

PILGRIM NUCLEAR POWER STATION

Radioactive Effluent and Waste Disposal Report

including

Radiological Impact on Humans

January 1 through June 30, 1983

**BY: NUCLEAR MANAGEMENT SERVICES DEPARTMENT
ENVIRONMENTAL AND RADIOLOGICAL
HEALTH AND SAFETY GROUP**

Date: September 1, 1983

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT AND WASTE DISPOSAL REPORT
INCLUDING RADIOLOGICAL IMPACT ON HUMANS

JANUARY 1 THROUGH JUNE 30, 1983

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1. INTRODUCTION AND SUMMARY

This report is issued for the period January - June 1983 in accordance with NRC Regulatory Guide 1.21, "Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants" (Rev. 1). The information supplied includes actual effluent releases, radioactive waste and meteorological data; doses from liquid releases, doses from gaseous releases and direct gamma radiation doses.

2. EFFLUENT, WASTE DISPOSAL AND WIND DATA

Radioactive liquid and gaseous releases, wind speed data together with measurement errors and solid waste disposal information are given in Tables 1A, 1B, 1C, 2A, 2B, 3, 4A-1, 4A-2, and supplemental information section in the standard Regulatory Guide 1.21 format.

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

Supplemental Information
JANUARY - JUNE 1983

Facility Pilgrim Nuclear Power Station Licensee DPR-35

1. Regulatory Limits

- a. Fission and activation gases $\frac{Q_s}{0.25/\bar{E}} + \frac{Q_v}{0.10/\bar{E}} \leq 1$
- b. Iodines 2 Ci per quarter
- c. Particulates, half-lives > 8 days $13(1.8E4Q_s + 1.8E5Q_v) \leq 1$
- d. Liquid effluents: 10Ci per quarter

2. Maximum Permissible Concentration

Provide the MPC's used in determining allowable release rates or concentrations.

- a. Fission and activation gases } 10 CFR 20
b. Iodines } Appendix B
c. Particulates, half-lives > 8 days } Table II
d. Liquid effluents: H - 3 = 1×10^{-5} $\mu\text{Ci/ml}$; all rest, 10 CFR 20, Appendix B, Table II

3. Average Energy

Provide the average energy (\bar{E}) of the radionuclide mixture in releases of fission and activation gases, if applicable. $\bar{E} = \text{MeV}$
1st quarter, MS=0.78 & RBV=0.66; 2nd quarter, MS=0.49 & RBV=0.47

4. Measurements and Approximations of Total Radioactivity

Provide the methods used to measure or approximate the total radioactivity in effluents and the methods used to determine radionuclide composition.

- a. Fission and activation gases }
b. Iodines } GeLi
c. Particulates } Isotopic
d. Liquid effluents: } Analysis

5. Batch Releases

Provide the following information relating to batch releases of radioactive materials in liquid and gaseous effluents:

a. Liquid

1. Number of batch releases: 64
2. Total time period for batch releases: 103.47 hours
3. Maximum time period for a batch release: 3.42 hours
4. Average time period for batch releases: 1.62 hours
5. Minimum time period for a batch release: 0.42 hours
6. Average stream flow during periods of release of effluent into a flowing stream: $2.35E + 5 \text{ GPM}$

b. Gaseous (Not Applicable)

6. Abnormal Releases

- a. none
b.

TABLE 1A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
JANUARY - JUNE 1983

Unit	Quarter (1)	Quarter (2)	Est. Total Error, %
------	----------------	----------------	------------------------

A. Fission and activation gases

1. Total release	Ci	1.33E+4	3.41E+3	25
2. Average release rate for period	$\mu\text{Ci/sec}$	1.71E+3	4.34E+2	
3. Percent of Technical Specification limit	%	0.5400	0.089	

B. Iodines

1. Total iodine-131	Ci	6.62E-3	7.09E-3	25
2. Average release rate for period	$\mu\text{Ci/sec}$	8.51E-4	9.02E-4	
3. Percent of Technical Specification limit	%	0.331	0.355	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	3.39E-3	3.44E-3	30
2. Average release rate for period	$\mu\text{Ci/sec}$	4.36E-4	4.38E-4	
3. Percent of Technical Specification limit	%	0.045	0.052	
4. Gross alpha radioactivity	Ci	$\leq 3.24\text{E-}7$	$\leq 1.19\text{E-}6$	

D. Tritium

1. Total release	Ci	4.77E+1	6.80E0	35
2. Average release rate for period	$\mu\text{Ci/sec}$	6.13E0	8.65E-1	
3. Percent of Technical Specification limit	%	-	-	

TABLE 1B
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1983)
GASEOUS EFFLUENTS – ELEVATED RELEASE

JANUARY - JUNE 1983

CONTINUOUS MODE

BATCH MODE

Nuclides Released	Unit	Quarter	Quarter	Quarter	Quarter
		(1)	(2)		

1. fission gases

krypton-85	Ci	< 1.45E-3	< 1.82E-2		
krypton-85m	Ci	2.01E+3	5.43E+2		
krypton-87	Ci	1.44E+3	1.67E+2		
krypton-88	Ci	3.88E+3	7.60E+2		
xenon-133	Ci	3.76E+3	1.77E+3		
xenon-135	Ci	1.84E+3	5.01E+1		
xenon-135m	Ci	-	-		
xenon-138	Ci	-	-		
xenon-131m	Ci	-	-		
xenon-137	Ci	-	-		
xenon-133m	Ci	1.20E+2	1.04E+1		
Total for period	Ci	1.31E+4	3.30E+3		

2. Iodines

iodine-131	Ci	3.53E-3	4.10E-3		
iodine-133	Ci	1.58E-2	2.00E-2		
iodine-135	Ci	2.68E-2	1.90E-2		
Total for period	Ci	4.61E-2	4.31E-2		

3. Particulates

strontium-89	Ci	4.74E-4	6.38E-4		
strontium-90	Ci	4.39E-6	9.59E-6		
cesium-134	Ci	3.69E-7	3.94E-6		
cesium-137	Ci	1.64E-5	8.23E-5		
barium-lanthanum-140	Ci	1.55E-3	1.06E-3		
chromium-51	Ci	-	-		
manganese-54	Ci	6.16E-6	8.32E-6		
cobalt-58	Ci	-	4.28E-6		
iron-59	Ci	8.69E-7	-		
cobalt-60	Ci	3.60E-5	5.38E-5		
zinc-65	Ci	-	2.60E-6		
zirconium-niobium-95	Ci	-	-		
cerium-141	Ci	7.20E-6	1.72E-6		
cerium-144	Ci	-	3.44E-6		
ruthenium-103	Ci	-	-		
ruthenium-106	Ci	-	-		

TABLE 1C
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
GASEOUS EFFLUENTS - GROUND LEVEL RELEASE
JANUARY - JUNE 1983

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter	Quarter	Quarter	Quarter

(1) (2)

1. Fission gases

krypton-85	Ci	4.91E-6	2.57E-6		
krypton-85m	Ci	1.17E+1	6.10E0		
krypton-87	Ci	3.08E+1	1.44E+1		
krypton-88	Ci	3.31E+1	1.41E+1		
xenon-133	Ci	2.04E+1	1.70E+1		
xenon-135	Ci	7.17E+1	5.42E+1		
xenon-135m	Ci	-	-		
xenon-138	Ci	-	-		
Total for period	Ci	1.68E+2	1.06E+2		

2. Iodines

iodine-131	Ci	3.09E-3	2.99E-3		
iodine-133	Ci	1.96E-2	1.90E-2		
iodine-135	Ci	2.91E-2	2.71E-2		
Total for period	Ci	5.18E-2	4.91E-2		

3. Particulates

strontium-89	Ci	7.16E-4	5.82E-4		
strontium-90	Ci	1.27E-6	1.15E-6		
cesium-134	Ci	-	1.87E-5		
cesium-137	Ci	2.10E-5	1.59E-4		
barium-lanthanum-140	Ci	4.94E-4	3.95E-4		
manganese-54	Ci	1.50E-6	3.32E-5		
cobalt-58	Ci	-	2.56E-5		
iron-59	Ci	-	-		
cobalt-60	Ci	5.71E-5	3.53E-4		
zinc-65	Ci	-	-		
zirconium-niobium-95	Ci	-	-		
cerium-141	Ci	-	-		
ruthenium-103	Ci	-	-		
ruthenium-106	Ci	-	-		

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES
JANUARY - JUNE 1983

Unit	Quarter (1)	Quarter (2)	Est. Total Error, %
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A. Fission and activation products

1. Total release (not including tritium, noble gases, or alpha)	Ci	2.39E-2	2.41E-2	30
2. Average diluted concentration during period	$\mu\text{Ci/ml}$	1.96E-8	4.16E-9	
3. Percent of applicable limit	%	0.239	0.241	

B. Tritium

1. Total release	Ci	1.34E-3	1.37E-3	30
2. Average diluted concentration during period	$\mu\text{Ci/ml}$	1.10E-9	2.36E-10	
3. Percent of applicable limit	%	0.011	0.002	

C. Dissolved and entrained gases

1. Total release	Ci	3.24E-6	-	40
2. Average diluted concentration during period	$\mu\text{Ci/ml}$	2.66E-12	-	
3. Percent of applicable limit	%	-	-	

D. Gross alpha radioactivity

1. Total release	Ci	< 1.01E-5	< 3.25E-5	40
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E. Volume of waste released (prior to dilution)	liters	3.38E+4	7.49E+4	20
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F. Volume of dilution water used during period	liters	1.22E+9	5.80E+9	20
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TABLE 2B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)

LIQUID EFFLUENTS

JANUARY - JUNE - 1983

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter	Quarter	⁽¹⁾ Quarter	⁽²⁾ Quarter
strontium-89	Ci			1.07E-5	9.91E-6
strontium-90	Ci			4.14E-5	4.75E-5
cesium-134	Ci			3.44E-4	2.37E-4
cesium-137	Ci			3.85E-3	2.72E-3
iodine-131	Ci			3.41E-5	8.60E-6
cobalt-58	Ci			2.58E-4	5.53E-4
cobalt-60	Ci			8.73E-3	9.69E-3
iron-59	Ci			1.87E-5	9.33E-5
zinc-65	Ci			-	7.22E-5
manganese-54	Ci			5.29E-4	6.92E-4
chromium-51	Ci			5.15E-4	3.77E-4
zirconium-niobium-95	Ci			-	3.41E-6
molybdenum 99- technetium 99m	Ci			7.74E-6	5.53E-6
barium-lanthanum-140	Ci			5.30E-5	2.47E-5
cerium-141	Ci			7.00E-6	9.27E-6
iodine-133	Ci			4.86E-6	1.60E-6
cerium-144	Ci			-	-
silver-110m	Ci			-	7.53E-6
iron-55	Ci			6.75E-3	6.73E-3
unidentified	Ci			2.74E-3	2.85E-3
Total for period (above)	Ci			2.39E-2	2.41E-2
xenon-133	Ci			3.24E-6	-
xenon-135	Ci			-	-

TABLE 3

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1983)
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
JANUARY - JUNE, 1983

A. SOLID WASTE SHIPPED OFF SITE 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	72.78 545.688	N/A
b. Dry compressible waste, contaminated equipment, etc.	m ³ Ci	256.27 40.15671	N/A
c. Irradiated components, control rods, etc.	m ³ Ci	none	N/A
d. Other (Describe) Miscellaneous low-level waste	m ³ Ci	none	N/A

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

		%	E(Curies)
a. Spent Resin, Filter Sludges, Evaporator Bottoms, etc.	Co-60	26.828	146.39678
	Co-58	.693	3.78244
	Cs-137	.536	35.66608
	Cs-134	.783	4.27017
	Fe-55	55.881	303.29898
	Fe-59	.020	.11031
	I-131	.359	1.95829
	I-133	.150	.81750
	La-140	.080	.43924
	Ba-140	.072	.39555
	Sr-89	5.501	30.01818
	Sr-90	.139	.75918
	Tc-99m	.130	.70828
	Zn-65	.185	1.01203
	Mn-54	1.647	8.98995
	Zr-95	.001	.00590
	Cr-51	1.099	5.99884
	Ce-141	.009	.04766
	Xe-133	.024	.13210
	Sb-122	.054	.29280
	Y-91m	.003	.01455
	Mo-99	.085	.46548
	I-135	.012	.06518
	Na-24	.008	.04253
	TOTALS	100.000	546.68800

		%	E(Curies)
b. Dry Compressible Waste	Co-60	37.245	14.95628
Contaminated Equipment	Co-58	2.486	.99840
	Cs-137	3.650	1.46575
	Cs-134	.848	.34059
	Fe-55	3.985	1.60038
	Fe-59	.099	.03970
	I-131	1.742	.69943
	Ba-140	2.589	1.03972
	Sr-89	5.543	2.22578
	Sr-90	.118	.04720
	Zn-65	.956	.38397
	Mn-54	3.860	1.54994
	Cr-51	36.879	14.80951
	TOTAL	100.000	40.15671

c. N/A

d. N/A

3. SOLID WASTE DISPOSITION

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
34	Tractor-Trailer	Barnwell, S.C.

