4.094E-08	2.501E-08	1.436E-08	9.275E-09	6.850E-09	9.616E-09	4.947E-09	2.282E-09	1.371E-09	9.809E-10
ESE	3.026E-08	2.510E-08	1.675E-08	1.149E-08	8.910E-09	8.860E-09	4.090E-09	1.836E-09	1.067E-09	7.061E-10
SE	4.866E-08	3.375E-08	2.064E-08	1.350E-08	9.551E-09	4.941E-09	2.348E-09	1.435E-09	1.046E-09	7.531E-10
SSE	4.431E-08	4.335E-08	3.070E-08	2.661E-08	3.916E-08	2.239E-08	7.724E-09	3.387E-09	1.964E-09	1.302E-09

ERP ELEVATED STACK RELEASES - APR-JUN 1994
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	8.512E-09	6.742E-09	5.461E-09	3.617E-09	1.704E-09	1.030E-09	6.913E-10	4.946E-10	3.696E-10	2.976E-10	2.658E-10	
SSW	2.233E-09	1.960E-09	1.878E-09	1.419E-09	7.428E-10	4.692E-10	3.220E-10	2.331E-10	2.145E-10	1.623E-10	1.271E-10	
SW	2.511E-09	2.195E-09	2.093E-09	1.575E-09	1.418E-09	7.687E-10	4.759E-10	3.231E-10	2.336E-10	1.767E-10	1.384E-10	
WSW	1.971E-09	1.816E-09	1.859E-09	2.736E-09	1.423E-09	7.687E-10	4.743E-10	3.212E-10	2.318E-10	1.752E-10	1.371E-10	
W	8.774E-10	4.426E-09	3.909E-09	2.448E-09	1.233E-09	6.511E-10	3.966E-10	2.663E-10	1.913E-10	1.445E-10	1.135E-10	
WNW	8.676E-10	9.160E-10	2.721E-09	2.095E-09	1.244E-09	6.323E-10	3.790E-10	2.561E-10	1.962E-10	1.541E-10	1.282E-10	
NW	7.941E-09	6.179E-09	4.836E-09	5.136E-09	2.875E-09	1.433E-09	8.515E-10	5.697E-10	4.162E-10	3.259E-10	2.696E-10	
NNW	2.097E-08	1.570E-08	1.134E-08	6.683E-09	3.970E-09	2.102E-09	1.293E-09	9.887E-10	7.202E-10	5.611E-10	4.603E-10	
N	2.022E-08	1.552E-08	1.181E-08	7.358E-09	3.270E-09	1.926E-09	1.273E-09	9.035E-10	6.724E-10	5.182E-10	4.102E-10	
NNE	1.307E-08	9.784E-09	7.061E-09	4.155E-09	1.736E-09	9.903E-10	6.430E-10	4.518E-10	3.345E-10	2.572E-10	2.036E-10	
NE	4.900E-09	3.663E-09	2.635E-09	1.544E-09	6.422E-10	3.656E-10	2.370E-10	1.664E-10	1.232E-10	9.469E-11	7.494E-11	
ENE	3.000E-09	2.273E-09	1.684E-09	1.021E-09	4.402E-10	2.556E-10	1.676E-10	1.184E-10	8.793E-11	6.769E-11	5.358E-11	
E	3.816E-09	2.879E-09	2.114E-09	1.269E-09	5.418E-10	3.127E-10	2.044E-10	1.441E-10	1.069E-10	8.229E-11	6.514E-11	
ESE	2.223E-09	1.901E-09	1.753E-09	1.289E-09	6.621E-10	4.151E-10	2.838E-10	2.050E-10	1.540E-10	1.191E-10	9.432E-11	
SE	5.207E-09	4.074E-09	3.224E-09	2.089E-09	9.642E-10	5.779E-10	3.858E-10	2.753E-10	2.055E-10	1.585E-10	1.255E-10	
SSE	3.058E-09	2.616E-09	2.415E-09	1.778E-09	9.133E-10	5.726E-10	3.915E-10	2.829E-10	2.125E-10	1.973E-10	1.978E-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	2.139E-10	1.486E-10	1.016E-10	5.927E-11	3.800E-11	2.586E-11	1.857E-11	1.397E-11	1.102E-11	8.791E-12	7.180E-12	
SSW	1.032E-10	7.796E-11	5.423E-11	3.198E-11	2.013E-11	1.389E-11	9.954E-12	7.477E-12	5.891E-12	4.706E-12	3.841E-12	
SW	1.123E-10	9.235E-11	6.545E-11	3.919E-11	2.505E-11	1.646E-11	1.178E-11	8.945E-12	6.955E-12	5.556E-12	4.535E-12	
WSW	1.140E-10	7.739E-11	5.286E-11	3.377E-11	2.046E-11	1.373E-11	9.920E-12	7.449E-12	5.792E-12	4.626E-12	3.776E-12	
W	9.208E-11	4.339E-11	4.536E-11	2.718E-11	1.791E-11	1.201E-11	8.602E-12	6.459E-12	5.022E-12	4.012E-12	3.275E-12	
WNW	1.120E-10	7.018E-11	5.098E-11	3.107E-11	1.989E-11	1.271E-11	9.009E-12	6.766E-12	5.286E-12	4.222E-12	3.446E-12	
NW	2.336E-10	1.424E-10	1.023E-10	6.342E-11	3.872E-11	2.590E-11	1.840E-11	1.382E-11	1.074E-11	8.582E-12	7.005E-12	
NNW	3.947E-10	2.321E-10	1.641E-10	9.886E-11	6.420E-11	4.375E-11	2.990E-11	2.221E-11	1.720E-11	1.374E-11	1.122E-11	
N	3.318E-10	1.589E-10	9.803E-11	5.308E-11	8.422E-11	5.479E-11	3.926E-11	2.949E-11	2.293E-11	1.832E-11	1.495E-11	
NNE	1.649E-10	2.032E-10	1.263E-10	6.590E-11	4.035E-11	2.705E-11	1.935E-11	1.450E-11	1.125E-11	8.981E-12	7.324E-12	
NE	6.070E-11	8.849E-11	5.562E-11	2.935E-11	1.800E-11	1.203E-11	8.487E-12	6.307E-12	4.931E-12	3.939E-12	3.215E-12	
ENE	4.336E-11	4.081E-11	2.907E-11	1.758E-11	1.138E-11	7.716E-12	5.548E-12	3.803E-12	2.958E-12	2.365E-12	1.932E-12	
E	5.272E-11	5.510E-11	4.008E-11	2.464E-11	1.598E-11	1.080E-11	7.734E-12	5.784E-12	4.472E-12	3.156E-12	2.580E-12	
ESE	7.612E-11	6.943E-11	4.846E-11	2.867E-11	1.829E-11	1.226E-11	8.728E-12	6.496E-12	5.012E-12	3.989E-12	3.247E-12	
SE	1.014E-10	4.848E-11	2.986E-11	1.612E-11	1.016E-11	7.168E-12	5.451E-12	7.047E-12	5.533E-12	4.483E-12	3.711E-12	
SSE	1.694E-10	1.343E-10	8.335E-11	4.336E-11	2.649E-11	1.774E-11	1.268E-11	9.488E-12	7.357E-12	5.864E-12	4.778E-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	4.926E-09	1.830E-09	7.030E-10	3.779E-10	2.560E-10	1.422E-10	5.922E-11	2.618E-11	1.416E-11	8.855E-12
SSW	1.692E-09	7.714E-10	3.257E-10	1.999E-10	1.287E-10	7.303E-11	3.166E-11	1.398E-11	7.581E-12	4.736E-12
SW	1.886E-09	1.164E-09	4.929E-10	2.375E-10	1.401E-10	8.483E-11	3.874E-11	1.689E-11	8.997E-12	5.592E-12
WSW	2.240E-09	1.424E-09	4.915E-10	2.357E-10	1.398E-10	7.462E-11	3.209E-11	1.400E-11	7.524E-12	4.657E-12
W	3.374E-09	1.244E-09	4.123E-10	1.949E-10	1.147E-10	5.509E-11	2.710E-11	1.222E-11	6.524E-12	4.038E-12
WNW	2.042E-09	1.161E-09	3.974E-10	1.973E-10	1.299E-10	7.094E-11	3.052E-11	1.315E-11	6.843E-12	4.250E-12
NW	5.268E-09	2.736E-09	8.938E-10	4.256E-10	2.730E-10	1.448E-10	6.108E-11	2.632E-11	1.396E-11	8.638E-12
NNW	1.024E-08	3.743E-09	1.387E-09	7.363E-10	4.659E-10	2.380E-10	9.795E-11	4.366E-11	2.250E-11	1.383E-11
N	1.065E-08	3.581E-09	1.299E-09	6.797E-10	4.131E-10	1.702E-10	7.691E-11	5.643E-11	2.978E-11	1.844E-11
NNE	6.375E-09	1.942E-09	6.592E-10	3.386E-10	2.051E-10	1.605E-10	6.797E-11	2.752E-11	1.465E-11	9.041E-12
NE	2.378E-09	7.197E-10	2.431E-10	1.247E-10	7.552E-11	6.771E-11	3.014E-11	1.220E-11	6.406E-12	3.965E-12
ENE	1.520E-09	4.873E-10	1.714E-10	8.893E-11	5.398E-11	3.616E-11	1.738E-11	7.827E-12	3.980E-12	2.380E-12
E	1.909E-09	6.015E-10	2.092E-10	1.082E-10	6.562E-11	4.790E-11	2.422E-11	1.096E-11	5.841E-12	3.333E-12
ESE	1.580E-09	6.917E-10	2.873E-10	1.553E-10	9.493E-11	6.159E-11	2.845E-11	1.245E-11	6.569E-12	4.017E-12
SE	2.908E-09	1.042E-09	3.928E-10	2.075E-10	1.264E-10	5.197E-11	1.652E-11	7.278E-12	6.014E-12	4.508E-12
SSE	2.176E-09	9.540E-10	3.964E-10	2.268E-10	1.871E-10	1.195E-10	4.475E-11	1.805E-11	9.587E-12	5.904E-12