4. IRRADIATED FUEL SHIPMENTS (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
None	N/A	N/A

TABLE 4A-1

DISTRIBUTION OF WIND DIRECTIONS
AND SPEEDS FOR THE 33 FT. LEVEL
OF THE 220 FT. TOWER

220 FT TOWER - 33 FT EL
1/1/83 - 3/31/83
33.0 FT WIND DATA
STABILITY CLASS A-- DELTA T LESS THAN -1.9 DEG C PER 100 METERS
(CLASS FREQUENCY (PERCENT) = 9.15

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	9
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	1.9	0.0	5.8
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.5
3.6- 7.5	12	9	0	6	9	6	0	0	0	3	15	3	6	6	27	18	120
(1)	7.7	5.8	0.0	3.8	5.8	3.8	0.0	0.0	0.0	1.9	9.6	1.9	3.8	3.8	17.3	11.5	76.9
(2)	0.7	0.5	0.0	0.4	0.5	0.4	0.0	0.0	0.0	0.2	0.9	0.2	0.4	0.4	1.6	1.1	7.0
7.6-12.5	3	0	0	0	0	0	0	3	0	0	0	0	0	0	15	6	27
(1)	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	9.6	3.8	17.3
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.4	1.6
12.6-18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	15	9	0	6	9	6	0	3	0	6	15	6	6	6	45	24	156
(1)	9.6	5.8	0.0	3.8	5.8	3.8	0.0	1.9	0.0	3.8	9.6	3.8	3.8	3.8	28.8	15.4	100.0
(2)	0.9	0.5	0.0	0.4	0.5	0.4	0.0	0.2	0.0	0.9	0.9	0.4	0.4	0.4	2.6	1.4	9.2

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE- 156

CALM=WIND SPEED LESS THAN 1 JONPH

TABLE 4A-1 (Continued)

33.0 FT WIND DATA
 220 FT TOWER - 33 FT EL
 1/1/83 - 3/31/83
 STABILITY CLASS B-- DELTA T -1.9 TO -1.7 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 1.06

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7
(2)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3.6- 7.5	3	3	0	0	0	0	0	0	0	0	0	0	3	0	3	0	12
(1)	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	16.7	0.0	66.7
(2)	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.7
7.6-12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2
12.6-18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	3	6	0	0	0	0	0	0	0	0	0	0	3	3	3	0	18
(1)	16.7	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	16.7	16.7	0.0	100.0
(2)	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	1.1

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 18

CALM=WIND SPEED LESS THAN 1.0MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

1/1/83 - 3/31/83

STABILITY CLASS C-- DELTA T -1.6 TO -1.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 2.11

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
(2)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3.6- 7.5	0	3	0	0	3	0	0	0	0	0	3	6	9	0	3	3	30
(1)	0.0	8.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	8.3	16.7	25.0	0.0	8.3	8.3	83.3
(2)	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.0	0.2	0.2	1.8
7.6-12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.6-18.5	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	0	3	0	0	3	3	0	3	0	0	3	6	9	0	3	3	36
(1)	0.0	8.3	0.0	0.0	8.3	8.3	0.0	8.3	0.0	0.0	8.3	16.7	25.0	0.0	8.3	8.3	100.0
(2)	0.0	0.2	0.0	0.0	0.2	0.2	0.0	0.2	0.0	0.0	0.2	0.4	0.5	0.0	0.2	0.2	2.1

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 35

CALM=WIND SPEED LESS THAN 1.0MPH

TABLE 4A-1 (Continued)

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

1/1/83 - 3/31/83

CLASS FREQUENCY (PERCENT) = 29.23

STABILITY CLASS D-- DELTA T -1.4 TO -0.5 DEG C PER 100 METERS

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM-3.5	3	15	0	3	0	3	3	0	0	0	9	6	12	6	12	6	78
(1)	0.6	3.0	0.0	0.6	0.0	0.6	0.6	0.0	0.0	0.0	1.8	1.2	2.4	1.2	2.4	1.2	15.7
(2)	0.2	0.9	0.0	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.5	0.4	0.7	0.4	0.7	0.4	4.6
3.6-7.5	0	6	6	24	6	15	9	0	0	0	3	30	21	15	24	12	171
(1)	0.0	1.2	1.2	4.8	1.2	3.0	1.8	0.0	0.0	0.0	0.6	6.0	4.2	3.0	4.8	2.4	34.3
(2)	0.0	0.4	0.4	1.4	0.4	0.9	0.5	0.0	0.0	0.0	0.2	1.8	1.2	0.9	1.4	0.7	10.0
7.6-12.5	6	6	0	24	18	3	3	3	0	0	0	0	9	33	93	15	213
(1)	1.2	1.2	0.0	4.8	3.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	1.8	6.6	18.7	3.0	42.8
(2)	0.4	0.4	0.0	1.4	1.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.5	1.9	5.5	0.9	12.5
12.6-18.5	0	0	6	21	3	0	0	0	0	0	0	0	3	0	0	0	37
(1)	0.0	0.0	1.2	4.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	6.0
(2)	0.0	0.0	0.4	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	1.9
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	9	27	12	72	27	21	15	3	0	0	12	39	45	54	129	33	498
(1)	1.8	5.4	2.4	14.5	5.4	4.2	3.0	0.6	0.0	0.0	2.4	7.8	9.0	10.8	25.9	6.6	100.0
(2)	0.5	1.6	0.7	4.2	1.6	1.2	0.9	0.2	0.0	0.0	0.7	2.3	2.6	3.2	7.6	1.9	29.2

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 498

CALM=WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

1/1/83 - 3/31/83

STABILITY CLASS E-- DELTA T -0.4 TO +1.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 32.92

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	3	0	0	0	0	0	0	3	3	6	0	0	3	3	0	0	21
(1)	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.1	0.0	0.0	0.5	0.5	0.0	0.0	3.7
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.0	0.0	0.2	0.2	0.0	0.0	1.2
CALM- 3.5	3	9	0	6	9	0	3	3	12	15	27	33	21	3	0	0	144
(1)	0.5	1.6	0.0	1.1	1.6	0.0	0.5	0.5	2.1	2.7	4.8	5.9	3.7	0.5	0.0	0.0	25.7
(2)	0.2	0.5	0.0	0.4	0.5	0.0	0.2	0.2	0.7	0.9	1.6	1.9	1.2	0.2	0.0	0.0	8.5
3.6- 7.5	0	0	3	12	3	15	21	0	3	9	12	90	69	36	3	0	276
(1)	0.0	0.0	0.5	2.1	0.5	2.7	3.7	0.0	0.5	1.6	2.1	16.0	12.3	6.4	0.5	0.0	49.2
(2)	0.0	0.0	0.2	0.7	0.2	0.9	1.2	0.0	0.2	0.5	0.7	5.3	4.0	2.1	0.2	0.0	16.2
7.6-12.5	0	6	3	0	0	0	0	0	0	0	0	12	33	12	3	0	69
(1)	0.0	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.9	2.1	0.5	0.0	12.3
(2)	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.9	0.7	0.2	0.0	4.0
12.6-18.5	0	0	24	0	6	0	0	0	0	0	0	0	0	0	0	0	30
(1)	0.0	0.0	4.3	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
(2)	0.0	0.0	1.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
18.6-24.0	0	0	0	3	18	0	0	0	0	0	0	0	0	0	0	0	21
(1)	0.0	0.0	0.0	0.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
(2)	0.0	0.0	0.0	0.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	6	15	30	21	36	15	24	6	18	30	39	135	126	54	6	0	561
(1)	1.1	2.7	5.3	3.7	6.1	2.7	4.3	1.1	3.2	5.3	7.0	24.1	22.5	9.6	1.1	0.0	100.0
(2)	0.4	0.9	1.8	1.2	2.1	0.9	1.4	0.4	1.1	1.8	2.3	7.9	7.4	3.2	0.4	0.0	32.9

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 561

CALM-WIND SPEED LESS THAN 1.00MPH

TABLE 4A-1 (Continued)

33.0 FT WIND DATA
 220 FT TOWER - 33 FT EL
 1/1/83 - 3/31/83
 STABILITY CLASS F-- DELTA T 1.6 TO 4.0 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 15.49

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	0	0	33	3	0	0	0	0	36
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	1.1	0.0	0.0	0.0	0.0	13.6
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.2	0.0	0.0	0.0	0.0	2.1
3.6- 7.5	3	0	0	0	6	12	12	9	15	9	42	36	18	0	0	0	162
(1)	1.1	0.0	0.0	0.0	2.3	4.5	4.5	3.4	5.7	3.4	15.9	13.6	6.8	0.0	0.0	0.0	61.4
(2)	0.2	0.0	0.0	0.0	0.4	0.7	0.7	0.5	0.9	0.5	2.5	2.1	1.1	0.0	0.0	0.0	9.5
7.6-12.5	3	6	3	0	0	6	6	9	3	6	3	0	9	3	0	0	57
(1)	1.1	2.3	1.1	0.0	0.0	2.3	2.3	3.4	1.1	2.3	1.1	0.0	3.4	1.1	0.0	0.0	21.6
(2)	0.2	0.4	0.2	0.0	0.0	0.4	0.4	0.5	0.2	0.4	0.2	0.0	0.5	0.2	0.0	0.0	3.3
12.6-18.5	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
(2)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	2.3
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4
ALL SPEEDS	6	6	3	0	9	18	18	18	18	15	78	39	27	3	3	3	264
(1)	2.3	2.3	1.1	0.0	3.4	6.8	6.8	6.8	6.8	5.7	29.5	14.8	10.2	1.1	1.1	1.1	100.0
(2)	0.4	0.4	0.2	0.0	0.5	1.1	1.1	1.1	1.1	0.9	4.6	2.3	1.3	0.2	0.2	0.2	15.5

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 264

CALM-WIND SPEED LESS THAN 1.00MPH

33.0 FT WIND DATA
 220 FT TOWER - 33 FT EL
 1/1/83 - 3/31/83
 STABILITY CLASS G-- DELTA T GREATER THAN 4.0 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 10.04

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	3	0	0	0	0	0	0	0	0	6	12	9	3	3	0	76
(1)	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	7.0	5.3	1.8	1.8	0.0	21.1
(2)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.5	0.2	0.2	0.0	2.1
3.6- 7.5	9	0	6	9	0	27	6	0	3	0	0	6	6	3	6	6	87
(1)	5.3	0.0	3.5	5.3	0.0	15.8	3.5	0.0	1.8	0.0	0.0	3.5	3.5	1.8	3.5	3.5	50.9
(2)	0.5	0.0	0.4	0.5	0.0	1.6	0.4	0.0	0.2	0.0	0.0	0.4	0.4	0.2	0.4	0.4	5.1
7.6-12.5	3	3	3	0	0	6	0	9	3	0	0	0	0	0	0	9	36
(1)	1.8	1.8	1.8	0.0	0.0	3.5	0.0	5.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	5.3	21.1
(2)	0.2	0.2	0.2	0.0	0.0	0.4	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.1
12.6-18.5	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	9
(1)	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	5.3
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5
ALL SPEEDS	15	6	9	9	0	33	6	12	6	0	6	18	15	9	9	21	171
(1)	8.8	3.5	5.3	5.3	0.0	19.3	3.5	7.0	3.5	0.0	3.5	10.5	8.8	3.5	5.3	12.3	100.0
(2)	0.9	0.4	0.5	0.5	0.0	1.6	0.4	0.7	0.4	0.0	0.4	1.1	0.9	0.4	0.5	1.2	10.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 171

CALM=WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

1/1/83 - 3/31/83

STABILITY CLASS ALL-- ALL STABILITIES COMBINED

CLASS FREQUENCY (PERCENT) = 100.00

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	3	0	0	0	0	0	0	3	3	6	0	3	3	3	0	0	24
(1)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.0	0.2	0.2	0.2	0.0	0.0	1.4
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.0	0.2	0.2	0.2	0.0	0.0	1.4
CALM- 3.5	6	30	0	9	9	6	6	3	12	18	75	57	42	12	18	6	309
(1)	0.4	1.8	0.0	0.5	0.5	0.4	0.4	0.2	0.7	1.1	4.4	3.3	2.5	0.7	1.1	0.4	18.1
(2)	0.4	1.8	0.0	0.5	0.5	0.4	0.4	0.2	0.7	1.1	4.4	3.3	2.5	0.7	1.1	0.4	18.1
3.6- 7.5	27	21	15	51	27	75	48	9	21	21	75	171	132	60	66	39	858
(1)	1.6	1.2	0.9	3.0	1.6	4.4	2.8	0.5	1.2	1.2	4.4	10.0	7.7	3.5	3.9	2.3	50.4
(2)	1.6	1.2	0.9	3.0	1.6	4.4	2.8	0.5	1.2	1.2	4.4	10.0	7.7	3.5	3.9	2.3	50.4
7.6-12.5	15	21	9	24	18	15	9	24	6	6	3	12	51	51	111	30	405
(1)	0.9	1.2	0.5	1.4	1.1	0.9	0.5	1.4	0.4	0.4	0.2	0.7	3.0	3.0	6.5	1.8	23.8
(2)	0.9	1.2	0.5	1.4	1.1	0.9	0.5	1.4	0.4	0.4	0.2	0.7	3.0	3.0	6.5	1.8	23.8
12.6-18.5	0	0	30	21	12	0	0	6	0	0	0	0	3	0	0	0	72
(1)	0.0	0.0	1.8	1.2	0.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	4.2
(2)	0.0	0.0	1.8	1.2	0.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	4.2
18.6-24.0	0	0	0	3	18	0	0	0	0	0	0	0	0	0	0	0	21
(1)	0.0	0.0	0.0	0.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
(2)	0.0	0.0	0.0	0.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
OVER-24.0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	15
(1)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.9
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.9
ALL SPEEDS	54	72	54	108	84	96	63	45	42	51	153	243	231	126	198	84	1704
(1)	3.2	4.2	3.2	6.3	4.9	5.6	3.7	2.6	2.5	3.0	9.0	14.3	13.6	7.4	11.6	4.9	100.0
(2)	3.2	4.2	3.2	6.3	4.9	5.6	3.7	2.6	2.5	3.0	9.0	14.3	13.6	7.4	11.6	4.9	100.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE=1704

NUMBER OF HOURS IN THIS PERIOD= 2160

CALM=WIND SPEED LESS THAN 1.00MPH

99.9 PERCENT DATA RECOVERY

TABLE 4A-1 (Continued)

TABLE 4A-1 (Continued)

220 FT TOWER - 33 FT EL

4/1/83 - 6/30/83

33.0 FT WIND DATA

STABILITY CLASS A-- DELTA T LESS THAN -1.9 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 6.44

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	6
(1)	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.9
(2)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3
3.6- 7.5	3	6	9	3	15	9	6	6	9	3	3	3	3	0	0	0	78
(1)	2.4	4.9	7.3	2.4	12.2	7.3	4.9	4.9	7.3	2.4	2.4	2.4	2.4	0.0	0.0	0.0	63.4
(2)	0.2	0.3	0.5	0.2	0.8	0.5	0.3	0.3	0.5	0.2	0.2	0.2	0.2	0.0	0.0	0.0	4.1
7.6-12.5	6	0	9	0	3	3	3	0	0	12	3	0	0	0	0	0	39
(1)	4.9	0.0	7.3	0.0	2.4	2.4	2.4	0.0	0.0	9.8	2.4	0.0	0.0	0.0	0.0	0.0	31.7
(2)	0.3	0.0	0.5	0.0	0.2	0.2	0.2	0.0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	2.0
12.6-18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	9	6	18	6	18	12	9	6	9	15	6	3	3	0	0	3	123
(1)	7.3	4.9	14.6	4.9	14.6	9.8	7.3	4.9	7.3	12.2	4.9	2.4	2.4	0.0	0.0	2.4	100.0
(2)	0.5	0.3	0.9	0.3	0.9	0.6	0.5	0.3	0.5	0.8	0.3	0.2	0.2	0.0	0.0	0.2	6.4

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 123

CALM-WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

4/1/83 - 6/30/83

CLASS FREQUENCY (PERCENT) = 0.63

STABILITY CLASS B-- DELTA T -1.9 TO -1.7 DEG C PER 100 METERS

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	DIRECTION	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM																	
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5																	
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.6- 7.5																	
(1)	0.0	25.0	0.0	0.0	0.0	25.0	3	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0
(2)	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
7.6-12.5																	
(1)	0.0	0.0	0.0	0.0	0.0	0.0	3	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
12.6-18.5																	
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.6-24.0																	
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0																	
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS																	
(1)	0.0	25.0	0.0	0.0	0.0	25.0	3	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
(2)	0.0	0.2	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 12

CALM=WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS C-- DELTA T -1.6 TO -1.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 1.73

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	3
(1)	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	18.2
(2)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3
3.6- 7.5	0	0	0	0	3	6	0	0	0	0	0	0	0	0	3	0	12
(1)	0.0	0.0	0.0	0.0	9.1	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	36.4
(2)	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.6
7.6-12.5	0	0	6	0	0	3	0	0	0	0	6	0	0	0	0	0	15
(1)	0.0	0.0	18.2	0.0	0.0	9.1	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	45.5
(2)	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.8
12.6-18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	0	0	6	3	3	9	0	0	0	0	9	0	0	0	3	0	33
(1)	0.0	0.0	18.2	9.1	9.1	27.3	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	9.1	0.0	100.0
(2)	0.0	0.0	0.3	0.2	0.2	0.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2	0.0	1.7

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 33

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-1 (Continued)

33.0 FT WIND DATA
 220 FT TOWER - 33 FT EL
 4/1/83 - 6/30/83
 STABILITY CLASS D-- DELTA T -1.4 TO -0.5 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 13.81

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	3	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	9
(1)	1.1	0.0	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
(2)	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
3.6-7.5	3	6	12	3	27	18	3	12	3	21	6	18	3	9	12	6	162
(1)	1.1	2.3	4.5	1.1	10.2	6.8	1.1	4.5	1.1	8.0	2.3	6.8	1.1	3.4	4.5	2.3	61.4
(2)	0.2	0.3	0.6	0.2	1.4	0.9	0.2	0.6	0.2	1.1	0.3	0.9	0.2	0.5	0.6	0.3	8.5
7.6-12.5	3	0	0	0	0	12	6	0	3	42	6	3	0	0	0	0	75
(1)	1.1	0.0	0.0	0.0	0.0	4.5	2.3	0.0	1.1	15.9	2.3	1.1	0.0	0.0	0.0	0.0	28.4
(2)	0.2	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.2	2.2	0.3	0.2	0.0	0.0	0.0	0.0	3.9
12.6-18.5	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
(1)	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
(2)	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
18.6-24.0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
(2)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	9	6	33	6	27	30	9	6	63	23.9	12	21	3	9	12	6	264
(1)	3.4	2.3	12.5	2.3	10.2	11.4	3.4	2.3	23.9	4.5	4.5	8.0	1.1	3.4	4.5	2.3	100.0
(2)	0.5	0.3	1.7	0.3	1.4	1.6	0.5	0.6	3.3	0.3	0.3	1.1	0.2	0.5	0.3	0.3	13.8

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 264

CALM=WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS E-- DELTA T -0.4 TO +1.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 46.78

TABLE 4A-1 (Continued)

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	3	9
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	1.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.5
CALM- 3.5	3	6	6	3	15	9	6	12	0	15	15	6	3	3	6	3	111
(1)	0.3	0.7	0.7	0.3	1.7	1.0	0.7	1.3	0.0	1.7	1.7	0.7	0.3	0.3	0.7	0.3	12.4
(2)	0.2	0.3	0.3	0.2	0.8	0.5	0.3	0.6	0.0	0.8	0.8	0.3	0.2	0.2	0.3	0.2	5.8
3.6- 7.5	21	9	0	12	48	48	42	15	36	75	36	27	39	36	33	21	498
(1)	2.3	1.0	0.0	1.3	5.4	5.4	4.7	1.7	4.0	8.4	4.0	3.0	4.4	4.0	3.7	2.3	55.7
(2)	1.1	0.5	0.0	0.6	2.5	2.5	2.2	0.8	1.9	3.9	1.9	1.4	2.0	1.9	1.7	1.1	26.1
7.6-12.5	6	15	6	15	15	93	9	0	3	39	12	0	0	6	6	9	234
(1)	0.7	1.7	0.7	1.7	1.7	10.4	1.0	0.0	0.3	4.4	1.3	0.0	0.0	0.7	0.7	1.0	26.2
(2)	0.3	0.8	0.3	0.8	0.8	4.9	0.5	0.0	0.2	2.0	0.6	0.0	0.0	0.3	0.3	0.5	12.2
12.6-18.5	0	9	6	0	0	24	0	0	0	0	0	0	0	0	0	0	39
(1)	0.0	1.0	0.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
(2)	0.0	0.5	0.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
18.6-24.0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
(2)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	30	39	21	30	78	174	60	27	39	129	63	36	42	45	45	36	894
(1)	3.4	4.4	2.3	3.4	8.7	19.5	6.7	3.0	4.4	14.4	7.0	4.0	4.7	5.0	5.0	4.0	100.0
(2)	1.6	2.0	1.1	1.6	4.1	9.1	3.1	1.4	2.0	6.8	3.3	1.9	2.2	2.4	2.4	1.9	46.8

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 894

CALM=WIND SPEED LESS THAN 1.0MPH

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

4/1/83 - 6/30/83

CLASS FREQUENCY (PERCENT) = 24.49

STABILITY CLASS F-- DELTA T 1.6 TO 4.0 DEG C PER 100 METERS

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	6	0	3	0	0	0	0	0	6	0	0	3	0	0	18
(1)	0.0	0.0	1.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.6	0.0	0.0	3.8
(2)	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.9
CALM- 3.5	3	0	3	9	6	0	6	6	12	14	3	0	3	6	3	12	84
(1)	0.6	0.0	0.6	1.9	1.3	0.0	1.3	1.3	2.6	2.6	0.6	0.0	0.6	1.3	0.6	2.6	17.9
(2)	0.2	0.0	0.2	0.5	0.3	0.0	0.3	0.3	0.6	0.6	0.2	0.0	0.2	0.3	0.2	0.6	4.4
3.6- 7.5	6	3	3	6	0	6	3	15	12	12	12	27	75	6	15	12	213
(1)	1.3	0.6	0.6	1.3	0.0	1.3	0.6	3.2	2.6	2.6	2.6	5.8	16.0	1.3	3.2	2.6	45.5
(2)	0.3	0.2	0.2	0.3	0.0	0.3	0.2	0.8	0.6	0.6	0.6	1.4	3.9	0.3	0.8	0.6	11.1
7.6-12.5	6	6	9	0	0	9	3	15	6	6	51	0	3	0	0	15	129
(1)	1.3	1.3	1.9	0.0	0.0	1.9	0.6	3.2	1.3	1.3	10.9	0.0	0.6	0.0	0.0	3.2	27.6
(2)	0.3	0.3	0.5	0.0	0.0	0.5	0.2	0.8	0.3	0.3	2.7	0.0	0.2	0.0	0.0	0.8	8.8
12.6-18.5	0	0	0	0	0	3	6	9	0	3	3	0	0	0	0	0	24
(1)	0.0	0.0	0.0	0.0	0.0	0.6	1.3	1.9	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	5.1
(2)	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	1.3
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	15	9	21	15	9	18	18	45	30	33	75	27	81	15	18	39	468
(1)	3.2	1.9	4.5	3.2	1.9	3.8	3.8	9.6	6.4	7.1	16.0	5.8	17.3	3.2	3.8	8.3	100.0
(2)	0.8	0.5	1.1	0.3	0.5	0.9	0.9	2.4	1.6	1.7	3.9	1.4	4.2	0.8	0.9	2.0	24.5

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 468

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-1 (Continued)

220 FT TOWER - 33 FT EL
 4/1/83 - 6/30/83
 33.0 FT WIND DATA
 STABILITY CLASS G-- DELTA T GREATER THAN 4.0 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 6.12

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	3	3	0	3	0	0	0	3	0	0	0	0	0	12
(1)	0.0	0.0	0.0	2.6	2.6	0.0	2.6	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	10.3
(2)	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.6
CALM- 3.5	0	0	0	0	3	0	0	0	0	0	9	12	0	0	3	0	27
(1)	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	7.7	10.3	0.0	0.0	2.6	0.0	23.1
(2)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0	0.0	0.2	0.0	1.4
3.6- 7.5	6	3	0	3	0	0	0	0	3	0	9	15	0	0	0	0	39
(1)	5.1	2.6	0.0	2.6	0.0	0.0	0.0	0.0	2.6	0.0	7.7	12.8	0.0	0.0	0.0	0.0	33.3
(2)	0.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.5	0.8	0.0	0.0	0.0	0.0	2.0
7.6-12.5	0	0	0	0	0	0	0	0	6	12	18	0	0	0	0	0	36
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	10.3	15.4	0.0	0.0	0.0	0.0	0.0	30.8
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.9	0.0	0.0	0.0	0.0	0.0	1.9
12.6-18.5	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	2.6
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	6	3	0	6	6	0	3	0	9	12	42	27	0	0	3	0	117
(1)	5.1	2.6	0.0	5.1	5.1	0.0	2.6	0.0	7.7	10.3	35.9	23.1	0.0	0.0	2.6	0.0	100.0
(2)	0.3	0.2	0.0	0.3	0.3	0.0	0.2	0.0	0.5	0.6	2.2	1.4	0.0	0.0	0.2	0.0	6.1

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 117

CALM=WIND SPEED LESS THAN 1.0MPH

TABLE 4A-1 (Continued)

220 FT TOWER - 33 FT EL

33.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS ALL-- ALL STABILITIES COMBINED