ERP ELEVATED STACK RELEASES - APR-JUN 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE		X/Q		X/Q		X/Q		D/Q
			(MILES)	(METERS)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	
					NO DECAY	NO DECAY	2,260 DAY DECAY	2,260 DAY DECAY	8,000 DAY DECAY	8,000 DAY DECAY	
					UNDEPLETED	UNDEPLETED	UNDEPLETED	UNDEPLETED	DEPLETED	DEPLETED	
A	SITE BOUNDARY	S	0.80	1287.	1.204E-07	1.204E-07	1.202E-07	1.202E-07	1.178E-07	1.178E-07	5.034E-09
A	SITE BOUNDARY	SSW	0.82	1327.	3.888E-08	3.888E-08	3.883E-08	3.883E-08	3.825E-08	3.825E-08	1.746E-09
A	SITE BOUNDARY	SW	0.98	1569.	1.153E-07	1.153E-07	1.151E-07	1.151E-07	1.143E-07	1.143E-07	1.638E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.301E-07	1.301E-07	1.298E-07	1.298E-07	1.290E-07	1.290E-07	2.464E-09
A	SITE BOUNDARY	W	0.91	1468.	1.983E-07	1.983E-07	1.980E-07	1.980E-07	1.959E-07	1.959E-07	2.866E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.410E-07	1.410E-07	1.408E-07	1.408E-07	1.400E-07	1.400E-07	2.343E-09
A	SITE BOUNDARY	NW	0.81	1307.	1.836E-07	1.836E-07	1.834E-07	1.834E-07	1.811E-07	1.811E-07	4.323E-09
A	SITE BOUNDARY	NNW	0.69	1106.	2.340E-07	2.340E-07	2.338E-07	2.338E-07	2.296E-07	2.296E-07	1.222E-08
A	SITE BOUNDARY	N	0.67	1086.	1.782E-07	1.782E-07	1.781E-07	1.781E-07	1.750E-07	1.750E-07	1.269E-08
A	SITE BOUNDARY	NNE	0.60	965.	1.506E-07	1.506E-07	1.505E-07	1.505E-07	1.483E-07	1.483E-07	8.523E-09
A	SITE BOUNDARY	NE	0.62	1005.	5.588E-08	5.588E-08	5.585E-08	5.585E-08	5.496E-08	5.496E-08	3.082E-09
A	SITE BOUNDARY	ENE	0.59	945.	1.997E-08	1.997E-08	1.996E-08	1.996E-08	1.969E-08	1.969E-08	2.029E-09
A	SITE BOUNDARY	E	0.53	845.	4.139E-08	4.139E-08	4.137E-08	4.137E-08	4.095E-08	4.095E-08	2.783E-09
A	SITE BOUNDARY	ESE	0.54	865.	2.550E-08	2.550E-08	2.549E-08	2.549E-08	2.522E-08	2.522E-08	1.862E-09
A	SITE BOUNDARY	SE	0.65	1046.	5.240E-08	5.240E-08	5.236E-08	5.236E-08	5.151E-08	5.151E-08	3.494E-09
A	SITE BOUNDARY	SSE	0.81	1307.	4.973E-08	4.973E-08	4.967E-08	4.967E-08	4.885E-08	4.885E-08	2.254E-09
A	NEAR. RESIDENCE	SW	1.30	2092.	1.670E-07	1.670E-07	1.666E-07	1.666E-07	1.653E-07	1.653E-07	1.896E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	2.028E-07	2.028E-07	2.023E-07	2.023E-07	2.003E-07	2.003E-07	1.904E-09
A	NEAR. RESIDENCE	W	1.00	1609.	2.051E-07	2.051E-07	2.048E-07	2.048E-07	2.023E-07	2.023E-07	2.448E-09
A	NEAR. RESIDENCE	WNW	1.60	2575.	1.959E-07	1.959E-07	1.953E-07	1.953E-07	1.927E-07	1.927E-07	1.068E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	2.156E-07	2.156E-07	2.154E-07	2.154E-07	2.130E-07	2.130E-07	5.848E-09
A	NEAR. RESIDENCE	NNW	1.90	3058.	2.189E-07	2.189E-07	2.183E-07	2.183E-07	2.144E-07	2.144E-07	2.356E-09
A	NEAR. RESIDENCE	N	3.00	4828.	6.433E-08	6.433E-08	6.405E-08	6.405E-08	6.204E-08	6.204E-08	9.035E-10
A	NEAR. RESIDENCE	NNE	2.70	4345.	4.407E-08	4.407E-08	4.386E-08	4.386E-08	4.245E-08	4.245E-08	5.542E-10
A	NEAR. RESIDENCE	ENE	1.70	2736.	1.430E-08	1.430E-08	1.427E-08	1.427E-08	1.395E-08	1.395E-08	3.377E-10
A	NEAR. RESIDENCE	E	2.00	3219.	1.947E-08	1.947E-08	1.938E-08	1.938E-08	1.875E-08	1.875E-08	3.127E-10
A	NEAR. RESIDENCE	ESE	2.75	4426.	1.576E-08	1.576E-08	1.570E-08	1.570E-08	1.521E-08	1.521E-08	2.398E-10
A	NEAREST COW	NNW	3.50	5633.	1.468E-07	1.468E-07	1.460E-07	1.460E-07	1.430E-07	1.430E-07	7.201E-10
A	NEAREST GARDEN	SW	1.30	2092.	1.670E-07	1.670E-07	1.666E-07	1.666E-07	1.653E-07	1.653E-07	1.896E-09
A	NEAREST GARDEN	WSW	2.60	4184.	7.998E-08	7.998E-08	7.950E-08	7.950E-08	7.726E-08	7.726E-08	4.361E-10
A	NEAREST GARDEN	WNW	1.60	2575.	1.959E-07	1.959E-07	1.953E-07	1.953E-07	1.927E-07	1.927E-07	1.068E-09
A	NEAREST GARDEN	NW	1.90	3058.	2.578E-07	2.578E-07	2.570E-07	2.570E-07	2.525E-07	2.525E-07	1.620E-09
A	NEAREST GARDEN	NNW	1.90	3058.	2.189E-07	2.189E-07	2.183E-07	2.183E-07	2.144E-07	2.144E-07	2.356E-09
A	NEAREST GARDEN	N	3.00	4828.	6.433E-08	6.433E-08	6.405E-08	6.405E-08	6.204E-08	6.204E-08	9.035E-10
A	NEAREST GARDEN	NNE	2.70	4345.	4.407E-08	4.407E-08	4.386E-08	4.386E-08	4.245E-08	4.245E-08	5.542E-10
A	NEAREST GARDEN	ENE	1.70	2736.	1.430E-08	1.430E-08	1.427E-08	1.427E-08	1.395E-08	1.395E-08	3.377E-10
A	NEAREST GARDEN	E	2.00	3219.	1.947E-08	1.947E-08	1.938E-08	1.938E-08	1.875E-08	1.875E-08	3.127E-10
A	NEAREST GARDEN	ESE	2.40	3863.	1.817E-08	1.817E-08	1.812E-08	1.812E-08	1.761E-08	1.761E-08	3.046E-10
A	NEAREST GARDEN	SE	2.20	3541.	2.485E-08	2.485E-08	2.479E-08	2.479E-08	2.405E-08	2.405E-08	4.867E-10

Atmospheric Diffusion Estimates

Elevated Releases

January-June 1994

ERP ELEVATED STACK RELEASES - JAN-JUN 1994
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES										
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.992E-08	1.112E-07	1.528E-07	1.400E-07	1.149E-07	9.119E-08	7.249E-08	5.859E-08	4.829E-08	5.239E-08	5.375E-08
SSW	1.255E-08	2.134E-08	4.074E-08	5.058E-08	5.317E-08	4.604E-08	3.827E-08	4.073E-08	4.063E-08	3.496E-08	3.047E-08
SW	4.545E-09	1.724E-08	5.720E-08	1.077E-07	1.577E-07	1.047E-07	7.443E-08	5.585E-08	4.371E-08	3.533E-08	2.931E-08
WSW	8.091E-10	1.072E-08	6.042E-08	1.300E-07	1.884E-07	1.146E-07	7.710E-08	5.571E-08	4.237E-08	3.350E-08	2.729E-08
W	1.675E-09	4.437E-08	1.663E-07	1.976E-07	1.660E-07	1.006E-07	6.770E-08	4.901E-08	3.737E-08	2.963E-08	2.420E-08
WNW	1.019E-09	1.519E-08	1.085E-07	1.909E-07	2.325E-07	1.423E-07	9.687E-08	7.426E-08	5.937E-08	4.713E-08	3.857E-08
NW	1.550E-08	6.487E-08	1.496E-07	2.588E-07	3.951E-07	2.355E-07	1.581E-07	1.178E-07	9.225E-08	7.329E-08	6.004E-08
NNW	6.327E-08	1.222E-07	1.500E-07	1.588E-07	1.783E-07	1.636E-07	1.465E-07	1.288E-07	1.146E-07	9.021E-08	7.336E-08
N	6.760E-08	1.018E-07	1.669E-07	9.446E-08	8.194E-08	7.048E-08	5.954E-08	4.949E-08	4.174E-08	3.573E-08	3.102E-08
NNE	3.679E-08	1.061E-07	1.140E-07	8.832E-08	6.391E-08	5.006E-08	4.039E-08	3.333E-08	2.806E-08	2.403E-08	2.090E-08
NE	1.864E-08	6.085E-08	6.515E-08	5.392E-08	4.365E-08	3.601E-08	2.977E-08	2.489E-08	2.112E-08	1.819E-08	1.588E-08
ENE	1.794E-08	2.074E-08	2.420E-08	2.372E-08	2.172E-08	1.814E-08	1.490E-08	1.237E-08	1.044E-08	8.952E-09	7.798E-09
E	3.259E-09	2.585E-08	3.693E-08	3.353E-08	2.772E-08	2.246E-08	1.823E-08	1.500E-08	1.256E-08	1.070E-08	9.251E-09
ESE	3.116E-09	1.975E-08	3.128E-08	3.248E-08	2.998E-08	2.515E-08	2.076E-08	1.727E-08	1.458E-08	1.249E-08	1.086E-08
SE	1.035E-08	4.405E-08	6.702E-08	6.669E-08	5.768E-08	4.619E-08	3.680E-08	2.977E-08	2.456E-08	2.063E-08	1.762E-08
SSE	3.362E-08	6.886E-08	9.397E-08	9.684E-08	8.867E-08	7.286E-08	5.892E-08	4.818E-08	4.010E-08	5.436E-08	6.616E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES									
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	50.000
S	4.683E-08	2.783E-08	1.770E-08	9.867E-09	6.664E-09	4.905E-09	3.787E-09	3.046E-09	2.532E-09	2.150E-09
SSW	2.750E-08	1.828E-08	1.169E-08	6.563E-09	4.501E-09	3.322E-09	2.569E-09	2.069E-09	1.717E-09	1.457E-09
SW	2.628E-08	1.745E-08	1.127E-08	6.406E-09	4.418E-09	3.303E-09	2.611E-09	2.107E-09	1.751E-09	1.488E-09
WSW	2.332E-08	1.309E-08	8.607E-09	4.897E-09	3.228E-09	2.341E-09	1.803E-09	1.447E-09	1.196E-09	1.012E-09
W	2.023E-08	1.066E-08	7.247E-09	4.364E-09	3.030E-09	2.212E-09	1.709E-09	1.375E-09	1.140E-09	9.668E-10
WNW	3.269E-08	1.818E-08	1.226E-08	7.355E-09	5.025E-09	3.740E-09	2.945E-09	2.398E-09	2.002E-09	1.706E-09
NW	5.110E-08	2.901E-08	2.004E-08	1.239E-08	8.414E-09	6.246E-09	5.016E-09	4.113E-09	3.447E-09	2.951E-09
NNW	6.243E-08	3.518E-08	2.284E-08	1.314E-08	8.917E-09	6.616E-09	5.228E-09	4.287E-09	3.649E-09	3.141E-09
N	2.730E-08	1.695E-08	1.367E-08	1.054E-08	8.759E-09	7.241E-09	5.701E-09	4.644E-09	3.882E-09	3.317E-09
NNE	2.266E-08	2.901E-08	1.875E-08	1.073E-08	7.270E-09	5.387E-09	4.223E-09	3.440E-09	2.882E-09	2.467E-09
NE	1.732E-08	2.378E-08	1.545E-08	8.892E-09	6.043E-09	4.488E-09	3.573E-09	2.939E-09	2.477E-09	2.121E-09
ENE	8.311E-09	1.352E-08	8.986E-09	5.320E-09	3.676E-09	2.762E-09	2.289E-09	1.932E-09	1.625E-09	1.396E-09
E	9.553E-09	1.526E-08	1.021E-08	6.103E-09	4.249E-09	3.211E-09	2.556E-09	2.109E-09	1.868E-09	1.666E-09
ESE	1.114E-08	1.247E-08	8.229E-09	4.815E-09	3.300E-09	2.463E-09	1.940E-09	1.587E-09	1.334E-09	1.144E-09
SE	1.527E-08	8.949E-09	6.569E-09	4.403E-09	3.163E-09	2.468E-09	2.031E-09	1.731E-09	1.449E-09	1.240E-09
SSE	5.623E-08	3.100E-08	1.979E-08	1.112E-08	7.425E-09	5.441E-09	4.226E-09	3.416E-09	2.843E-09	2.420E-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	1.379E-07	1.100E-07	7.192E-08	5.279E-08	5.078E-08	2.755E-08	1.018E-08	4.927E-09	3.062E-09	2.154E-09
SSW	4.080E-08	4.943E-08	4.133E-08	3.850E-08	3.070E-08	1.740E-08	6.785E-09	3.335E-09	2.078E-09	1.461E-09
SW	7.076E-08	1.230E-07	7.507E-08	4.399E-08	2.997E-08	1.666E-08	6.603E-09	3.324E-09	2.115E-09	1.491E-09
WSW	8.029E-08	1.426E-07	7.854E-08	4.280E-08	2.766E-08	1.337E-08	4.980E-09	2.362E-09	1.453E-09	1.015E-09
W	1.531E-07	1.440E-07	6.899E-08	3.775E-08	2.434E-08	1.127E-08	4.412E-09	2.229E-09	1.381E-09	9.691E-10
WNW	1.244E-07	1.832E-07	9.995E-08	5.896E-08	3.893E-08	1.877E-08	7.410E-09	3.765E-09	2.404E-09	1.710E-09
NW	1.793E-07	2.939E-07	1.626E-07	9.232E-08	6.065E-08	2.993E-08	1.232E-08	6.332E-09	4.117E-09	2.956E-09
NNW	1.477E-07	1.674E-07	1.440E-07	1.094E-07	7.430E-08	3.575E-08	1.342E-08	6.674E-09	4.313E-09	3.140E-09
N	1.002E-07	7.963E-08	5.844E-08	4.167E-08	3.104E-08	1.779E-08	1.044E-08	7.030E-09	4.656E-09	3.323E-09
NNE	1.008E-07	6.318E-08	4.014E-08	2.803E-08	2.248E-08	2.304E-08	1.097E-08	5.423E-09	3.451E-09	2.472E-09
NE	5.920E-08	4.253E-08	2.948E-08	2.108E-08	1.710E-08	1.864E-08	9.082E-09	4.537E-09	2.944E-09	2.125E-09
ENE	2.322E-08	2.057E-08	1.475E-08	1.042E-08	8.330E-09	1.035E-08	5.404E-09	2.816E-09	1.917E-09	1.398E-09
E	3.295E-08	2.668E-08	1.807E-08	1.255E-08	9.791E-09	1.175E-08	6.192E-09	3.226E-09	2.145E-09	1.649E-09
ESE	2.925E-08	2.839E-08	2.053E-08	1.455E-08	1.144E-08	1.029E-08	4.900E-09	2.477E-09	1.591E-09	1.146E-09
SE	6.177E-08	5.458E-08	3.649E-08	2.455E-08	1.764E-08	9.296E-09	4.333E-09	2.479E-09	1.709E-09	1.242E-09
SSE	8.966E-08	8.346E-08	5.834E-08	4.784E-08	5.898E-08	3.162E-08	1.140E-08	5.484E-09	3.429E-09	2.425E-09

ERP ELEVATED STACK RELEASES - JAN-JUN 1994
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	1.991E-08	1.112E-07	1.526E-07	1.398E-07	1.147E-07	9.087E-08	7.215E-08	5.826E-08	4.797E-08	5.198E-08	5.327E-08
SSW	1.254E-08	2.133E-08	4.069E-08	5.050E-08	5.303E-08	4.588E-08	3.810E-08	4.051E-08	4.037E-08	3.470E-08	3.021E-08
SW	4.544E-09	1.722E-08	5.712E-08	1.075E-07	1.572E-07	1.043E-07	7.402E-08	5.548E-08	4.336E-08	3.501E-08	2.901E-08
WSW	8.090E-10	1.070E-08	6.033E-08	1.297E-07	1.878E-07	1.141E-07	7.672E-08	5.537E-08	4.208E-08	3.324E-08	2.705E-08
W	1.674E-09	4.434E-08	1.661E-07	1.973E-07	1.656E-07	1.002E-07	6.739E-08	4.874E-08	3.713E-08	2.940E-08	2.399E-08
WNW	1.018E-09	1.518E-08	1.084E-07	1.905E-07	2.318E-07	1.418E-07	9.637E-08	7.379E-08	5.892E-08	4.672E-08	3.819E-08
NW	1.550E-08	6.484E-08	1.495E-07	2.584E-07	3.941E-07	2.347E-07	1.574E-07	1.171E-07	9.165E-08	7.275E-08	5.954E-08
NNW	6.326E-08	1.221E-07	1.499E-07	1.586E-07	1.779E-07	1.631E-07	1.459E-07	1.281E-07	1.138E-07	8.955E-08	7.276E-08
N	6.758E-08	1.018E-07	1.068E-07	9.435E-08	8.176E-08	7.026E-08	5.930E-08	4.924E-08	4.150E-08	3.549E-08	3.078E-08
NNE	3.678E-08	1.060E-07	1.139E-07	8.819E-08	6.376E-08	4.989E-08	4.020E-08	3.314E-08	2.787E-08	2.384E-08	2.072E-08
NE	1.864E-08	6.081E-08	6.510E-08	5.384E-08	4.354E-08	3.588E-08	2.963E-08	2.476E-08	2.099E-08	1.805E-08	1.575E-08
ENE	1.793E-08	2.073E-08	2.418E-08	2.369E-08	2.167E-08	1.808E-08	1.484E-08	1.231E-08	1.037E-08	8.889E-09	7.736E-09
E	3.259E-09	2.583E-08	3.689E-08	3.348E-08	2.765E-08	2.238E-08	1.813E-08	1.491E-08	1.247E-08	1.061E-08	9.165E-09
ESE	3.115E-09	1.973E-08	3.125E-08	3.244E-08	2.992E-08	2.509E-08	2.069E-08	1.720E-08	1.451E-08	1.243E-08	1.079E-08
SE	1.035E-08	4.403E-08	6.697E-08	6.662E-08	5.759E-08	4.608E-08	3.669E-08	2.967E-08	2.445E-08	2.053E-08	1.752E-08
SSE	3.361E-08	6.883E-08	9.390E-08	9.674E-08	8.852E-08	7.268E-08	5.873E-08	4.799E-08	3.992E-08	5.406E-08	6.574E-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	4.636E-08	2.740E-08	1.733E-08	9.562E-09	6.390E-09	4.655E-09	3.557E-09	2.832E-09	2.330E-09	1.959E-09	1.673E-09
SSW	2.724E-08	1.798E-08	1.143E-08	6.348E-09	4.299E-09	3.133E-09	2.395E-09	1.906E-09	1.563E-09	1.311E-09	1.119E-09
SW	2.598E-08	1.712E-08	1.096E-08	6.158E-09	4.187E-09	3.085E-09	2.402E-09	1.912E-09	1.566E-09	1.313E-09	1.119E-09
WSW	2.309E-08	1.290E-08	8.436E-09	4.752E-09	3.101E-09	2.227E-09	1.698E-09	1.349E-09	1.105E-09	9.254E-10	7.894E-10
W	2.004E-08	1.051E-08	7.104E-09	4.231E-09	2.906E-09	2.099E-09	1.604E-09	1.277E-09	1.048E-09	8.788E-10	7.505E-10
WNW	3.233E-08	1.788E-08	1.198E-08	7.104E-09	4.797E-09	3.528E-09	2.746E-09	2.210E-09	1.823E-09	1.536E-09	1.317E-09
NW	5.063E-08	2.860E-08	1.966E-08	1.203E-08	8.091E-09	5.948E-09	4.728E-09	3.839E-09	3.186E-09	2.701E-09	2.329E-09
NNW	6.185E-08	3.466E-08	2.239E-08	1.274E-08	8.561E-09	6.286E-09	4.915E-09	3.988E-09	3.357E-09	2.858E-09	2.460E-09
N	2.707E-08	1.674E-08	1.344E-08	1.028E-08	8.466E-09	6.930E-09	5.408E-09	4.367E-09	3.619E-09	3.065E-09	2.641E-09
NNE	2.243E-08	2.857E-08	1.837E-08	1.041E-08	6.981E-09	5.122E-09	3.976E-09	3.207E-09	2.661E-09	2.256E-09	1.946E-09
NE	1.717E-08	2.341E-08	1.512E-08	8.613E-09	5.790E-09	4.255E-09	3.350E-09	2.726E-09	2.272E-09	1.925E-09	1.658E-09
ENE	8.235E-09	1.331E-08	8.805E-09	5.159E-09	3.529E-09	2.625E-09	2.155E-09	1.801E-09	1.500E-09	1.276E-09	1.104E-09
E	9.456E-09	1.501E-08	9.986E-09	5.900E-09	4.061E-09	3.034E-09	2.388E-09	1.949E-09	1.705E-09	1.503E-09	1.301E-09
ESE	1.106E-08	1.234E-08	8.117E-09	4.718E-09	3.210E-09	2.380E-09	1.862E-09	1.512E-09	1.262E-09	1.075E-09	9.315E-10
SE	1.518E-08	8.863E-09	6.483E-09	4.315E-09	3.078E-09	2.385E-09	1.948E-09	1.648E-09	1.370E-09	1.164E-09	1.005E-09
SSE	5.583E-08	3.066E-08	1.950E-08	1.087E-08	7.209E-09	5.244E-09	4.043E-09	3.245E-09	2.681E-09	2.264E-09	1.947E-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	1.377E-07	1.097E-07	7.159E-08	5.244E-08	5.033E-08	2.714E-08	9.879E-09	4.678E-09	2.848E-09	1.963E-09
SSW	4.075E-08	4.929E-08	4.114E-08	3.825E-08	3.044E-08	1.713E-08	6.567E-09	3.149E-09	1.915E-09	1.315E-09
SW	7.064E-08	1.226E-07	7.467E-08	4.364E-08	2.967E-08	1.636E-08	6.354E-09	3.106E-09	1.920E-09	1.316E-09
WSW	8.014E-08	1.422E-07	7.816E-08	4.251E-08	2.742E-08	1.318E-08	4.837E-09	2.248E-09	1.356E-09	9.281E-10
W	1.529E-07	1.436E-07	6.868E-08	3.750E-08	2.413E-08	1.111E-08	4.281E-09	2.116E-09	1.283E-09	8.813E-10
WNW	1.242E-07	1.826E-07	9.945E-08	5.852E-08	3.855E-08	1.847E-08	7.162E-09	3.554E-09	2.216E-09	1.540E-09
NW	1.791E-07	2.931E-07	1.619E-07	9.173E-08	6.015E-08	2.952E-08	1.198E-08	6.032E-09	3.844E-09	2.707E-09
NNW	1.476E-07	1.670E-07	1.434E-07	1.087E-07	7.369E-08	3.525E-08	1.303E-08	6.345E-09	4.012E-09	2.858E-09
N	1.001E-07	7.945E-08	5.820E-08	4.142E-08	3.080E-08	1.757E-08	1.018E-08	6.731E-09	4.379E-09	3.072E-09
NNE	1.007E-07	6.302E-08	3.996E-08	2.784E-08	2.228E-08	2.267E-08	1.065E-08	5.159E-09	3.219E-09	2.261E-09
NE	5.914E-08	4.242E-08	2.935E-08	2.095E-08	1.696E-08	1.834E-08	8.805E-09	4.302E-09	2.731E-09	1.929E-09
ENE	2.320E-08	2.052E-08	1.469E-08	1.036E-08	8.262E-09	1.018E-08	5.245E-09	2.678E-09	1.788E-09	1.279E-09
E	3.291E-08	2.660E-08	1.797E-08	1.246E-08	9.700E-09	1.154E-08	5.991E-09	3.050E-09	1.982E-09	1.488E-09
ESE	2.922E-08	2.834E-08	2.047E-08	1.449E-08	1.138E-08	1.018E-08	4.803E-09	2.394E-09	1.517E-09	1.077E-09
SE	6.172E-08	5.448E-08	3.639E-08	2.445E-08	1.754E-08	9.208E-09	4.247E-09	2.395E-09	1.628E-09	1.166E-09
SSE	8.959E-08	8.331E-08	5.816E-08	4.761E-08	5.861E-08	3.129E-08	1.116E-08	5.288E-09	3.258E-09	2.270E-09