CLASS FREQUENCY (PERCENT) = 100.00

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	6	3	6	0	6	0	0	0	9	3	0	3	0	3	39
(1)	0.0	0.0	0.3	0.2	0.3	0.0	0.3	0.0	0.0	0.0	0.5	0.2	0.0	0.2	0.0	0.2	2.0
(2)	0.0	0.0	0.3	0.2	0.3	0.0	0.3	0.0	0.0	0.0	0.5	0.2	0.0	0.2	0.0	0.2	2.0
CALM- 3.5	9	6	12	21	24	9	12	18	12	27	30	13	6	9	12	18	243
(1)	0.5	0.3	0.6	1.1	1.3	0.5	0.6	0.9	0.6	1.4	1.6	0.9	0.3	0.5	0.6	0.9	12.7
(2)	0.5	0.3	0.6	1.1	1.3	0.5	0.6	0.9	0.6	1.4	1.6	0.9	0.3	0.5	0.6	0.9	12.7
3.6- 7.5	39	30	24	27	93	90	57	48	63	111	66	90	120	51	63	39	1011
(1)	2.0	1.6	1.3	1.4	4.9	4.7	3.0	2.5	3.3	5.8	3.5	4.7	6.3	2.7	3.3	2.0	52.9
(2)	2.0	1.6	1.3	1.4	4.9	4.7	3.0	2.5	3.3	5.8	3.5	4.7	6.3	2.7	3.3	2.0	52.9
7.6-12.5	21	21	30	15	18	120	24	15	18	111	96	3	3	6	6	24	531
(1)	1.1	1.1	1.6	0.8	0.9	6.3	1.3	0.8	0.9	5.8	5.0	0.2	0.2	0.3	0.3	1.3	27.8
(2)	1.1	1.1	1.6	0.8	0.9	6.3	1.3	0.8	0.9	5.8	5.0	0.2	0.2	0.3	0.3	1.3	27.8
12.6-18.5	0	9	21	0	0	27	6	9	0	3	6	0	0	0	0	0	81
(1)	0.0	0.5	1.1	0.0	0.0	1.4	0.3	0.5	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	4.2
(2)	0.0	0.5	1.1	0.0	0.0	1.4	0.3	0.5	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	4.2
18.6-24.0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
(2)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	69	66	99	66	141	246	105	90	93	252	207	114	129	69	81	84	1911
(1)	3.6	3.5	5.2	3.5	7.4	12.9	5.5	4.7	4.9	13.2	10.8	6.0	6.8	3.6	4.2	4.4	100.0
(2)	3.6	3.5	5.2	3.5	7.4	12.9	5.5	4.7	4.9	13.2	10.8	6.0	6.8	3.6	4.2	4.4	100.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE=1911

NUMBER OF HOURS IN THIS PERIOD= 2184

CALM=WIND SPEED LESS THAN 1.00MPH

87.5 PERCENT DATA RECOVERY

TABLE 4A-2

DISTRIBUTION OF WIND DIRECTIONS
AND SPEEDS FOR THE 220 FT. LEVEL
OF THE 220 FT. TOWER

220.0 FT WIND DATA
220 FT TOWER - 220 FT EL
1/1/83 - 3/31/83
STABILITY CLASS A-- DELTA T LESS THAN -1.9 DEG C PER 100 METERS
CLASS FREQUENCY (PERCENT) = 9.15

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	3	21
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	3.8	13.5
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.4	1.2
CALM- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
3.6- 7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.6-12.5	9	6	0	6	6	6	0	0	0	0	0	0	3	3	9	9	57
(1)	5.8	3.8	0.0	3.8	3.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	5.8	5.8	39.5
(2)	0.5	0.4	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.3	3.3
12.6-18.5	6	0	0	0	3	0	0	0	0	0	9	15	3	0	12	18	66
(1)	3.8	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	5.8	9.6	1.9	0.0	7.7	11.5	42.3
(2)	0.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	3.5	0.9	0.2	0.0	0.7	1.1	3.9
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
OVER-24.0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
ALL SPEEDS	15	6	0	6	9	6	0	3	0	0	9	15	6	3	36	42	156
(1)	9.6	3.8	0.0	3.8	5.8	3.8	0.0	1.9	0.0	0.0	5.3	9.6	3.8	1.9	23.1	26.9	100.0
(2)	0.9	0.4	0.0	0.4	0.5	0.4	0.0	0.2	0.0	0.0	0.5	0.9	0.4	0.2	2.1	2.5	9.2

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 156

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 1/1/83 - 3/31/83
 STABILITY CLASS B-- DELTA T -1.9 TO -1.7 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 1.06

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.6- 7.5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7
(2)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
7.6-12.5	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
(1)	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	33.3
(2)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4
12.6-18.5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	9
(1)	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	16.7	50.0
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5
18.6-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	3	6	0	0	0	0	0	0	0	0	0	0	3	0	3	3	18
(1)	16.7	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	16.7	16.7	100.0
(2)	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2	1.1

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 18

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 1/1/83 - 3/31/83
 STABILITY CLASS C-- DELTA T -1.6 TO -1.5 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 2.11

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM (1) (2)	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0
CALM- 3.5 (1) (2)	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0
3.6- 7.5 (1) (2)	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	6 16.7 0.4
7.6-12.5 (1) (2)	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	12 33.3 0.7	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	21 58.3 1.2
12.6-18.5 (1) (2)	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	6 16.7 0.4
18.6-24.0 (1) (2)	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0
OVER-24.0 (1) (2)	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2
ALL SPEEDS (1) (2)	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	0 0.0 0.0	6 16.7 0.4	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	3 8.3 0.2	15 41.7 0.9	0 0.0 0.0	3 8.3 0.2	3 8.3 0.2	36 100.0 2.1

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 36

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220.0 FT WIND DATA		220 FT TOWER - 220 FT EL														1/1/83 - 3/31/83		CLASS FREQUENCY (PERCENT) = 29.23	
STABILITY CLASS D-- DELTA T -1.4 TO -0.5 DEG C PER 100 METERS		WIND DISTRIBUTION SUMMARY																	
SPEED(MPH)		DIRECTION																	
		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	
-CALM		3	0	0	0	0	0	0	0	0	0	0	0	0	0	84	18	103	
(1)		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9	3.6	21.1	
(2)		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	1.1	6.2	
CALM-3.5		3	0	0	0	0	3	0	0	0	0	3	0	0	0	0	3	12	
(1)		0.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.6	2.4	
(2)		0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.7	
3.6-7.5		6	6	3	9	3	0	9	0	0	0	0	0	6	0	6	9	60	
(1)		1.2	1.2	0.6	1.8	0.6	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.2	1.8	12.0	
(2)		0.4	0.4	0.2	0.5	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.5	3.5	
7.6-12.5		0	12	6	9	3	0	3	3	0	0	18	27	3	3	6	18	117	
(1)		0.0	2.4	1.2	1.8	1.2	0.0	0.6	0.6	0.0	0.6	3.6	5.4	0.6	0.6	1.2	3.6	23.5	
(2)		0.0	0.7	0.4	0.5	0.4	0.0	0.2	0.2	0.0	0.2	1.1	1.6	0.2	0.2	0.4	1.1	6.9	
12.6-18.5		0	6	3	12	3	0	12	0	0	0	3	3	3	21	18	9	90	
(1)		0.0	1.2	0.6	2.4	0.6	0.0	2.4	0.0	0.0	0.0	0.6	0.6	0.6	4.2	3.6	1.8	18.1	
(2)		0.0	0.4	0.2	0.7	0.2	0.0	0.7	0.0	0.0	0.0	0.2	0.2	0.2	1.2	1.1	0.5	5.3	
18.6-24.0		6	6	0	12	3	0	0	0	0	0	0	0	0	3	15	12	60	
(1)		1.2	1.2	0.0	2.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.0	2.4	12.0	
(2)		0.4	0.4	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.7	3.5	
OVER-24.0		0	0	15	9	15	0	0	0	3	0	0	0	0	0	0	6	54	
(1)		0.0	0.0	3.0	1.8	3.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	10.8	
(2)		0.0	0.0	0.9	0.5	0.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.2	
ALL SPEEDS		18	30	27	51	30	3	24	3	0	3	24	39	3	33	129	75	498	
(1)		3.6	6.0	5.4	10.2	6.0	0.6	4.8	0.6	0.0	0.6	4.8	7.8	0.6	6.6	25.9	15.1	106.6	
(2)		1.1	1.8	1.6	3.0	1.8	0.2	1.4	0.2	0.0	0.2	1.4	2.3	0.2	1.9	7.6	4.4	29.2	
(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE																			
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD																			

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 498

CALM=WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

1/1/83 - 3/31/83

STABILITY CLASS E-- DELTA T -0.4 TO +1.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 32.92

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.5
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
CALM- 3.5	0	3	6	6	0	3	0	3	0	3	0	0	0	0	0	0	24
(1)	0.0	0.5	1.1	1.1	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	4.3
(2)	0.0	0.2	0.4	0.4	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4
3.6- 7.5	0	12	0	9	9	0	0	0	3	3	3	0	3	3	0	0	45
(1)	0.0	2.1	0.0	1.6	1.6	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.5	0.5	0.0	0.0	8.0
(2)	0.0	0.7	0.0	0.5	0.5	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.2	0.0	0.0	2.6
7.6-12.5	0	0	9	0	9	0	27	3	21	3	3	15	12	18	15	3	138
(1)	0.0	0.0	1.6	0.0	1.6	0.0	4.8	0.5	3.7	0.5	0.5	2.7	2.1	3.2	2.7	0.5	24.6
(2)	0.0	0.0	0.5	0.0	0.5	0.0	1.6	0.2	1.2	0.2	0.2	0.9	0.7	1.1	0.9	0.2	8.1
12.6-18.5	0	0	0	0	0	6	6	0	0	0	0	48	69	72	24	3	228
(1)	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.0	8.6	12.3	12.8	4.3	0.5	40.6
(2)	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	2.8	4.0	4.2	1.4	0.2	13.4
18.6-24.0	0	3	0	3	3	0	0	0	0	0	0	6	15	30	6	0	66
(1)	0.0	0.5	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.7	5.3	1.1	0.0	11.8
(2)	0.0	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.9	1.8	0.4	0.0	3.9
OVER-24.0	0	6	24	0	21	0	0	0	0	0	0	0	0	6	0	0	57
(1)	0.0	1.1	4.3	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	10.2
(2)	0.0	0.4	1.4	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	3.3
ALL SPEEDS	0	24	39	18	42	9	33	6	24	9	6	72	97	129	45	6	561
(1)	0.0	4.3	7.0	3.2	7.5	1.6	5.9	1.1	4.3	1.6	1.1	12.8	17.6	23.0	8.0	1.1	100.0
(2)	0.0	1.4	2.3	1.1	2.5	0.5	1.9	0.4	1.4	0.5	0.4	4.2	5.8	7.6	2.6	0.4	32.9

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 561

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

1/1/83 - 3/31/83

STABILITY CLASS F-- DELTA T 1.6 TO 4.0 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 15.49

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	6	6	0	3	0	0	0	0	15
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	0.0	1.1	0.0	0.0	0.0	0.0	5.7
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.9
3.6- 7.5	0	0	0	0	0	0	0	0	0	3	0	9	3	0	0	0	15
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	3.4	1.1	0.0	0.0	0.0	5.7
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.5	0.2	0.0	0.0	0.0	0.9
7.6-12.5	0	0	0	0	0	0	3	0	0	6	6	9	9	9	0	0	42
(1)	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	2.3	2.3	3.4	3.4	3.4	0.0	0.0	15.9
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.4	0.5	0.5	0.5	0.0	0.0	2.5
12.6-18.5	0	0	0	0	3	12	6	15	3	12	9	33	15	15	0	0	123
(1)	0.0	0.0	0.0	0.0	1.1	4.5	2.3	5.7	1.1	4.5	3.4	12.5	5.7	5.7	0.0	0.0	46.6
(2)	0.0	0.0	0.0	0.0	0.2	0.7	0.4	0.9	0.2	0.7	0.5	1.9	0.9	0.9	0.0	0.0	7.2
18.6-24.0	6	3	0	0	0	3	0	9	0	0	0	12	0	6	0	3	42
(1)	2.3	1.1	0.0	0.0	0.0	1.1	0.0	3.4	0.0	0.0	0.0	4.5	0.0	2.3	0.0	1.1	15.9
(2)	0.4	0.2	0.0	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.4	0.0	0.2	2.5
OVER-24.0	0	3	3	0	6	0	0	6	0	0	0	0	0	6	0	3	27
(1)	0.0	1.1	1.1	0.0	2.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.1	10.2
(2)	0.0	0.2	0.2	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2	1.6
ALL SPEEDS	6	6	3	0	9	15	9	30	9	27	15	66	27	36	0	6	264
(1)	2.3	2.3	1.1	0.0	3.4	5.7	3.4	11.4	3.4	10.2	5.7	25.0	10.2	13.6	0.0	2.3	100.0
(2)	0.4	0.4	0.2	0.0	0.5	0.9	0.5	1.8	0.5	1.6	0.9	3.9	1.6	2.1	0.0	0.4	15.5

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 264

CALM-WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 1/1/83 - 3/31/83
 STABILITY CLASS G--- DELTA T GREATER THAN 4.0 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 10.04

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.6- 7.5	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	6
(1)	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	3.5
(2)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4
7.6-12.5	0	3	3	0	0	12	0	0	0	0	6	6	12	6	6	0	54
(1)	0.0	1.8	1.8	0.0	0.0	7.0	0.0	0.0	0.0	0.0	3.5	3.5	7.0	3.5	3.5	0.0	31.6
(2)	0.0	0.2	0.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.4	0.4	0.0	3.2
12.6-18.5	6	3	3	3	0	12	6	0	3	0	0	3	0	3	6	6	54
(1)	3.5	1.8	1.8	1.8	0.0	7.0	3.5	0.0	1.8	0.0	0.0	1.8	0.0	1.8	3.5	3.5	31.6
(2)	0.4	0.2	0.2	0.2	0.0	0.7	0.4	0.0	0.2	0.0	0.0	0.2	0.0	0.2	0.4	0.4	3.2
18.6-24.0	6	6	0	0	0	3	6	0	3	0	0	0	0	0	0	9	33
(1)	3.5	3.5	0.0	0.0	0.0	1.8	3.5	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	5.3	19.3
(2)	0.4	0.4	0.0	0.0	0.0	0.2	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.9
OVER-24.0	9	0	0	0	0	0	0	6	6	0	0	0	0	0	0	3	24
(1)	5.3	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	1.8	14.0
(2)	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4
ALL SPEEDS	21	12	6	3	3	27	12	6	12	0	6	9	12	9	15	18	171
(1)	12.3	7.0	3.5	1.8	1.8	15.8	7.0	3.5	7.0	0.0	3.5	5.3	7.0	5.3	8.8	10.5	100.0
(2)	1.2	0.7	0.4	0.2	0.2	1.6	0.7	0.4	0.7	0.0	0.4	0.5	0.7	0.5	0.9	1.1	10.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 171

CALM=WIND SPEED LESS THAN 1.0MPH

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

1/1/83 - 3/31/83

STABILITY CLASS ALL-- ALL STABILITIES COMBINED

CLASS FREQUENCY (PERCENT) = 100.00

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	3	0	0	0	0	0	0	0	0	0	0	3	0	0	99	24	129
(1)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	5.8	1.4	7.6
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	5.8	1.4	7.6
CALM- 3.5	3	3	6	6	0	6	0	3	6	9	0	6	0	0	0	6	54
(1)	0.2	0.2	0.4	0.4	0.0	0.4	0.0	0.2	0.4	0.5	0.0	0.4	0.0	0.0	0.0	0.4	3.2
(2)	0.2	0.2	0.4	0.4	0.0	0.4	0.0	0.2	0.4	0.5	0.0	0.4	0.0	0.0	0.0	0.4	3.2
3.6- 7.5	6	24	3	18	15	0	9	6	3	6	3	9	12	3	9	9	135
(1)	0.4	1.4	0.2	1.1	0.9	0.0	0.5	0.4	0.2	0.4	0.2	0.5	0.7	0.2	0.5	0.5	7.9
(2)	0.4	1.4	0.2	1.1	0.9	0.0	0.5	0.4	0.2	0.4	0.2	0.5	0.7	0.2	0.5	0.5	7.9
7.6-12.5	9	24	18	15	21	21	33	9	21	12	15	51	78	39	39	30	435
(1)	0.5	1.4	1.1	0.9	1.2	1.2	1.9	0.5	1.2	0.7	0.9	3.0	4.6	2.3	2.3	1.8	25.5
(2)	0.5	1.4	1.1	0.9	1.2	1.2	1.9	0.5	1.2	0.7	0.9	3.0	4.6	2.3	2.3	1.8	25.5
12.6-18.5	15	9	6	15	9	30	30	15	6	12	18	102	93	111	63	42	576
(1)	0.9	0.5	0.4	0.9	0.5	1.8	1.8	0.9	0.4	0.7	1.1	6.0	5.5	6.5	3.7	2.5	33.8
(2)	0.9	0.5	0.4	0.9	0.5	1.8	1.8	0.9	0.4	0.7	1.1	6.0	5.5	6.5	3.7	2.5	33.8
18.6-24.0	18	18	0	15	6	6	6	9	3	0	0	18	18	39	21	30	207
(1)	1.1	1.1	0.0	0.9	0.4	0.4	0.4	0.5	0.2	0.0	0.0	1.1	1.1	2.3	1.2	1.8	12.1
(2)	1.1	1.1	0.0	0.9	0.4	0.4	0.4	0.5	0.2	0.0	0.0	1.1	1.1	2.3	1.2	1.8	12.1
OVER-24.0	9	9	42	9	42	0	0	21	6	0	0	0	0	18	0	12	168
(1)	0.5	0.5	2.5	0.5	2.5	0.0	0.0	1.2	0.4	0.0	0.0	0.0	0.0	1.1	0.0	0.7	9.9
(2)	0.5	0.5	2.5	0.5	2.5	0.0	0.0	1.2	0.4	0.0	0.0	0.0	0.0	1.1	0.0	0.7	9.9
ALL SPEEDS	63	87	75	78	93	63	78	63	45	39	36	189	201	210	231	153	1704
(1)	3.7	5.1	4.4	4.6	5.5	3.7	4.6	3.7	2.6	2.3	2.1	11.1	11.8	12.3	13.6	9.0	100.0
(2)	3.7	5.1	4.4	4.6	5.5	3.7	4.6	3.7	2.6	2.3	2.1	11.1	11.8	12.3	13.6	9.0	100.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE=1704

NUMBER OF HOURS IN THIS PERIOD= 2160

73.9 PERCENT DATA RECOVERY

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 4/1/83 - 6/30/83
 STABILITY CLASS A-- DELTA T LESS THAN -1.9 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 6.44

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM																	
(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM-																	
(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.4
3.6-																	
(1)	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(2)	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
7.6-																	
(1)	0	6	3	0	6	3	12	0	6	0	0	0	0	0	0	0	36
(2)	0.0	4.9	2.4	0.0	4.9	2.4	9.8	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3
12.6-																	
(1)	9	3	0	0	12	3	0	6	15	6	3	3	3	0	0	3	66
(2)	7.3	2.4	0.0	0.0	9.8	2.4	0.0	4.9	12.2	4.9	2.4	2.4	2.4	0.0	0.0	2.4	53.7
18.6-																	
(1)	0	9	0	0	0	0	3	0	0	0	0	0	0	0	0	0	15
(2)	0.0	7.3	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2
OVER-																	
(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS																	
(1)	9	18	6	0	18	6	15	6	21	6	3	3	3	3	0	6	123
(2)	7.3	14.6	4.9	0.0	14.6	4.9	12.2	4.9	17.1	4.9	2.4	2.4	2.4	2.4	0.0	4.9	100.0
	0.5	0.9	0.3	0.0	0.9	0.3	0.8	0.3	1.1	0.3	0.2	0.2	0.2	0.2	0.0	0.3	6.4

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 123

CALM-WIND SPEED LESS THAN 1.00MPH

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 4/1/83 - 6/30/83
 STABILITY CLASS B--- DELTA T -1.9 TO -1.7 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 0.63

WIND DISTRIBUTION SUMMARY:

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.6- 7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.6-12.5	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
(2)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
12.6-18.5	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	6
(1)	25.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
(2)	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
18.6-24.0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	3	0	0	0	3	0	6	0	0	0	0	0	0	0	0	0	12
(1)	25.0	0.0	0.0	0.0	25.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
(2)	0.2	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 12

CALM=WIND SPEED LESS THAN 1.00MPH

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 4/1/83 - 6/30/83
 STABILITY CLASS C--- DELTA T -1.6 TO -1.5 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 1.73

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
(1)	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
(2)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3.6- 7.5	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	9.1
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
7.6-12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	9
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	27.3
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3
12.6-18.5	0	6	0	0	3	3	0	0	0	3	0	0	0	0	0	0	15
(1)	0.0	18.2	0.0	0.0	9.1	9.1	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	45.5
(2)	0.0	0.3	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8
18.6-24.0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	9.1
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2
OVER-24.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL SPEEDS	0	6	3	0	9	3	0	0	0	6	3	0	0	3	0	0	33
(1)	0.0	18.2	9.1	0.0	27.3	9.1	0.0	0.0	0.0	18.2	9.1	0.0	0.0	9.1	0.0	0.0	100.0
(2)	0.0	0.3	0.2	0.0	0.5	0.2	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.2	0.0	0.0	1.7

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 33

CALM=WIND SPEED LESS THAN 1.0MPH

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS D-- DELTA T -1.4 TO -0.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 13.81

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6
(1)	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
(2)	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
3.6- 7.5	6	3	0	6	12	6	0	3	0	0	3	0	0	0	0	0	39
(1)	2.3	1.1	0.0	2.3	4.5	2.3	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	14.8
(2)	0.3	0.2	0.0	0.3	0.6	0.3	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.0
7.6-12.5	0	3	6	0	15	0	3	0	3	9	6	0	3	9	3	6	66
(1)	0.0	1.1	2.3	0.0	5.7	0.0	1.1	0.0	1.1	3.4	2.3	0.0	1.1	3.4	1.1	2.3	25.0
(2)	0.0	0.2	0.3	0.0	0.8	0.0	0.2	0.0	0.2	0.5	0.3	0.0	0.2	0.5	0.2	0.3	3.5
12.6-18.5	0	6	0	0	0	15	6	6	27	33	6	12	0	12	0	0	123
(1)	0.0	2.3	0.0	0.0	0.0	5.7	2.3	2.3	10.2	12.5	2.3	4.5	0.0	4.5	0.0	0.0	46.6
(2)	0.0	0.3	0.0	0.0	0.0	0.8	0.3	0.3	1.4	1.7	0.3	0.6	0.0	0.6	0.0	0.0	6.4
18.6-24.0	0	3	0	0	0	3	3	0	0	3	0	0	0	0	0	3	15
(1)	0.0	1.1	0.0	0.0	0.0	1.1	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.1	5.7
(2)	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.8
OVER-24.0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
(1)	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
(2)	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
ALL SPEEDS	9	15	21	9	27	24	12	9	30	45	15	12	3	21	3	9	264
(1)	3.4	5.7	8.0	3.4	10.2	9.1	4.5	3.4	11.4	17.0	5.7	4.5	1.1	8.0	1.1	3.4	100.0
(2)	0.5	0.8	1.1	0.5	1.4	1.3	0.6	0.5	1.6	2.4	0.8	0.6	0.2	1.1	0.2	0.5	13.8

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 264

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS E-- DELTA T -0.4 TO +1.5 DEG C PER 100 METERS

CLASS FREQUENCY (PERCENT) = 46.78

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	6	6	3	0	3	0	0	0	0	3	0	0	0	0	3	0	24
(1)	0.7	0.7	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	2.7
(2)	0.3	0.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.3
3.6- 7.5	0	3	0	18	3	9	12	6	0	3	15	6	0	0	0	0	75
(1)	0.0	0.3	0.0	2.0	0.3	1.0	1.3	0.7	0.0	0.3	1.7	0.7	0.0	0.0	0.0	0.0	8.4
(2)	0.0	0.2	0.0	0.9	0.2	0.5	0.6	0.3	0.0	0.2	0.8	0.3	0.0	0.0	0.0	0.0	3.9
7.6-12.5	6	6	0	12	18	12	21	6	51	18	33	12	18	6	3	0	222
(1)	0.7	0.7	0.0	1.3	2.0	1.3	2.3	0.7	5.7	2.0	3.7	1.3	2.0	0.7	0.3	0.0	24.8
(2)	0.3	0.3	0.0	0.6	0.9	0.6	1.1	0.3	2.7	0.9	1.7	0.6	0.9	0.3	0.2	0.0	11.6
12.6-18.5	9	6	3	9	21	45	21	12	24	48	9	9	12	36	21	21	306
(1)	1.0	0.7	0.3	1.0	2.3	5.0	2.3	1.3	2.7	5.4	1.0	1.0	1.3	4.0	2.3	2.3	34.2
(2)	0.5	0.3	0.2	0.5	1.1	2.4	1.1	0.6	1.3	2.5	0.5	0.5	0.6	1.9	1.1	1.1	16.0
18.6-24.0	9	3	6	0	42	30	3	3	0	39	0	0	0	21	9	21	186
(1)	1.0	0.3	0.7	0.0	4.7	3.4	0.3	0.3	0.0	4.4	0.0	0.0	0.0	2.3	1.0	2.3	20.8
(2)	0.5	0.2	0.3	0.0	2.2	1.6	0.2	0.2	0.0	2.0	0.0	0.0	0.0	1.1	0.5	1.1	9.7
OVER-24.0	15	9	3	0	24	24	0	0	0	3	0	0	0	0	0	3	81
(1)	1.7	1.0	0.3	0.0	2.7	2.7	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	9.1
(2)	0.8	0.5	0.2	0.0	1.3	1.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	4.2
ALL SPEEDS	45	33	15	39	111	120	57	27	75	114	57	27	30	63	36	45	894
(1)	5.0	3.7	1.7	4.4	12.4	13.4	6.4	3.0	8.4	12.8	6.4	3.0	3.4	7.0	4.0	5.0	100.0
(2)	2.4	1.7	0.8	2.0	5.8	6.3	3.0	1.4	3.9	6.0	3.0	1.4	1.6	3.3	1.9	2.4	46.6

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 894

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS F-- DELTA T 1.6 TO 4.0 DEG C PER 100METERS