[illegible][illegible][illegible]

CHT/Q (SEC/METER CUBED) FOR EACH SEGMENT									
DIRECTION FROM SITE	5-1	1-2	2-3	SEGMENT BOUNDARIES 9-5	IN MILES 5-10	10-20	20-30	30-40	40-50
SSW	1.36E-07	1.07E-07	6.93E-08	5.030E-08	2.540E-08	8.606E-09	3.707E-09	2.18E-09	1.39E-09
SSW	1.02E-08	1.57E-08	7.01E-08	2.92E-08	1.618E-08	5.778E-09	5.492E-09	1.47E-09	1.97E-10
SW	7.03E-08	1.11E-07	7.28E-08	2.85E-08	1.543E-08	5.589E-09	2.747E-09	1.49E-09	1.95E-10
WSW	7.95E-08	1.02E-07	7.600E-08	2.69E-08	1.523E-08	5.203E-09	1.819E-09	1.04E-09	6.83E-10
W	1.53E-07	1.04E-07	6.23E-08	2.69E-08	1.037E-08	3.777E-09	1.730E-09	1.00E-09	6.94E-10
NNW	1.34E-07	1.06E-07	5.69E-08	2.69E-08	1.720E-08	1.37E-09	2.744E-09	1.08E-09	6.94E-10
NNW	1.77E-07	1.06E-07	8.82E-08	5.77E-08	1.58E-08	1.034E-08	4.744E-09	2.75E-09	1.88E-09
NNW	1.45E-08	1.04E-07	1.40E-07	2.92E-08	1.75E-08	1.26E-09	6.32E-09	3.83E-09	6.06E-09
N	9.85E-08	1.78E-08	1.67E-08	2.92E-08	1.75E-08	9.662E-09	6.13E-09	2.49E-09	6.06E-09
NNE	8.89E-08	3.37E-08	8.74E-08	2.14E-08	1.76E-08	9.606E-09	3.530E-09	2.11E-09	1.43E-09
ENE	2.26E-08	1.14E-08	2.85E-08	1.63E-08	1.07E-09	7.945E-09	2.24E-09	1.29E-09	1.87E-10
ENE	2.23E-08	1.09E-08	1.99E-08	7.92E-09	1.11E-09	5.374E-09	2.41E-09	1.92E-09	1.97E-10
ESE	2.80E-08	1.60E-08	1.40E-08	1.09E-08	9.72E-09	4.268E-09	2.879E-09	1.08E-09	1.10E-10
ESE	6.08E-08	3.54E-08	2.34E-08	1.66E-08	1.82E-09	3.883E-09	2.177E-09	1.47E-09	1.52E-09
SSE	1.86E-08	4.590E-08	5.65E-08	5.65E-08	2.94E-08	9.681E-09	4.186E-09	1.41E-09	1.59E-09

ERP ELEVATED STACK RELEASES - JAN-JUN 1994
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
S	9.959E-09	8.051E-09	6.769E-09	4.632E-09	2.245E-09	1.375E-09	9.287E-10	6.667E-10	4.992E-10	3.991E-10	3.611E-10
SSW	1.864E-09	1.849E-09	2.064E-09	1.708E-09	9.500E-10	6.134E-10	4.256E-10	3.099E-10	2.902E-10	2.194E-10	1.717E-10
SW	1.434E-09	1.423E-09	1.588E-09	1.315E-09	1.317E-09	7.170E-10	4.447E-10	3.022E-10	2.185E-10	1.653E-10	1.294E-10
WSW	1.026E-09	1.127E-09	1.390E-09	2.347E-09	1.300E-09	7.044E-10	4.351E-10	2.948E-10	2.128E-10	1.608E-10	1.258E-10
W	6.059E-10	3.949E-09	3.574E-09	2.274E-09	1.125E-09	5.985E-10	3.659E-10	2.461E-10	1.768E-10	1.334E-10	1.044E-10
WNW	7.545E-10	9.362E-10	3.615E-09	2.725E-09	1.661E-09	8.391E-10	4.985E-10	3.314E-10	2.457E-10	1.874E-10	1.507E-10
NW	6.625E-09	5.283E-09	4.334E-09	5.049E-09	2.934E-09	1.464E-09	8.683E-10	5.783E-10	4.197E-10	3.259E-10	2.670E-10
NNW	1.180E-08	9.035E-09	6.846E-09	4.249E-09	2.841E-09	1.514E-09	9.352E-10	7.269E-10	5.288E-10	4.111E-10	3.370E-10
N	1.156E-08	9.017E-09	7.096E-09	4.574E-09	2.101E-09	1.257E-09	8.380E-10	5.975E-10	4.458E-10	3.439E-10	2.722E-10
NNE	9.445E-09	7.124E-09	5.228E-09	3.135E-09	1.338E-09	7.717E-10	5.043E-10	3.556E-10	2.638E-10	2.030E-10	1.607E-10
NE	5.483E-09	4.173E-09	3.122E-09	1.912E-09	8.344E-10	4.869E-10	3.203E-10	2.267E-10	1.685E-10	1.297E-10	1.027E-10
ENE	2.613E-09	2.033E-09	1.592E-09	1.021E-09	4.668E-10	2.786E-10	1.855E-10	1.322E-10	9.860E-11	7.605E-11	6.020E-11
E	2.617E-09	2.059E-09	1.646E-09	1.077E-09	5.016E-10	3.019E-10	2.020E-10	1.443E-10	1.078E-10	8.316E-11	6.583E-11
ESE	2.098E-09	1.817E-09	1.707E-09	1.272E-09	6.596E-10	4.151E-10	2.843E-10	2.056E-10	1.545E-10	1.196E-10	9.467E-11
SE	5.694E-09	4.724E-09	4.152E-09	2.945E-09	1.471E-09	9.119E-10	6.199E-10	4.466E-10	3.349E-10	2.589E-10	2.050E-10
SSE	7.808E-09	6.637E-09	6.064E-09	4.431E-09	2.264E-09	1.416E-09	9.673E-10	6.985E-10	5.246E-10	4.884E-10	4.431E-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
S	2.906E-10	1.723E-10	1.125E-10	6.300E-11	4.002E-11	3.030E-11	2.176E-11	1.637E-11	1.297E-11	1.034E-11	8.440E-12
SSW	1.388E-10	9.102E-11	6.096E-11	3.474E-11	2.351E-11	1.631E-11	1.168E-11	8.776E-12	6.875E-12	5.492E-12	4.482E-12
SW	1.051E-10	7.251E-11	4.923E-11	2.839E-11	1.796E-11	1.283E-11	9.288E-12	7.072E-12	5.499E-12	4.393E-12	3.585E-12
WSW	1.034E-10	6.492E-11	4.319E-11	2.830E-11	1.714E-11	1.150E-11	8.302E-12	6.234E-12	4.847E-12	3.872E-12	3.160E-12
W	8.432E-11	3.879E-11	3.609E-11	2.085E-11	1.463E-11	9.834E-12	7.047E-12	5.291E-12	4.114E-12	3.286E-12	2.682E-12
WNW	1.277E-10	7.190E-11	4.956E-11	2.893E-11	1.928E-11	1.282E-11	9.266E-12	6.958E-12	5.436E-12	4.342E-12	3.544E-12
NW	2.291E-10	1.355E-10	9.590E-11	5.939E-11	3.620E-11	2.424E-11	1.743E-11	1.309E-11	1.024E-11	8.182E-12	6.678E-12
NNW	2.891E-10	1.704E-10	1.205E-10	7.244E-11	4.678E-11	3.168E-11	2.212E-11	1.634E-11	1.266E-11	1.012E-11	8.259E-12
N	2.291E-10	1.052E-10	6.481E-11	3.494E-11	6.461E-11	4.070E-11	2.914E-11	2.188E-11	1.701E-11	1.359E-11	1.110E-11
NNE	1.311E-10	1.705E-10	1.054E-10	5.469E-11	3.341E-11	2.240E-11	1.603E-11	1.201E-11	9.327E-12	7.444E-12	6.072E-12
NE	8.310E-11	1.248E-10	7.760E-11	4.049E-11	2.475E-11	1.657E-11	1.197E-11	8.959E-12	6.993E-12	5.586E-12	4.559E-12
ENE	4.867E-11	5.297E-11	3.861E-11	2.370E-11	1.530E-11	1.028E-11	7.320E-12	4.889E-12	3.803E-12	3.040E-12	2.484E-12
E	5.320E-11	5.976E-11	4.375E-11	2.693E-11	1.737E-11	1.165E-11	8.275E-12	6.140E-12	4.720E-12	3.439E-12	2.807E-12
ESE	7.639E-11	7.451E-11	5.274E-11	3.155E-11	2.016E-11	1.348E-11	9.572E-12	7.102E-12	5.465E-12	4.337E-12	3.522E-12
SE	1.655E-10	7.885E-11	4.839E-11	2.589E-11	1.612E-11	1.126E-11	8.481E-12	1.180E-11	9.190E-12	7.384E-12	6.065E-12
SSE	3.674E-10	2.627E-10	1.607E-10	8.224E-11	4.998E-11	3.349E-11	2.396E-11	1.797E-11	1.395E-11	1.114E-11	9.083E-12

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS *****
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	6.104E-09	2.389E-09	9.429E-10	5.089E-10	3.462E-10	1.720E-10	6.379E-11	2.947E-11	1.661E-11	1.041E-11
SSW	1.858E-09	9.689E-10	4.294E-10	2.688E-10	1.737E-10	8.828E-11	3.558E-11	1.638E-11	8.883E-12	5.528E-12
SW	1.430E-09	1.050E-09	4.603E-10	2.221E-10	1.310E-10	6.940E-11	2.839E-11	1.278E-11	7.106E-12	4.421E-12
WSW	1.757E-09	1.268E-09	4.508E-10	2.164E-10	1.279E-10	6.382E-11	2.665E-11	1.173E-11	6.296E-12	3.897E-12
W	3.079E-09	1.146E-09	3.800E-10	1.801E-10	1.055E-10	4.771E-11	2.147E-11	9.997E-12	5.344E-12	3.308E-12
WNW	2.624E-09	1.532E-09	5.225E-10	2.480E-10	1.531E-10	7.438E-11	2.923E-11	1.312E-11	7.038E-12	4.371E-12
NW	4.862E-09	2.750E-09	9.111E-10	4.293E-10	2.704E-10	1.387E-10	5.720E-11	2.471E-11	1.325E-11	8.236E-12
NNW	6.178E-09	2.564E-09	1.006E-09	5.406E-10	3.412E-10	1.746E-10	7.172E-11	3.188E-11	1.659E-11	1.018E-11
N	6.402E-09	2.275E-09	8.535E-10	4.503E-10	2.741E-10	1.128E-10	5.477E-11	4.245E-11	2.210E-11	1.368E-11
NNE	4.719E-09	1.485E-09	5.161E-10	2.669E-10	1.619E-10	1.326E-10	5.651E-11	2.279E-11	1.214E-11	7.494E-12
NE	2.818E-09	9.194E-10	3.273E-10	1.703E-10	1.035E-10	9.456E-11	4.174E-11	1.691E-11	9.072E-12	5.623E-12
ENE	1.436E-09	5.063E-10	1.890E-10	9.961E-11	6.063E-11	4.563E-11	2.328E-11	1.044E-11	5.170E-12	3.060E-12
E	1.485E-09	5.406E-10	2.055E-10	1.088E-10	6.629E-11	5.118E-11	2.642E-11	1.182E-11	6.209E-12	3.585E-12
ESE	1.538E-09	6.870E-10	2.877E-10	1.558E-10	9.528E-11	6.525E-11	3.120E-11	1.370E-11	7.184E-12	4.370E-12
SE	3.743E-09	1.550E-09	6.285E-10	3.379E-10	2.063E-10	8.457E-11	2.655E-11	1.144E-11	9.857E-12	7.431E-12
SSE	5.466E-09	2.369E-09	9.796E-10	5.605E-10	4.285E-10	2.406E-10	8.534E-11	3.408E-11	1.815E-11	1.121E-11

ERP ELEVATED STACK RELEASES - JAN-JUN 1994
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE		X/Q			D/Q (PER SQ.METER)
			(MILES)	(METERS)	(SEC/CUB.METER)	(SEC/CUB.METER)	(SEC/CUB.METER)	
					NO DECAY UNDEPLETED	2,260 DAY DECAY UNDEPLETED	8,000 DAY DECAY DEPLETED	
A	SITE BOUNDARY	S	0.80	1287.	1.508E-07	1.508E-07	1.477E-07	6.289E-09
A	SITE BOUNDARY	SSW	0.82	1327.	4.436E-08	4.430E-08	4.377E-08	1.991E-09
A	SITE BOUNDARY	SW	0.98	1569.	1.030E-07	1.028E-07	1.024E-07	1.361E-09
A	SITE BOUNDARY	WSW	0.93	1489.	1.103E-07	1.101E-07	1.098E-07	2.211E-09
A	SITE BOUNDARY	W	0.91	1468.	1.937E-07	1.934E-07	1.913E-07	2.639E-09
A	SITE BOUNDARY	WNW	0.94	1509.	1.751E-07	1.748E-07	1.736E-07	3.041E-09
A	SITE BOUNDARY	NW	0.81	1307.	1.755E-07	1.753E-07	1.735E-07	3.925E-09
A	SITE BOUNDARY	NNW	0.69	1106.	1.410E-07	1.409E-07	1.385E-07	7.274E-09
A	SITE BOUNDARY	N	0.67	1086.	1.043E-07	1.043E-07	1.025E-07	7.539E-09
A	SITE BOUNDARY	NNE	0.60	965.	1.125E-07	1.124E-07	1.108E-07	6.241E-09
A	SITE BOUNDARY	NE	0.62	1005.	6.394E-08	6.390E-08	6.290E-08	3.573E-09
A	SITE BOUNDARY	ENE	0.59	945.	2.149E-08	2.147E-08	2.119E-08	1.845E-09
A	SITE BOUNDARY	E	0.53	845.	2.751E-08	2.749E-08	2.722E-08	2.003E-09
A	SITE BOUNDARY	ESE	0.54	865.	2.159E-08	2.158E-08	2.135E-08	1.783E-09
A	SITE BOUNDARY	SE	0.65	1046.	5.840E-08	5.837E-08	5.749E-08	4.303E-09
A	SITE BOUNDARY	SSE	0.81	1307.	9.512E-08	9.504E-08	9.357E-08	5.646E-09
A	NEAR. RESIDENCE	SW	1.30	2092.	1.481E-07	1.477E-07	1.466E-07	1.755E-09
A	NEAR. RESIDENCE	WSW	1.30	2092.	1.812E-07	1.807E-07	1.791E-07	1.733E-09
A	NEAR. RESIDENCE	W	1.00	1609.	1.976E-07	1.973E-07	1.947E-07	2.274E-09
A	NEAR. RESIDENCE	WNW	1.60	2575.	2.086E-07	2.079E-07	2.043E-07	1.425E-09
A	NEAR. RESIDENCE	NW	0.90	1448.	2.143E-07	2.140E-07	2.121E-07	5.657E-09
A	NEAR. RESIDENCE	NNW	1.90	3058.	1.671E-07	1.666E-07	1.637E-07	1.696E-09
A	NEAR. RESIDENCE	N	3.00	4828.	4.949E-08	4.924E-08	4.780E-08	5.975E-10
A	NEAR. RESIDENCE	NNE	2.70	4345.	3.731E-08	3.712E-08	3.595E-08	4.354E-10
A	NEAR. RESIDENCE	ENE	1.70	2736.	2.032E-08	2.026E-08	1.988E-08	3.647E-10
A	NEAR. RESIDENCE	E	2.00	3219.	2.246E-08	2.238E-08	2.181E-08	3.019E-10
A	NEAR. RESIDENCE	ESE	2.75	4426.	1.890E-08	1.884E-08	1.831E-08	2.404E-10
A	NEAREST COW	NNW	3.50	5633.	1.145E-07	1.138E-07	1.115E-07	5.287E-10
A	NEAREST GARDEN	SW	1.30	2092.	1.481E-07	1.477E-07	1.466E-07	1.755E-09
A	NEAREST GARDEN	WSW	2.60	4184.	7.191E-08	7.154E-08	6.939E-08	4.001E-10
A	NEAREST GARDEN	WNW	1.60	2575.	2.086E-07	2.079E-07	2.043E-07	1.425E-09
A	NEAREST GARDEN	NW	1.90	3058.	2.583E-07	2.574E-07	2.525E-07	1.655E-09
A	NEAREST GARDEN	NNW	1.90	3058.	1.671E-07	1.666E-07	1.637E-07	1.696E-09
A	NEAREST GARDEN	N	3.00	4828.	4.949E-08	4.924E-08	4.780E-08	5.975E-10
A	NEAREST GARDEN	NNE	2.70	4345.	3.731E-08	3.712E-08	3.595E-08	4.354E-10
A	NEAREST GARDEN	ENE	1.70	2736.	2.032E-08	2.026E-08	1.988E-08	3.647E-10
A	NEAREST GARDEN	E	2.00	3219.	2.246E-08	2.238E-08	2.181E-08	3.019E-10
A	NEAREST GARDEN	ESE	2.40	3863.	2.156E-08	2.150E-08	2.096E-08	3.051E-10
A	NEAREST GARDEN	SE	2.20	3541.	4.213E-08	4.202E-08	4.090E-08	7.747E-10

ATMOSPHERIC DIFFUSION MODEL

Onsite meteorological data from January 1 through June 30, 1994, 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/CR2919). 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:

$$(X/Q)_i = 2.032 \sum_{jk} \frac{f_{ijk}}{x_{Ujk} z_{zk}} \exp \left[\frac{-\frac{1}{2} h_0^2}{\sigma_{zk}^2} \right] \quad (\text{Eq. 1})$$

and

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

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 stability 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 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

	<u>Page</u>
LIQUID EFFLUENT DOSE CALCULATIONS	C1
GASEOUS EFFLUENT DOSE CALCULATIONS	C4
DOSE CALCULATION MODELS	C17

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 1994, Cooper Nuclear Station

Dose to Individual, mrem								
Period and Pathway	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
<u>1st Quarter</u>								
Drinking Water		5.02 E-04	6.48 E-04	7.00 E-04	0.00 E+00	1.34 E-04	4.91 E-05	4.51 E-03
Shoreline	2.05 E-05	1.75 E-05	1.75 E-05	1.75 E-05	1.75 E-05	1.75 E-05	1.75 E-05	1.75 E-05
Totals	2.05 E-05	5.20 E-04	6.66 E-04	7.18 E-04	1.75 E-05	1.52 E-04	6.66 E-05	4.53 E-03
<u>2nd Quarter</u>								
Eating Fish		8.20 E-04	1.22 E-03	8.38 E-04	0.00 E+00	4.08 E-04	1.34 E-04	1.97 E-04
Drinking Water		1.36 E-03	1.39 E-03	1.32 E-03	0.00 E+00	3.80 E-04	1.24 E-04	5.37 E-03
Shoreline	2.56 E-05	2.17 E-05	2.17 E-05	2.17 E-05	2.17 E-05	2.17 E-05	2.17 E-05	2.17 E-05
Totals	2.56 E-05	2.20 E-03	2.63 E-03	2.18 E-03	2.17 E-05	8.10 E-04	2.80 E-04	5.59 E-03