CLASS FREQUENCY (PERCENT) = 24.49

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	6
(1)	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
(2)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
CALM- 3.5	0	0	0	0	0	0	6	3	0	0	3	0	0	0	0	0	12
(1)	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	2.6
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.6
3.6- 7.5	3	3	3	9	6	0	3	6	9	0	6	0	0	0	0	0	48
(1)	0.6	0.6	0.6	1.9	1.3	0.0	0.6	1.3	1.9	0.0	1.3	0.0	0.0	0.0	0.0	0.0	10.3
(2)	0.2	0.2	0.2	0.5	0.3	0.0	0.2	0.3	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.5
7.6-12.5	6	0	0	3	3	9	0	9	15	0	6	0	6	3	3	12	75
(1)	1.3	0.0	0.0	0.6	0.6	1.9	0.0	1.9	3.2	0.0	1.3	0.0	1.3	0.6	0.6	2.6	16.0
(2)	0.3	0.0	0.0	0.2	0.2	0.5	0.0	0.5	0.8	0.0	0.3	0.0	0.3	0.2	0.2	0.6	3.9
12.6-18.5	0	9	0	0	0	0	9	3	6	12	6	18	30	39	12	6	150
(1)	0.0	1.9	0.0	0.0	0.0	0.0	1.9	0.6	1.3	2.6	1.3	3.8	6.4	8.3	2.6	1.3	32.1
(2)	0.0	0.5	0.0	0.0	0.0	0.0	0.5	0.2	0.3	0.6	0.3	0.9	1.6	2.0	0.6	0.3	7.8
18.6-24.0	9	3	6	0	0	3	9	12	6	12	9	3	3	3	9	15	102
(1)	1.9	0.6	1.3	0.0	0.0	0.6	1.9	2.6	1.3	2.6	1.9	0.6	0.6	0.6	1.9	3.2	21.8
(2)	0.5	0.2	0.3	0.0	0.0	0.2	0.5	0.6	0.3	0.6	0.5	0.2	0.2	0.2	0.5	0.8	5.3
OVER-24.0	0	0	0	0	0	12	15	6	0	33	6	0	0	0	0	3	75
(1)	0.0	0.0	0.0	0.0	0.0	2.6	3.2	1.3	0.0	7.1	1.3	0.0	0.0	0.0	0.0	0.6	16.0
(2)	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.3	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.2	3.9
ALL SPEEDS	18	15	9	12	12	24	42	42	36	57	36	21	39	45	24	36	468
(1)	3.8	3.2	1.9	2.6	2.6	5.1	9.0	9.0	7.7	12.2	7.7	4.5	8.3	9.6	5.1	7.7	100.0
(2)	0.9	0.8	0.5	0.6	0.6	1.3	2.2	2.2	1.9	3.0	1.9	1.1	2.0	2.4	1.3	1.9	24.5

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 468

CALM=WIND SPEED LESS THAN 1.00MPH

220.0 FT WIND DATA
 220 FT TOWER - 220 FT EL
 4/1/83 - 6/30/83
 STABILITY CLASS G-- DELTA T GREATER THAN 4.0 DEG C PER 100 METERS
 CLASS FREQUENCY (PERCENT) = 6.12

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
-CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CALM- 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.6- 7.5	0	0	0	0	0	0	3	0	0	0	0	3	6	9	0	0	21
(1)	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	2.6	5.1	7.7	0.0	0.0	17.9
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.0	0.0	1.1
7.6-12.5	0	0	0	0	0	3	0	3	3	0	0	6	5.1	5.1	3	3	33
(1)	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6	2.6	0.0	0.0	5.1	5.1	5.1	2.6	2.6	28.2
(2)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2	0.0	0.0	0.3	0.3	0.3	0.2	0.2	1.7
12.6-18.5	3	3	0	3	0	0	0	3	3	6	3	3	2.6	0	0	0	30
(1)	2.6	2.6	0.0	2.6	0.0	0.0	0.0	2.6	2.6	5.1	2.6	2.6	6.0	0.0	0.0	0.0	25.6
(2)	0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.0	1.6
18.6-24.0	0	0	0	0	0	0	0	3	0	12	0	0	0	0	0	0	15
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0	12.9
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.8
OVER-24.0	0	0	0	0	0	0	0	0	0	15	3	0	0	0	0	0	18
(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8	2.6	0.0	0.0	0.0	0.0	0.0	15.4
(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.9
ALL SPEEDS	3	3	0	3	0	3	3	9	6	33	6	12	15	15	3	3	117
(1)	2.6	2.6	0.0	2.6	0.0	2.6	2.6	7.7	5.1	28.2	5.1	10.3	12.8	12.8	2.6	2.6	100.0
(2)	0.2	0.2	0.0	0.2	0.0	0.2	0.2	0.5	0.3	1.7	0.3	0.6	0.8	0.8	0.2	0.2	6.1

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
 (2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE= 117

CALM=WIND SPEED LESS THAN 1.00MPH

220 FT TOWER - 220 FT EL

220.0 FT WIND DATA

4/1/83 - 6/30/83

STABILITY CLASS ALL-- ALL STABILITIES COMBINED

CLASS FREQUENCY (PERCENT) = 100.00

WIND DISTRIBUTION SUMMARY

SPEED(MPH)	DIRECTION																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
-CALM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	6
(1)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
(2)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
CALM- 3.5	9	6	6	3	3	0	6	3	0	3	3	0	0	3	3	0	48
(1)	0.5	0.3	0.3	0.2	0.2	0.0	0.3	0.2	0.0	0.2	0.2	0.0	0.0	0.2	0.2	0.0	2.5
(2)	0.5	0.3	0.3	0.2	0.2	0.0	0.3	0.2	0.0	0.2	0.2	0.0	0.0	0.2	0.2	0.0	2.5
3.6- 7.5	9	9	6	33	21	15	18	15	9	3	27	9	6	9	0	0	189
(1)	0.5	0.5	0.3	1.7	1.1	0.8	0.9	0.8	0.5	0.2	1.4	0.5	0.3	0.5	0.0	0.0	9.9
(2)	0.5	0.5	0.3	1.7	1.1	0.8	0.9	0.8	0.5	0.2	1.4	0.5	0.3	0.5	0.0	0.0	9.9
7.6-12.5	12	15	9	15	51	27	36	18	78	27	45	18	33	27	12	21	444
(1)	0.6	0.8	0.5	0.8	2.7	1.4	1.9	0.9	4.1	1.4	2.4	0.9	1.7	1.4	0.6	1.1	23.2
(2)	0.6	0.8	0.5	0.8	2.7	1.4	1.9	0.9	4.1	1.4	2.4	0.9	1.7	1.4	0.6	1.1	23.2
12.6-18.5	24	33	3	12	36	66	39	30	75	108	27	45	48	87	33	30	696
(1)	1.3	1.7	0.2	0.6	1.9	3.5	2.0	1.6	3.9	5.7	1.4	2.4	2.5	4.6	1.7	1.6	36.4
(2)	1.3	1.7	0.2	0.6	1.9	3.5	2.0	1.6	3.9	5.7	1.4	2.4	2.5	4.6	1.7	1.6	36.4
18.6-24.0	18	18	12	0	42	36	21	18	6	69	9	3	3	24	18	42	339
(1)	0.9	0.9	0.6	0.0	2.2	1.9	1.1	0.9	0.3	3.6	0.5	0.2	0.2	1.3	0.9	2.2	17.7
(2)	0.9	0.9	0.6	0.0	2.2	1.9	1.1	0.9	0.3	3.6	0.5	0.2	0.2	1.3	0.9	2.2	17.7
OVER-24.0	15	9	18	0	24	36	15	6	0	51	9	0	0	0	0	6	189
(1)	0.8	0.5	0.9	0.0	1.3	1.9	0.8	0.3	0.0	2.7	0.5	0.0	0.0	0.0	0.0	0.3	9.9
(2)	0.8	0.5	0.9	0.0	1.3	1.9	0.8	0.3	0.0	2.7	0.5	0.0	0.0	0.0	0.0	0.3	9.9
ALL SPEEDS	87	90	54	63	180	180	135	93	168	261	120	75	90	150	66	99	1911
(1)	4.6	4.7	2.8	3.3	9.4	9.4	7.1	4.9	8.8	13.7	6.3	3.9	4.7	7.8	3.5	5.2	100.0
(2)	4.6	4.7	2.8	3.3	9.4	9.4	7.1	4.9	8.8	13.7	6.3	3.9	4.7	7.8	3.5	5.2	100.0

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE

(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THE PERIOD

NUMBER OF GOOD OBSERVATIONS ON THIS PAGE=1911

NUMBER OF HOURS IN THIS PERIOD= 2184

87.5 PERCENT DATA RECOVERY

CALM=WIND SPEED LESS THAN 1.00MPH

TABLE 4A-2 (Continued)

3. OFF-SITE DOSES RESULTING FROM RADIOACTIVE LIQUID EFFLUENTS

3.1 General Dose Assessment

The methods and parameters used to calculate the off-site doses are presented in the Appendix I analysis for Unit #1¹. Population data are based upon the 1980 census data³; effluent releases are given elsewhere in this report.

Numerical constants used in the analyses have been updated to conform to Revision 1 of Regulatory Guide 1.109 dated October 1977.

3.2 Maximum Individual Doses

The maximum individual doses and pathways considered are shown in Tables 3.2-1 through 3.2-3.

3.3 Population Doses

The population doses are shown in Table 3.3-1.

Table 3.2-1

January - June 1983 Liquid Release Maximum Individual
Doses From All Pathways for Adults (MPREM)

<u>Pathway</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>Skin</u>	<u>Total Body</u>
Salt Water Fish	0.001	0.002	<0.001	<0.001	0.001	0.001	0.0	<0.001
Salt Water Shell Fish	0.003	0.002	<0.001	<0.001	0.001	0.004	0.0	0.001
Discharge Canal Shoreline	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ocean Shoreline Deposits	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Swimming	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boating	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total	0.004	0.004	0.003	<0.001	0.002	0.006	<0.001	0.002

Table 3.2-2

January - June 1983 Liquid Release Maximum Individual
Doses From All Pathways For Teenagers (MREM)

<u>Pathway</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-ILLI</u>	<u>Skin</u>	<u>Total Body</u>
Salt Water Fish	0.001	0.001	<0.001	<0.001	<0.001	0.001	0.0	<0.01
Salt Water Shell Fish	0.003	0.002	<0.001	<0.001	0.001	0.003	0.0	<0.001
Discharge Canal Shoreline	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Ocean Shoreline Deposits	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Swimming	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boating	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total	0.005	0.005	0.001	0.001	0.003	0.005	0.001	0.002

Table 3.2-3

January - June 1983 Liquid Release Maximum Individual
Doses From All Pathways For Children (MREM)

<u>Pathway</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-ILLI</u>	<u>Skin</u>	<u>Total Body</u>
Salt Water Fish	0.002	0.001	<0.001	<0.001	<0.001	<0.001	0.0	<0.001
Salt Water Shell Fish	0.004	0.003	<0.001	<0.001	0.001	0.001	0.0	0.002
Discharge Canal Shoreline	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ocean Shoreline Deposits	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Swimming	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boating	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total	0.006	0.004	<0.001	<0.001	0.002	0.002	<0.001	0.002

Table 3.3-1
Population Doses Resulting From The
January - June 1983 Liquid Effluents

<u>Pathway</u>	<u>Thyroid</u>	<u>Total Body (MAN-REM)</u>
Salt Water Fish	<0.01	0.01
Salt Water Shell Fish	<0.01	0.01
Salt Water Plants	<0.01	<0.01
Ocean Shoreline Deposits	0.02	0.02
Swimming	<0.01	<0.01
Total	0.02	0.03

NOTE: These are the major pathways for liquid effluents.

4. OFF-SITE DOSES RESULTING FROM RADIOACTIVE GASEOUS EFFLUENTS

4.1 General Dose Assessment

The methods and parameters used to calculate the off-site doses are presented in the Appendix I analysis for Unit #1¹. The gaseous releases for both reactor building vent and the main stack, for the period January - June 1983 are elsewhere in this report. Meteorological information for calculating dispersion of these releases are shown in Tables 4.1-1 through 4.1-12. For each quarter year, values of X/Q, X/Q depleted and D/Q are tabulated for twenty-three radial distances at sixteen compass directions using the AEOLUS program which was provided to Boston Edison by the Yankee Atomic Electric Company.

AEOLUS is a computer code for evaluating atmospheric dispersion of routine radioactive effluents from commercial nuclear power stations, and for computing statistical distributions of radiation doses which would result from postulated accidental releases of assumed intensity. The code is based, in part, on Regulatory Guide 1.111 developed by the U. S. Nuclear Regulatory Commission as guidance toward implementation of Appendix I to 10 CFR Part 50 and the "as low as reasonably achievable" objectives. Table 4.1-1 through 4.1-12 are based on data taken at the 220-foot elevation for the main stack and the 33-foot elevation for the reactor building vent.