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 Withing a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, Jan-June 1994, Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter								
Drinking Water		4.93 E-04	5.46 E-04	5.77 E-04	0.00 E+00	1.13 E-04	4.39 E-05	2.88 E-03
Shoreline	1.09 E-03	9.25 E-04	9.25 E-04	9.25 E-04	9.25 E-04	9.25 E-04	9.25 E-04	9.25 E-04
Totals	1.09 E-03	1.42 E-03	1.47 E-03	1.50 E-03	9.25 E-04	1.04 E-03	9.69 E-04	3.81 E-03
2nd Quarter								
Eating Fish		5.75 E-05	7.94 E-05	4.51 E-05	0.00 E+00	2.64 E-05	8.97 E-06	1.07 E-05
Drinking Water		1.37 E-03	1.22 E-03	1.02 E-03	0.00 E+00	3.31 E-04	1.13 E-04	3.54 E-03
Shoreline	1.35 E-03	1.15 E-03	1.15 E-03	1.15 E-03	1.15 E-03	1.15 E-03	1.15 E-03	1.15 E-03
Swimming		2.42 E-06	2.42 E-06	2.42 E-06	2.42 E-06	2.42 E-06	2.42 E-06	2.42 E-06
Boating		2.69 E-05	2.69 E-05	2.69 E-05	2.69 E-05	2.69 E-05	2.69 E-05	2.69 E-05
Totals	1.35 E-03	2.61 E-03	2.48 E-03	2.24 E-03	1.18 E-03	1.54 E-03	1.30 E-03	4.73 E-03
Totals for 1st & 2nd Quarters	2.44 E-03	4.03 E-03	3.95 E-03	3.74 E-03	2.11 E-03	2.58 E-03	2.27 E-03	8.54 E-03

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 meteorological data recovered, dose contributions from the first and second quarters of 1994 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 1994

COOPER NUCLEAR STATION JANUARY-MARCH 1994
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.67 MILES N

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	4.65E-05	4.65E-05	4.65E-05	4.66E-05	4.67E-05	9.64E-05	4.71E-05	1.16E-04
TEEN	4.65E-05	4.65E-05	4.66E-05	4.66E-05	4.68E-05	1.16E-04	4.71E-05	1.16E-04
CHILD	4.66E-05	4.64E-05	4.68E-05	4.68E-05	4.71E-05	1.79E-04	4.71E-05	1.16E-04
INFANT	4.68E-05	4.64E-05	4.71E-05	4.73E-05	4.74E-05	3.29E-04	4.71E-05	1.16E-04

COOPER NUCLEAR STATION JANUARY-MARCH 1994
SPECIAL LOCATION # 2 NEAR RESIDENCE
AT 0.90 MILES NW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	2.35E-04	2.35E-04	2.35E-04	2.35E-04	2.36E-04	3.52E-04	2.38E-04	5.57E-04
TEEN	2.35E-04	2.35E-04	2.35E-04	2.36E-04	2.36E-04	3.99E-04	2.38E-04	5.57E-04
CHILD	2.36E-04	2.35E-04	2.36E-04	2.36E-04	2.37E-04	5.45E-04	2.38E-04	5.57E-04
INFANT	2.36E-04	2.35E-04	2.37E-04	2.37E-04	2.37E-04	8.93E-04	2.38E-04	5.57E-04

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 1994

(CONTINUED)

COOPER NUCLEAR STATION JANUARY-MARCH 1994
SPECIAL LOCATION # 3 NEAREST COW
AT 3.50 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	3.62E-05	3.62E-05	3.62E-05	3.62E-05	3.62E-05	4.38E-05	3.66E-05	7.40E-05
TEEN	3.62E-05	3.62E-05	3.62E-05	3.62E-05	3.63E-05	4.67E-05	3.66E-05	7.40E-05
CHILD	3.62E-05	3.62E-05	3.63E-05	3.63E-05	3.63E-05	5.58E-05	3.66E-05	7.40E-05
INFANT	3.63E-05	3.62E-05	3.63E-05	3.63E-05	3.63E-05	7.71E-05	3.66E-05	7.40E-05

COOPER NUCLEAR STATION JANUARY-MARCH 1994
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	7.33E-05	7.33E-05	7.34E-05	7.34E-05	7.34E-05	9.59E-05	7.41E-05	1.54E-04
TEEN	7.34E-05	7.33E-05	7.34E-05	7.34E-05	7.35E-05	1.05E-04	7.41E-05	1.54E-04
CHILD	7.34E-05	7.33E-05	7.35E-05	7.35E-05	7.36E-05	1.32E-04	7.41E-05	1.54E-04
INFANT	7.35E-05	7.33E-05	7.36E-05	7.37E-05	7.37E-05	1.98E-04	7.41E-05	1.54E-04

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 1994

COOPER NUCLEAR STATION APRIL-JUNE 1994
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.69 MILES NNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	7.12E-03	8.15E-03	6.99E-03	7.05E-03	6.99E-03	7.33E-03	7.36E-03	8.96E-03
TEEN	7.18E-03	8.11E-03	6.99E-03	7.08E-03	6.99E-03	7.46E-03	7.52E-03	8.96E-03
CHILD	7.37E-03	7.70E-03	6.99E-03	7.12E-03	6.99E-03	7.88E-03	7.42E-03	8.96E-03
INFANT	7.02E-03	7.02E-03	6.99E-03	7.01E-03	6.99E-03	8.89E-03	7.27E-03	8.96E-03

COOPER NUCLEAR STATION APRIL-JUNE 1994
SPECIAL LOCATION # 2 NEAR RESIDENCE
AT 0.90 MILES NW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	2.75E-03	3.10E-03	2.71E-03	2.73E-03	2.71E-03	2.87E-03	2.80E-03	3.84E-03
TEEN	2.77E-03	3.09E-03	2.71E-03	2.74E-03	2.71E-03	2.93E-03	2.83E-03	3.84E-03
CHILD	2.83E-03	2.95E-03	2.71E-03	2.75E-03	2.71E-03	3.13E-03	2.81E-03	3.84E-03
INFANT	2.72E-03	2.72E-03	2.71E-03	2.71E-03	2.71E-03	3.62E-03	2.78E-03	3.84E-03

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 1994

(CONTINUED)

COOPER NUCLEAR STATION APRIL-JUNE 1994
SPECIAL LOCATION # 3 NEAREST COM
AT 3.50 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	2.56E-04	2.76E-04	2.53E-04	2.54E-04	2.53E-04	2.74E-04	2.64E-04	4.05E-04
TEEN	2.57E-04	2.75E-04	2.53E-04	2.55E-04	2.53E-04	2.62E-04	2.69E-04	4.05E-04
CHILD	2.61E-04	2.67E-04	2.53E-04	2.56E-04	2.53E-04	3.07E-04	2.66E-04	4.05E-04
INFANT	2.54E-04	2.54E-04	2.53E-04	2.54E-04	2.53E-04	3.66E-04	2.62E-04	4.05E-04

COOPER NUCLEAR STATION APRIL-JUNE 1994
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	8.22E-04	9.08E-04	8.11E-04	8.16E-04	8.11E-04	8.78E-04	8.50E-04	1.24E-03
TEEN	8.27E-04	9.04E-04	8.11E-04	8.18E-04	8.12E-04	9.03E-04	8.67E-04	1.24E-03
CHILD	8.43E-04	8.70E-04	8.12E-04	8.22E-04	8.12E-04	9.86E-04	8.57E-04	1.24E-03
INFANT	8.14E-04	8.14E-04	8.12E-04	8.13E-04	8.12E-04	1.18E-03	8.42E-04	1.24E-03

TABLE 5. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-MARCH 1994

COOPER NUCLEAR STATION JANUARY-MARCH 1994
 ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.85E-05	9.85E-05	9.85E-05	9.85E-05	9.85E-05	9.85E-05	1.00E-04	2.46E-04
GROUND	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.33E-08
INHAL	7.94E-09	2.02E-09	1.08E-08	1.40E-08	2.38E-08	4.62E-06	0.00E+00	0.00E+00
VEGET	1.12E-07	3.73E-08	1.60E-07	1.97E-07	3.33E-07	6.39E-05	0.00E+00	0.00E+00
COW MILK	1.46E-07	4.52E-08	2.16E-07	2.59E-07	4.35E-07	8.37E-05	0.00E+00	0.00E+00
MEAT	3.13E-09	1.22E-09	4.18E-09	5.50E-09	9.35E-09	1.79E-06	0.00E+00	0.00E+00
TOTAL	9.88E-05	9.86E-05	9.89E-05	9.90E-05	9.93E-05	2.53E-04	1.00E-04	2.46E-04

TABLE 6. DOSES TO POPULATION WITHIN 50 MILES, APRIL-JUNE 1994

COOPER NUCLEAR STATION APRIL-JUNE 1994
 ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.09E-04	5.12E-04
GROUND	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.63E-04
INHAL	1.31E-07	1.77E-06	1.61E-08	1.08E-07	3.53E-08	6.86E-06	4.62E-05	0.00E+00
VEGET	1.09E-05	5.87E-05	2.11E-07	4.62E-06	4.37E-07	8.39E-05	0.00E+00	0.00E+00
COW MILK	1.57E-06	6.83E-06	2.85E-07	8.88E-07	5.75E-07	1.11E-04	0.00E+00	0.00E+00
MEAT	3.16E-06	2.14E-05	5.66E-09	1.35E-06	1.27E-08	2.42E-06	0.00E+00	0.00E+00
TOTAL	5.30E-04	6.03E-04	5.15E-04	5.21E-04	5.16E-04	7.18E-04	5.64E-04	8.75E-04

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 1994

COOPER NUCLEAR STATION JANUARY-JUNE 1994
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.67 MILES N

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	6.42E-03	7.32E-03	6.30E-03	6.35E-03	6.30E-03	6.67E-03	6.63E-03	8.37E-03
TEEN	6.47E-03	7.28E-03	6.30E-03	6.37E-03	6.30E-03	6.82E-03	6.78E-03	8.37E-03
CHILD	6.63E-03	6.92E-03	6.30E-03	6.41E-03	6.30E-03	7.29E-03	6.69E-03	8.37E-03
INFANT	6.33E-03	6.33E-03	6.30E-03	6.32E-03	6.30E-03	8.41E-03	6.55E-03	8.37E-03

COOPER NUCLEAR STATION JANUARY-JUNE 1994
SPECIAL LOCATION # 2 NEAR RESIDENCE
AT 0.90 MILES NW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	2.82E-03	3.15E-03	2.77E-03	2.79E-03	2.77E-03	3.06E-03	2.87E-03	4.06E-03
TEEN	2.84E-03	3.14E-03	2.77E-03	2.80E-03	2.77E-03	3.17E-03	2.91E-03	4.06E-03
CHILD	2.90E-03	3.00E-03	2.77E-03	2.82E-03	2.78E-03	3.52E-03	2.89E-03	4.06E-03
INFANT	2.79E-03	2.78E-03	2.78E-03	2.78E-03	2.78E-03	4.37E-03	2.85E-03	4.06E-03

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 1994

(CONTINUED)

COOPER NUCLEAR STATION JANUARY-JUNE 1994
SPECIAL LOCATION # 3 NEAREST COW
AT 3.50 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	2.46E-04	2.62E-04	2.44E-04	2.45E-04	2.44E-04	2.72E-04	2.54E-04	4.15E-04
TEEN	2.47E-04	2.61E-04	2.44E-04	2.45E-04	2.44E-04	2.82E-04	2.58E-04	4.15E-04
CHILD	2.50E-04	2.55E-04	2.44E-04	2.46E-04	2.44E-04	3.16E-04	2.56E-04	4.15E-04
INFANT	2.45E-04	2.44E-04	2.44E-04	2.45E-04	2.44E-04	3.94E-04	2.52E-04	4.15E-04

COOPER NUCLEAR STATION JANUARY-JUNE 1994
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.90 MILESNNW

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
ADULT	7.39E-04	8.03E-04	7.30E-04	7.34E-04	7.30E-04	8.16E-04	7.62E-04	1.18E-03
TEEN	7.42E-04	8.01E-04	7.30E-04	7.36E-04	7.31E-04	8.50E-04	7.75E-04	1.18E-03
CHILD	7.54E-04	7.75E-04	7.31E-04	7.39E-04	7.31E-04	9.57E-04	7.67E-04	1.18E-03
INFANT	7.33E-04	7.32E-04	7.31E-04	7.32E-04	7.32E-04	1.21E-03	7.55E-04	1.18E-03

TABLE 8. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-JUNE 1994

COOPER NUCLEAR STATION JANUARY-JUNE 1994
 ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.00E-04	3.00E-04	3.00E-04	3.00E-04	3.00E-04	3.00E-04	3.05E-04	7.48E-04
GROUND	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	3.30E-04
INHAL	1.29E-07	1.62E-06	2.71E-08	1.15E-07	5.96E-08	1.16E-05	4.21E-05	0.00E+00
VEGET	1.11E-05	5.89E-05	3.77E-07	4.84E-06	7.83E-07	1.50E-04	0.00E+00	0.00E+00
COW MILK	1.73E-06	6.91E-06	5.09E-07	1.16E-06	1.03E-06	1.97E-04	0.00E+00	0.00E+00
MEAT	3.17E-06	2.15E-05	9.99E-09	1.36E-06	2.23E-08	4.27E-06	0.00E+00	0.00E+00
TOTAL	5.97E-04	6.70E-04	5.82E-04	5.89E-04	5.83E-04	9.45E-04	6.28E-04	1.08E-03

TABLE 9. GAMMA AND BETA AIR DOSES, JANUARY-MARCH 1994

COOPER NUCLEAR STATION JANUARY-MARCH 1994
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	5.508E-05	5.671E-05	3.183E-05	1.959E-05	1.251E-05	5.298E-06	2.408E-06	1.083E-06	4.890E-07	2.584E-07
NNE	1.597E-04	5.819E-05	2.584E-05	1.467E-05	9.243E-06	1.050E-05	2.732E-06	9.775E-07	4.630E-07	2.539E-07
NE	1.685E-04	6.478E-05	3.364E-05	1.964E-05	1.249E-05	1.297E-05	3.274E-06	1.127E-06	5.157E-07	2.705E-07
ENE	5.715E-05	3.233E-05	1.739E-05	9.500E-06	6.063E-06	7.004E-06	1.853E-06	6.363E-07	3.116E-07	1.626E-07
E	2.582E-05	3.499E-05	1.829E-05	1.017E-05	6.890E-06	6.740E-06	1.724E-06	5.754E-07	2.548E-07	1.343E-07
ESE	5.510E-05	4.697E-05	2.362E-05	1.381E-05	9.456E-06	6.976E-06	1.844E-06	6.950E-07	3.510E-07	2.008E-07
SE	1.256E-04	1.262E-04	5.822E-05	2.956E-05	1.829E-05	6.853E-06	2.238E-06	8.967E-07	4.594E-07	2.577E-07
SSE	3.839E-04	2.054E-04	9.366E-05	5.120E-05	6.196E-05	2.036E-05	4.924E-06	1.782E-06	8.701E-07	4.856E-07
S	2.711E-04	1.798E-04	7.725E-05	4.175E-05	3.607E-05	1.247E-05	2.950E-06	9.732E-07	4.274E-07	2.208E-07
SSW	4.166E-05	8.152E-05	4.203E-05	3.534E-05	2.149E-05	8.184E-06	1.963E-06	6.204E-07	2.631E-07	1.294E-07
SW	8.697E-06	1.214E-04	4.412E-05	2.035E-05	1.161E-05	4.767E-06	1.108E-06	3.389E-07	1.375E-07	6.659E-08
WSW	1.955E-06	1.724E-04	5.115E-05	2.310E-05	1.264E-05	4.597E-06	1.202E-06	3.783E-07	1.611E-07	8.064E-08
W	8.794E-05	1.646E-04	4.646E-05	2.097E-05	1.173E-05	3.718E-06	1.029E-06	3.521E-07	1.546E-07	7.974E-08
WNW	4.361E-05	2.681E-04	7.804E-05	3.676E-05	1.991E-05	6.780E-06	1.772E-06	5.733E-07	2.471E-07	1.257E-07
NW	1.168E-04	4.356E-04	1.199E-04	5.810E-05	3.216E-05	1.132E-05	3.171E-06	1.102E-06	5.186E-07	2.768E-07
NNW	4.851E-05	1.392E-04	8.802E-05	5.393E-05	2.985E-05	1.036E-05	2.606E-06	8.620E-07	3.817E-07	1.957E-07

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	5.539E-05	4.475E-05	2.270E-05	1.399E-05	9.117E-06	4.018E-06	1.890E-06	9.310E-07	4.837E-07	2.998E-07
NNE	1.583E-04	4.609E-05	1.844E-05	1.052E-05	6.785E-06	7.958E-06	2.143E-06	8.151E-07	4.268E-07	2.651E-07
NE	1.675E-04	5.156E-05	2.435E-05	1.398E-05	9.019E-06	9.843E-06	2.584E-06	9.666E-07	5.098E-07	3.167E-07
ENE	5.754E-05	2.573E-05	1.262E-05	6.777E-06	4.412E-06	5.365E-06	1.480E-06	5.660E-07	3.224E-07	2.018E-07
E	2.497E-05	2.817E-05	1.320E-05	7.264E-06	4.979E-06	5.157E-06	1.382E-06	5.212E-07	2.759E-07	1.819E-07
ESE	5.774E-05	4.029E-05	1.768E-05	9.879E-06	6.726E-06	5.142E-06	1.422E-06	5.522E-07	2.924E-07	1.796E-07
SE	1.291E-04	1.124E-04	4.562E-05	2.130E-05	1.301E-05	5.034E-06	1.728E-06	7.158E-07	3.908E-07	2.385E-07
SSE	4.023E-04	1.824E-04	7.274E-05	3.723E-05	4.403E-05	1.496E-05	3.798E-06	1.416E-06	7.274E-07	4.377E-07
S	2.631E-04	1.486E-04	5.642E-05	2.971E-05	2.598E-05	9.444E-06	2.323E-06	8.305E-07	4.156E-07	2.512E-07
SSW	4.140E-05	6.709E-05	3.085E-05	2.516E-05	1.542E-05	6.224E-06	1.554E-06	5.551E-07	2.802E-07	1.698E-07
SW	8.158E-06	8.893E-05	3.138E-05	1.478E-05	8.626E-06	3.680E-06	9.067E-07	3.282E-07	1.678E-07	1.029E-07
WSW	1.937E-06	1.317E-04	3.640E-05	1.663E-05	9.327E-06	3.527E-06	9.621E-07	3.399E-07	1.718E-07	1.045E-07
W	8.409E-05	1.288E-04	3.319E-05	1.499E-05	8.527E-06	2.828E-06	8.139E-07	3.055E-07	1.545E-07	9.406E-08
WNW	4.343E-05	2.077E-04	5.570E-05	2.640E-05	1.465E-05	5.194E-06	1.420E-06	5.203E-07	2.696E-07	1.668E-07
NW	1.177E-04	3.390E-04	8.538E-05	4.159E-05	2.349E-05	8.614E-06	2.503E-06	9.379E-07	4.973E-07	3.070E-07
NNW	4.672E-05	1.108E-04	6.369E-05	3.854E-05	2.174E-05	7.918E-06	2.077E-06	7.675E-07	4.039E-07	2.553E-07

TABLE 10. GAMMA AND BETA AIR DOSES, APRIL-JUNE 1994

COOPER NUCLEAR STATION APRIL-JUNE 1994

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DIR	DISTANCE IN MILES									
	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	7.699E-04	2.211E-04	1.234E-04	6.877E-05	4.436E-05	1.804E-05	7.459E-06	3.630E-06	1.756E-06	9.664E-07
NNE	5.726E-04	1.612E-04	6.836E-05	3.831E-05	2.469E-05	2.293E-05	5.836E-06	1.958E-06	8.825E-07	4.634E-07
NE	2.210E-04	6.310E-05	2.973E-05	1.623E-05	1.102E-05	1.127E-05	2.867E-06	9.556E-07	4.333E-07	2.239E-07
ENE	8.513E-05	3.703E-05	1.653E-05	9.108E-06	5.701E-06	7.468E-06	2.053E-06	7.824E-07	4.194E-07	2.305E-07
E	1.499E-04	4.656E-05	1.927E-05	9.666E-06	5.950E-06	9.294E-06	2.618E-06	9.561E-07	4.469E-07	2.647E-07
ESE	8.592E-05	6.484E-05	3.219E-05	1.770E-05	1.099E-05	1.016E-05	2.718E-06	1.036E-06	5.156E-07	2.901E-07
SE	2.079E-04	9.210E-05	4.041E-05	1.894E-05	1.218E-05	4.707E-06	1.613E-06	7.123E-07	4.077E-07	2.289E-07
SSE	1.083E-04	1.039E-04	4.800E-05	2.716E-05	4.856E-05	1.837E-05	4.718E-06	1.684E-06	7.949E-07	4.335E-07
S	3.995E-04	1.649E-04	7.378E-05	4.126E-05	4.307E-05	1.788E-05	4.450E-06	1.524E-06	6.793E-07	3.567E-07
SSW	9.567E-05	7.814E-05	3.999E-05	3.653E-05	2.350E-05	1.119E-05	2.704E-06	8.865E-07	3.811E-07	1.918E-07
SW	1.182E-04	3.085E-04	1.150E-04	5.493E-05	3.196E-05	1.384E-05	3.351E-06	1.054E-06	4.383E-07	2.146E-07
WSW	5.703E-05	3.902E-04	1.204E-04	5.438E-05	3.081E-05	1.084E-05	2.778E-06	9.482E-07	4.366E-07	2.325E-07
W	2.052E-04	4.020E-04	1.111E-04	4.983E-05	2.784E-05	9.026E-06	2.458E-06	8.197E-07	3.581E-07	1.832E-07
WNW	4.736E-05	4.099E-04	1.244E-04	6.250E-05	3.544E-05	1.264E-05	3.557E-06	1.209E-06	5.375E-07	2.783E-07
NW	3.769E-04	8.316E-04	2.491E-04	1.153E-04	6.514E-05	2.361E-05	6.881E-06	2.420E-06	1.133E-06	6.008E-07
NNW	9.854E-04	5.268E-04	2.802E-04	1.738E-04	9.661E-05	3.327E-05	8.363E-06	2.917E-06	1.348E-06	7.204E-07