4.2 Maximum Individual Doses

The maximum individual dose locations and pathways assumed are presented in Table 4.2-1. The resultant maximum individual adult, teenage, child and infant doses are reported in Tables 4.2-2 through 4.2-5. In the summary Table 4.2-6, doses from noble gas immersion are included for skin and total body; individual organ doses are due to iodine and air particulates only.

4.3 Population Doses

The assumed population distribution is shown in Table 4.3-1 and is based upon 1980 Census Data for the permanent population.³ The population doses by pathway are presented in Table 4.3-2.

In accordance with Regulatory Guide 1.21, only pathways yielding significant contribution to the total dose have been included; those pathways not included account for a total of less than 5% of the overall population doses.

UNDEPLETED RELATIVE CONCENTRATIONS PER UNIT
EMISSION FOR REACTOR BUILDING VENT FOR
JANUARY - MARCH 1983

TABLE 4.1-1

UNDEPLETED X/O FOR THE REACTOR BUILDING VENT FOR 1/1/83 - 3/31/83

RECPT NO.	DOWNWIND DISTANCE METERS	S - (1) SSW 0.0	(2) SW 22.5	(3) WSW 45.0	(4) W 67.5	(5) WNW 90.0	(6) NW 112.5	(7) NNW 135.0	(8)
1	201.20	1.510E-05	1.260E-05	1.660E-05	2.230E-05	1.850E-05	1.910E-05	1.990E-05	4.100E-05
2	402.30	4.360E-06	3.710E-06	4.860E-06	6.630E-06	5.590E-06	5.650E-06	5.810E-06	1.190E-05
3	804.70	1.350E-06	1.230E-06	1.580E-06	2.230E-06	1.850E-06	1.870E-06	1.940E-06	3.670E-06
4	1207.00	7.210E-07	6.560E-07	8.460E-07	1.190E-06	9.830E-07	9.880E-07	1.020E-06	1.930E-06
5	1609.40	4.680E-07	4.230E-07	5.470E-07	7.550E-07	6.330E-07	6.350E-07	6.570E-07	1.290E-06
6	2414.00	2.640E-07	2.310E-07	2.930E-07	4.150E-07	3.450E-07	3.470E-07	3.590E-07	7.020E-07
7	3218.70	1.770E-07	1.510E-07	2.000E-07	2.740E-07	2.280E-07	2.290E-07	2.390E-07	4.570E-07
8	4023.40	1.300E-07	1.090E-07	1.460E-07	1.990E-07	1.650E-07	1.660E-07	1.720E-07	3.250E-07
9	4828.10	1.010E-07	8.420E-08	1.120E-07	1.520E-07	1.250E-07	1.260E-07	1.310E-07	2.470E-07
10	5632.70	8.230E-08	6.760E-08	8.950E-08	1.220E-07	1.000E-07	1.010E-07	1.060E-07	2.000E-07
11	6437.40	6.870E-08	5.600E-08	7.510E-08	1.020E-07	8.440E-08	8.470E-08	8.800E-08	1.650E-07
12	7242.10	5.860E-08	4.740E-08	6.370E-08	8.640E-08	7.140E-08	7.170E-08	7.490E-08	1.420E-07
13	8046.80	5.090E-08	4.080E-08	5.510E-08	7.490E-08	6.150E-08	6.180E-08	6.490E-08	1.230E-07
14	12070.10	3.000E-08	2.350E-08	3.200E-08	4.300E-08	3.540E-08	3.570E-08	3.730E-08	7.010E-08
15	16093.49	2.080E-08	1.600E-08	2.190E-08	2.970E-08	2.410E-08	2.430E-08	2.530E-08	4.810E-08
16	24140.29	1.250E-08	9.410E-09	1.290E-08	1.760E-08	1.410E-08	1.420E-08	1.490E-08	2.820E-08
17	32187.00	8.690E-09	6.490E-09	8.750E-09	1.190E-08	9.730E-09	9.760E-09	1.020E-08	1.930E-08
18	40233.79	6.610E-09	4.890E-09	6.750E-09	9.070E-09	7.320E-09	7.350E-09	7.660E-09	1.450E-08
19	48280.48	5.320E-09	3.910E-09	5.410E-09	7.380E-09	5.850E-09	5.880E-09	6.190E-09	1.170E-08
20	56327.29	4.430E-09	3.240E-09	4.450E-09	5.940E-09	4.840E-09	4.870E-09	5.070E-09	9.570E-09
21	64373.99	3.770E-09	2.750E-09	3.810E-09	5.050E-09	4.100E-09	4.130E-09	4.330E-09	8.180E-09
22	72420.75	3.280E-09	2.380E-09	3.200E-09	4.380E-09	3.500E-09	3.530E-09	3.690E-09	7.040E-09
23	80467.44	2.890E-09	2.090E-09	2.900E-09	3.850E-09	3.120E-09	3.150E-09	3.310E-09	6.210E-09

RECPT NO.	DOWNWIND DISTANCE METERS	N - (9) NNE 180.0	(10) NNE 202.5	(11) ENE 225.0	(12) E 247.5	(13) ESE 270.0	(14) ESE 292.5	(15) SSE 315.0	(16)
1	201.20	3.190E-05	5.360E-05	5.870E-05	6.130E-05	6.430E-05	3.280E-05	3.30E-05	3.10E-05
2	402.30	9.250E-06	1.570E-05	1.710E-05	1.790E-05	1.880E-05	3.340E-05	3.36E-05	3.20E-05
3	804.70	2.890E-06	5.070E-06	5.260E-06	5.450E-06	5.640E-06	3.300E-06	3.32E-06	3.10E-06
4	1207.00	1.530E-06	2.770E-06	2.860E-06	2.930E-06	3.020E-06	1.800E-06	1.82E-06	1.70E-06
5	1609.40	8.890E-07	1.610E-06	1.670E-06	1.720E-06	1.780E-06	1.170E-06	1.19E-06	1.10E-06
6	2414.00	5.550E-07	1.010E-06	1.060E-06	1.100E-06	1.150E-06	6.420E-07	6.45E-07	6.10E-07
7	3218.70	3.820E-07	6.800E-07	7.100E-07	7.300E-07	7.600E-07	4.200E-07	4.23E-07	4.00E-07
8	4023.40	2.720E-07	4.800E-07	5.000E-07	5.200E-07	5.400E-07	3.000E-07	3.03E-07	2.80E-07
9	4828.10	2.200E-07	3.800E-07	3.900E-07	4.100E-07	4.300E-07	2.500E-07	2.53E-07	2.30E-07
10	5632.70	1.790E-07	3.070E-07	3.170E-07	3.260E-07	3.360E-07	1.950E-07	1.98E-07	1.80E-07
11	6437.40	1.490E-07	2.550E-07	2.650E-07	2.740E-07	2.840E-07	1.550E-07	1.58E-07	1.40E-07
12	7242.10	1.280E-07	2.170E-07	2.270E-07	2.360E-07	2.460E-07	1.350E-07	1.38E-07	1.20E-07
13	8046.80	1.110E-07	1.980E-07	2.080E-07	2.170E-07	2.260E-07	1.190E-07	1.22E-07	1.00E-07
14	12070.10	6.550E-08	1.100E-07	1.150E-07	1.200E-07	1.250E-07	6.810E-08	6.84E-08	6.40E-08
15	16093.49	4.540E-08	7.540E-08	7.850E-08	8.150E-08	8.450E-08	4.400E-08	4.43E-08	4.10E-08
16	24140.29	2.740E-08	4.480E-08	4.680E-08	4.880E-08	5.080E-08	2.600E-08	2.63E-08	2.40E-08
17	32187.00	1.900E-08	3.190E-08	3.390E-08	3.590E-08	3.790E-08	1.900E-08	1.93E-08	1.70E-08
18	40233.79	1.400E-08	2.380E-08	2.480E-08	2.580E-08	2.680E-08	1.400E-08	1.43E-08	1.30E-08
19	48280.48	1.170E-08	1.980E-08	2.080E-08	2.180E-08	2.280E-08	1.170E-08	1.20E-08	1.10E-08
20	56327.29	9.780E-09	1.540E-08	1.640E-08	1.740E-08	1.840E-08	9.780E-09	1.00E-08	9.30E-09
21	64373.99	8.270E-09	1.350E-08	1.450E-08	1.550E-08	1.650E-08	8.270E-09	8.50E-09	7.80E-09
22	72420.75	7.240E-09	1.150E-08	1.250E-08	1.350E-08	1.450E-08	7.240E-09	7.40E-09	6.80E-09
23	80467.44	6.440E-09	1.010E-08	1.110E-08	1.210E-08	1.310E-08	6.440E-09	6.60E-09	6.00E-09

DEPLETED RELATIVE CONCENTRATION PER UNIT
EMISSION FOR REACTOR BUILDING VENT FOR
JANUARY - MARCH 1983

DEPLETED X/R FOR THE REACTOR BUILDING VENT FOR 1/1/83 - 3/31/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3						
		S - (1)	SSW - (2)	SW - (3)	WSW - (4)	W - (5)	WNW - (6)	NW - (7)
		0.0	22.5	45.0	67.5	90.0	112.5	135.0
1	201.20	1.410E-05	1.190E-05	1.550E-05	2.090E-05	1.740E-05	1.50E-05	1.70E-05
2	402.30	3.960E-06	3.450E-06	4.470E-06	6.060E-06	5.040E-06	4.70E-06	5.09E-06
3	804.70	1.190E-06	1.120E-06	1.420E-06	1.980E-06	1.660E-06	1.50E-06	1.70E-06
4	1207.00	6.260E-07	5.870E-07	7.480E-07	1.040E-06	8.570E-07	7.90E-07	8.60E-07
5	1609.40	4.000E-07	3.730E-07	4.770E-07	6.600E-07	5.570E-07	5.00E-07	5.39E-07
6	2414.00	2.190E-07	1.990E-07	2.570E-07	3.530E-07	2.970E-07	2.70E-07	2.95E-07
7	3218.70	1.430E-07	1.270E-07	1.660E-07	2.270E-07	1.900E-07	1.70E-07	1.85E-07
8	4023.40	1.020E-07	9.030E-08	1.180E-07	1.610E-07	1.350E-07	1.20E-07	1.30E-07
9	4828.10	7.810E-08	6.830E-08	8.920E-08	1.220E-07	1.020E-07	9.00E-08	9.70E-08
10	5632.70	6.200E-08	5.400E-08	7.050E-08	9.610E-08	8.060E-08	7.10E-08	7.70E-08
11	6437.40	5.070E-08	4.400E-08	5.750E-08	7.820E-08	6.530E-08	5.70E-08	6.10E-08
12	7242.10	4.250E-08	3.670E-08	4.790E-08	6.510E-08	5.47E-08	4.80E-08	5.10E-08
13	8046.80	3.620E-08	3.120E-08	4.080E-08	5.520E-08	4.640E-08	4.00E-08	4.30E-08
14	12070.10	1.960E-08	1.690E-08	2.200E-08	2.960E-08	2.450E-08	2.10E-08	2.20E-08
15	16093.49	1.260E-08	1.090E-08	1.410E-08	1.890E-08	1.570E-08	1.35E-08	1.40E-08
16	24140.29	6.640E-09	5.770E-09	7.400E-09	9.860E-09	8.140E-09	7.00E-09	7.40E-09
17	32187.00	4.120E-09	3.660E-09	4.630E-09	6.140E-09	5.020E-09	4.30E-09	4.60E-09
18	40233.79	2.820E-09	2.560E-09	3.190E-09	4.220E-09	3.50E-09	3.00E-09	3.20E-09
19	48280.48	2.060E-09	1.910E-09	2.350E-09	3.100E-09	2.50E-09	2.10E-09	2.20E-09
20	56327.29	1.560E-09	1.480E-09	1.800E-09	2.370E-09	1.90E-09	1.60E-09	1.70E-09
21	64373.99	1.220E-09	1.180E-09	1.420E-09	1.870E-09	1.50E-09	1.30E-09	1.40E-09
22	72420.75	9.840E-10	9.720E-10	1.160E-09	1.510E-09	1.20E-09	1.00E-09	1.10E-09
23	80467.44	8.060E-10	8.130E-10	9.560E-10	1.250E-09	1.110E-09	9.40E-10	1.00E-09