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DIR	DISTANCE IN MILES									
	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	7.729E-04	1.758E-04	9.122E-05	4.891E-05	3.163E-05	1.337E-05	5.774E-06	2.545E-06	1.544E-06	9.470E-07
NNE	5.667E-04	1.320E-04	4.930E-05	2.725E-05	1.781E-05	1.747E-05	4.617E-06	1.711E-06	8.948E-07	5.581E-07
NE	2.214E-04	5.069E-05	2.146E-05	1.158E-05	7.955E-06	8.624E-06	2.290E-06	8.576E-07	4.612E-07	2.896E-07
ENE	8.580E-05	3.173E-05	1.241E-05	6.507E-06	4.057E-06	5.570E-06	1.594E-06	6.368E-07	3.721E-07	2.305E-07
E	1.472E-04	3.579E-05	1.371E-05	6.990E-06	4.398E-06	7.078E-06	2.072E-06	8.318E-07	4.515E-07	3.184E-07
ESE	8.359E-05	5.595E-05	2.510E-05	1.284E-05	7.810E-06	7.480E-06	2.098E-06	8.305E-07	4.427E-07	2.749E-07
SE	2.111E-04	8.124E-05	3.172E-05	1.352E-05	8.654E-06	3.442E-06	1.242E-06	5.677E-07	3.470E-07	2.146E-07
SSE	1.068E-04	8.691E-05	3.497E-05	1.930E-05	3.488E-05	1.379E-05	3.673E-06	1.386E-06	7.202E-07	4.442E-07
S	3.984E-04	1.283E-04	5.242E-05	2.970E-05	3.165E-05	1.366E-05	3.533E-06	1.339E-06	6.910E-07	4.292E-07
SSW	9.372E-05	6.103E-05	2.847E-05	2.619E-05	1.732E-05	8.559E-06	2.162E-06	7.998E-07	4.093E-07	2.512E-07
SW	1.171E-04	2.332E-04	8.196E-05	3.939E-05	2.340E-05	1.061E-05	2.706E-06	1.009E-06	5.296E-07	3.286E-07
WSW	5.160E-05	3.047E-04	8.654E-05	3.868E-05	2.219E-05	8.153E-06	2.164E-06	7.809E-07	3.951E-07	2.378E-07
W	2.083E-04	3.347E-04	8.031E-05	3.543E-05	2.011E-05	6.827E-06	1.936E-06	7.111E-07	3.603E-07	2.195E-07
WNW	4.637E-05	3.224E-04	8.869E-05	4.489E-05	2.600E-05	9.658E-06	2.831E-06	1.076E-06	5.655E-07	3.522E-07
NW	3.814E-04	6.839E-04	1.836E-04	8.194E-05	4.674E-05	1.775E-05	5.397E-06	2.049E-06	1.100E-06	6.843E-07
NNW	9.987E-04	4.416E-04	2.032E-04	1.235E-04	6.947E-05	2.507E-05	6.550E-06	2.458E-06	1.287E-06	8.062E-07

TABLE 11. GAMMA AND BETA AIR DOSES, JANUARY-JUNE 1994

COOPER NUCLEAR STATION JANUARY-JUNE 1994

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DIR	DISTANCE IN MILES									
	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	9.685E-04	2.886E-04	1.450E-04	8.283E-05	5.185E-05	2.160E-05	9.277E-06	4.392E-06	2.071E-06	1.118E-06
NNE	5.950E-04	2.161E-04	8.993E-05	5.068E-05	3.282E-05	3.309E-05	8.446E-06	2.905E-06	1.332E-06	7.114E-07
NE	3.934E-04	1.412E-04	6.630E-05	4.030E-05	2.569E-05	2.676E-05	6.778E-06	2.301E-06	1.050E-06	5.487E-07
ENE	1.475E-04	7.433E-05	3.631E-05	1.896E-05	1.283E-05	1.523E-05	4.149E-06	1.478E-06	7.473E-07	3.998E-07
E	1.574E-04	8.957E-05	3.716E-05	2.195E-05	1.389E-05	1.671E-05	4.476E-06	1.553E-06	7.119E-07	3.965E-07
ESE	1.072E-04	1.118E-04	5.620E-05	3.208E-05	2.018E-05	1.753E-05	4.728E-06	1.791E-06	8.872E-07	5.042E-07
SE	3.182E-04	2.496E-04	1.072E-04	5.625E-05	3.523E-05	1.318E-05	4.342E-06	1.797E-06	9.553E-07	5.372E-07
SSE	5.026E-04	3.660E-04	1.638E-04	9.173E-05	1.240E-04	4.232E-05	1.030E-05	3.762E-06	1.813E-06	9.917E-07
S	1.058E-03	4.664E-04	1.617E-04	8.831E-05	8.264E-05	3.143E-05	7.593E-06	2.560E-06	1.130E-06	5.882E-07
SSW	1.529E-04	1.674E-04	8.807E-05	7.582E-05	4.811E-05	1.999E-05	4.863E-06	1.556E-06	6.555E-07	3.346E-07
SW	8.758E-05	4.431E-04	1.514E-04	7.162E-05	4.163E-05	1.772E-05	4.217E-06	1.318E-06	5.439E-07	2.654E-07
WSW	4.173E-05	5.279E-04	1.671E-04	7.605E-05	4.233E-05	1.529E-05	3.872E-06	1.274E-06	5.605E-07	2.916E-07
W	2.841E-04	5.522E-04	1.531E-04	6.959E-05	3.783E-05	1.266E-05	3.389E-06	1.152E-06	5.013E-07	2.556E-07
WNW	9.816E-05	6.741E-04	2.045E-04	1.004E-04	5.601E-05	1.983E-05	5.302E-06	1.759E-06	7.763E-07	3.951E-07
NW	4.663E-04	1.275E-03	3.645E-04	1.705E-04	9.615E-05	3.437E-05	9.911E-06	3.462E-06	1.624E-06	8.621E-07
NNW	7.278E-04	6.200E-04	3.534E-04	2.034E-04	1.187E-04	4.069E-05	1.921E-05	3.523E-06	1.604E-06	8.425E-07

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DIR	DISTANCE IN MILES									
	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.
N	1.018E-03	2.396E-04	1.057E-04	5.887E-05	3.730E-05	1.617E-05	7.219E-06	3.634E-06	1.897E-06	1.166E-06
NNE	5.717E-04	1.766E-04	6.445E-05	3.616E-05	2.381E-05	2.514E-05	6.653E-06	2.485E-06	1.298E-06	8.076E-07
NE	3.900E-04	1.135E-04	4.751E-05	2.866E-05	1.855E-05	2.036E-05	5.362E-06	2.002E-06	1.063E-06	6.636E-07
ENE	1.488E-04	6.103E-05	2.648E-05	1.352E-05	9.247E-06	1.158E-05	3.272E-06	1.268E-06	7.283E-07	4.556E-07
E	1.541E-04	7.194E-05	2.643E-05	1.571E-05	1.015E-05	1.275E-05	3.562E-06	1.379E-06	7.419E-07	5.045E-07
ESE	1.021E-04	9.486E-05	4.228E-05	2.296E-05	1.437E-05	1.293E-05	3.645E-06	1.427E-06	7.508E-07	4.641E-07
SE	3.219E-04	2.229E-04	8.274E-05	4.050E-05	2.504E-05	9.657E-06	3.346E-06	1.431E-06	8.115E-07	4.980E-07
SSE	5.093E-04	3.217E-04	1.244E-04	6.602E-05	8.826E-05	3.136E-05	7.979E-06	3.025E-06	1.559E-06	9.416E-07
S	1.112E-03	4.076E-04	1.159E-04	6.294E-05	6.014E-05	2.390E-05	5.999E-06	2.213E-06	1.123E-06	6.883E-07
SSW	1.545E-04	1.331E-04	6.346E-05	5.397E-05	3.487E-05	1.526E-05	3.863E-06	1.398E-06	7.113E-07	4.353E-07
SW	8.204E-05	3.376E-04	1.076E-04	5.164E-05	3.067E-05	1.362E-05	3.423E-06	1.266E-06	6.587E-07	4.071E-07
WSW	3.595E-05	4.019E-04	1.194E-04	5.428E-05	3.077E-05	1.158E-05	3.048E-06	1.087E-06	5.459E-07	3.312E-07
W	2.811E-04	3.485E-04	1.100E-04	4.954E-05	2.746E-05	9.571E-06	2.674E-06	9.966E-07	5.026E-07	3.052E-07
WNW	9.730E-05	5.196E-04	1.457E-04	7.213E-05	4.111E-05	1.574E-05	4.231E-06	1.578E-06	8.269E-07	5.113E-07
NW	4.714E-04	1.023E-03	2.627E-04	1.215E-04	6.955E-05	2.599E-05	7.791E-06	2.937E-06	1.568E-06	9.715E-07
NNW	7.091E-04	5.122E-04	2.572E-04	1.453E-04	8.575E-05	3.086E-05	8.057E-06	3.026E-06	1.588E-06	9.973E-07

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 1994

Parameter	Values Assigned	
	Individual	Population
Cooling flow rate (cfs) *	730.47; 961.99	730.47; 961.99
(Average daily value)		
Dilution factor	1	53.10; 51.49
Holding time:		
Fish	24 hr ***	168 hr ***
Drinking water	12 hr ***	22.4 hr **
Shoreline exposure	0 hr ***	22.4 hr **
Swimming	0 hr ***	22.4 hr **
Boating	0 hr ***	22.4 hr **

* First and Second quarter station data for 1994, 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.

REFERENCES

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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.

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