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3						
		N - (9)	NNE - (10)	NE - (11)	E - (12)	ESE - (13)	E - (14)	SE - (15)
		180.0	202.5	225.0	247.5	270.0	292.5	315.0
1	201.20	2.930E-05	5.000E-05	5.400E-05	5.730E-05	6.030E-05	3.070E-05	3.470E-05
2	402.30	8.260E-06	1.430E-05	1.540E-05	1.640E-05	1.720E-05	8.30E-06	9.70E-06
3	804.70	2.510E-06	4.510E-06	4.540E-06	5.230E-06	5.600E-06	2.870E-06	3.290E-06
4	1207.00	1.310E-06	2.420E-06	2.470E-06	2.840E-06	3.020E-06	1.610E-06	1.890E-06
5	1609.40	8.300E-07	1.560E-06	1.590E-06	1.840E-06	1.950E-06	1.070E-06	1.270E-06
6	2414.00	4.580E-07	8.450E-07	8.710E-07	9.60E-07	1.020E-06	5.510E-07	6.30E-07
7	3218.70	3.000E-07	5.450E-07	5.670E-07	6.410E-07	6.70E-07	3.520E-07	4.00E-07
8	4023.40	2.160E-07	3.880E-07	4.050E-07	4.530E-07	4.70E-07	2.490E-07	2.80E-07
9	4828.10	1.640E-07	2.950E-07	3.080E-07	3.460E-07	3.60E-07	1.860E-07	2.10E-07
10	5632.70	1.300E-07	2.340E-07	2.440E-07	2.730E-07	2.80E-07	1.420E-07	1.60E-07
11	6437.40	1.060E-07	1.910E-07	1.990E-07	2.230E-07	2.270E-07	1.150E-07	1.30E-07
12	7242.10	8.980E-08	1.590E-07	1.670E-07	1.860E-07	1.90E-07	9.70E-08	1.10E-07
13	8046.80	7.560E-08	1.350E-07	1.420E-07	1.580E-07	1.60E-07	8.30E-08	9.40E-08
14	12070.10	4.040E-08	7.270E-08	7.640E-08	8.590E-08	8.70E-08	4.50E-08	5.10E-08
15	16093.49	2.560E-08	4.640E-08	4.870E-08	5.520E-08	5.60E-08	2.80E-08	3.20E-08
16	24140.29	1.320E-08	2.410E-08	2.510E-08	2.840E-08	2.90E-08	1.40E-08	1.60E-08
17	32187.00	7.940E-09	1.480E-08	1.530E-08	1.730E-08	1.75E-08	8.60E-09	9.80E-09
18	40233.79	5.280E-09	1.010E-08	1.030E-08	1.190E-08	1.20E-08	6.10E-09	7.00E-09
19	48280.48	3.750E-09	7.380E-09	7.60E-09	8.590E-09	8.70E-09	4.40E-09	5.00E-09
20	56327.29	2.700E-09	5.180E-09	5.30E-09	6.040E-09	6.10E-09	3.00E-09	3.40E-09
21	64373.99	1.000E-09	1.840E-09	1.890E-09	2.150E-09	2.17E-09	1.00E-09	1.10E-09
22	72420.75	1.640E-09	3.170E-09	3.250E-09	3.690E-09	3.70E-09	1.80E-09	2.00E-09
23	80467.44	1.300E-09	2.730E-09	2.790E-09	3.150E-09	3.15E-09	1.50E-09	1.70E-09

DEPOSITION FACTORS FOR THE REACTOR BUILDING VENT FOR 1/1/83 - 3/31/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		S - (1)	SSW - (2)	SW - (3)	WSW - (4)	W - (5)	WNW - (6)	NW - (7)	NNW - (8)
		0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5
1	201.20	6.540E-08	4.370E-08	8.170E-08	7.710E-08	6.970E-08	5.980E-08	5.350E-08	7.560E-08
2	402.30	1.840E-08	1.270E-08	2.390E-08	2.260E-08	2.030E-08	1.730E-08	1.550E-08	2.150E-08
3	804.70	5.370E-09	4.080E-09	7.780E-09	7.430E-09	6.820E-09	5.830E-09	5.080E-09	6.490E-09
4	1207.00	2.800E-09	2.160E-09	4.140E-09	3.930E-09	3.620E-09	2.900E-09	2.730E-09	3.390E-09
5	1609.40	1.790E-09	1.380E-09	2.640E-09	2.500E-09	2.300E-09	1.840E-09	1.750E-09	2.180E-09
6	2414.00	9.880E-10	7.320E-10	1.410E-09	1.330E-09	1.220E-09	9.920E-10	9.360E-10	1.190E-09
7	3218.70	6.480E-10	4.690E-10	9.030E-10	8.500E-10	7.800E-10	6.410E-10	6.000E-10	7.740E-10
8	4023.40	4.660E-10	3.320E-10	6.390E-10	6.010E-10	5.520E-10	4.550E-10	4.250E-10	5.560E-10
9	4828.10	3.550E-10	2.510E-10	4.830E-10	4.530E-10	4.170E-10	3.440E-10	3.220E-10	4.230E-10
10	5632.70	2.820E-10	1.980E-10	3.800E-10	3.570E-10	3.290E-10	2.720E-10	2.540E-10	3.350E-10
11	6437.40	2.310E-10	1.620E-10	3.100E-10	2.900E-10	2.670E-10	2.210E-10	2.070E-10	2.740E-10
12	7242.10	1.940E-10	1.350E-10	2.580E-10	2.420E-10	2.220E-10	1.840E-10	1.730E-10	2.290E-10
13	8046.80	1.650E-10	1.150E-10	2.190E-10	2.050E-10	1.890E-10	1.560E-10	1.470E-10	1.950E-10
14	12070.10	8.980E-11	6.230E-11	1.180E-10	1.100E-10	1.010E-10	8.350E-11	7.900E-11	1.040E-10
15	16093.49	5.760E-11	4.020E-11	7.550E-11	7.050E-11	6.500E-11	5.310E-11	5.070E-11	6.620E-11
16	24140.29	3.010E-11	2.150E-11	3.950E-11	3.700E-11	3.420E-11	2.740E-11	2.660E-11	3.400E-11
17	32187.00	1.860E-11	1.370E-11	2.470E-11	2.320E-11	2.150E-11	1.680E-11	1.660E-11	2.060E-11
18	40233.79	1.260E-11	9.600E-12	1.700E-11	1.610E-11	1.490E-11	1.140E-11	1.140E-11	1.380E-11
19	48280.48	9.150E-12	7.190E-12	1.260E-11	1.190E-11	1.110E-11	8.250E-12	8.470E-12	9.900E-12
20	56327.29	6.900E-12	5.600E-12	9.630E-12	9.130E-12	8.560E-12	6.320E-12	6.440E-12	7.260E-12
21	64373.99	5.370E-12	4.500E-12	7.620E-12	7.240E-12	6.810E-12	4.840E-12	5.070E-12	5.540E-12
22	72420.75	4.280E-12	3.700E-12	6.180E-12	5.890E-12	5.570E-12	3.860E-12	4.100E-12	4.340E-12
23	80467.44	3.490E-12	3.100E-12	5.110E-12	4.880E-12	4.630E-12	3.140E-12	3.370E-12	3.460E-12

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		N - (9)	NNE - (10)	NE - (11)	ENE - (12)	E - (13)	ESE - (14)	SE - (15)	SSE - (16)
		180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5
1	201.20	4.340E-08	7.680E-08	1.070E-07	1.170E-07	1.460E-07	9.440E-08	1.110E-07	5.160E-08
2	402.30	1.230E-08	2.190E-08	3.070E-08	3.340E-08	4.180E-08	2.750E-08	3.330E-08	1.470E-08
3	804.70	3.790E-09	6.720E-09	9.210E-09	1.090E-08	1.390E-08	9.280E-09	1.100E-08	4.530E-09
4	1207.00	2.000E-09	3.550E-09	4.900E-09	5.890E-09	7.480E-09	4.960E-09	5.770E-09	2.350E-09
5	1609.40	1.270E-09	2.270E-09	3.150E-09	3.800E-09	4.790E-09	3.180E-09	3.650E-09	1.490E-09
6	2414.00	6.990E-10	1.240E-09	1.730E-09	2.050E-09	2.560E-09	1.680E-09	1.920E-09	8.090E-10
7	3218.70	4.560E-10	8.070E-10	1.120E-09	1.320E-09	1.640E-09	1.070E-09	1.220E-09	5.260E-10
8	4023.40	3.260E-10	5.760E-10	8.030E-10	9.350E-10	1.160E-09	7.580E-10	8.620E-10	3.760E-10
9	4828.10	2.480E-10	4.380E-10	6.100E-10	7.090E-10	8.830E-10	5.730E-10	6.470E-10	2.860E-10
10	5632.70	1.970E-10	3.470E-10	4.830E-10	5.610E-10	6.970E-10	4.520E-10	5.090E-10	2.060E-10
11	6437.40	1.610E-10	2.830E-10	3.950E-10	4.580E-10	5.680E-10	3.670E-10	4.130E-10	1.850E-10
12	7242.10	1.340E-10	2.360E-10	3.300E-10	3.810E-10	4.730E-10	3.050E-10	3.440E-10	1.540E-10
13	8046.80	1.140E-10	2.010E-10	2.810E-10	3.240E-10	4.020E-10	2.590E-10	2.920E-10	1.310E-10
14	12070.10	6.110E-11	1.080E-10	1.520E-10	1.740E-10	2.150E-10	1.390E-10	1.570E-10	7.100E-11
15	16093.49	3.890E-11	6.890E-11	9.670E-11	1.120E-10	1.380E-10	8.890E-11	1.010E-10	4.550E-11
16	24140.29	2.000E-11	3.560E-11	4.990E-11	5.830E-11	7.230E-11	4.670E-11	5.320E-11	2.390E-11
17	32187.00	1.220E-11	2.180E-11	3.040E-11	3.610E-11	4.500E-11	2.920E-11	3.370E-11	1.470E-11
18	40233.79	8.140E-12	1.470E-11	2.040E-11	2.460E-11	3.090E-11	2.020E-11	2.360E-11	1.030E-11
19	48280.48	5.820E-12	1.060E-11	1.460E-11	1.790E-11	2.270E-11	1.490E-11	1.770E-11	7.910E-12
20	56327.29	4.320E-12	7.910E-12	1.090E-11	1.360E-11	1.730E-11	1.150E-11	1.330E-11	5.740E-12
21	64373.99	3.310E-12	6.100E-12	8.340E-12	1.060E-11	1.360E-11	9.190E-12	1.110E-11	4.530E-12
22	72420.75	2.660E-12	4.820E-12	6.550E-12	8.450E-12	1.100E-11	7.400E-12	9.180E-12	3.670E-12
23	80467.44	2.070E-12	3.880E-12	5.250E-12	6.870E-12	9.000E-12	6.120E-12	7.720E-12	3.030E-12

UNDEPLETED RELATIVE CONCENTRATION PER UNIT
EMISSION FOR MAIN STACK FOR
JANUARY - MARCH 1983

UNDEPLETED X/D FOR THE MAIN STACK FOR 1/1/83 - 3/31/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M*3							
		S - (1)	SSW - (2)	SW - (3)	WSW - (4)	W - (5)	WNW - (6)	NW - (7)	NNW - (8)
		0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5
1	201.20	1.330E-07	1.420E-07	2.280E-07	6.680E-09	8.610E-08	2.240E-09	4.020E-08	3.980E-09
2	402.30	2.550E-06	2.270E-06	1.240E-06	7.180E-08	6.700E-07	2.050E-07	4.060E-07	3.700E-08
3	804.70	2.210E-06	2.770E-06	1.270E-06	1.310E-07	1.980E-07	9.920E-08	2.350E-07	3.800E-08
4	1207.00	1.620E-06	4.380E-06	1.150E-06	3.010E-07	1.730E-07	1.530E-07	1.580E-07	3.460E-08
5	1609.40	1.850E-06	3.590E-06	1.060E-06	2.470E-07	1.750E-07	1.910E-07	1.630E-07	2.670E-08
6	2414.00	1.400E-06	1.830E-06	7.100E-07	2.390E-07	1.470E-07	1.960E-07	2.30E-07	2.400E-08
7	3218.70	9.710E-07	1.160E-06	5.080E-07	1.730E-07	1.180E-07	1.400E-07	1.300E-07	3.700E-08
8	4023.40	7.020E-07	8.170E-07	3.840E-07	1.350E-07	9.570E-08	1.060E-07	1.150E-07	3.000E-08
9	4828.10	5.390E-07	6.200E-07	3.040E-07	1.090E-07	7.940E-08	1.060E-07	1.150E-07	3.000E-08
10	5632.70	4.330E-07	4.920E-07	2.480E-07	9.110E-08	6.790E-08	1.060E-07	1.150E-07	3.000E-08
11	6437.40	3.580E-07	4.030E-07	2.080E-07	7.730E-08	5.930E-08	1.060E-07	1.150E-07	3.000E-08
12	7242.10	3.030E-07	3.370E-07	1.780E-07	6.730E-08	5.740E-08	1.060E-07	1.150E-07	3.000E-08
13	8046.80	2.620E-07	2.680E-07	1.540E-07	5.710E-08	5.740E-08	1.060E-07	1.150E-07	3.000E-08
14	12079.10	1.510E-07	1.620E-07	9.070E-08	3.620E-08	5.650E-08	1.060E-07	1.150E-07	3.000E-08
15	16093.49	1.040E-07	1.080E-07	6.200E-08	2.540E-08	4.000E-08	1.060E-07	1.150E-07	3.000E-08
16	24140.29	6.130E-08	6.150E-08	3.590E-08	1.530E-08	2.550E-08	1.060E-07	1.150E-07	3.000E-08
17	32187.00	4.260E-08	4.190E-08	2.470E-08	1.110E-08	1.740E-08	1.060E-07	1.150E-07	3.000E-08
18	40233.79	3.330E-08	3.240E-08	1.860E-08	8.110E-09	1.450E-08	1.060E-07	1.150E-07	3.000E-08
19	48280.48	2.600E-08	2.470E-08	1.450E-08	6.130E-09	1.090E-08	1.060E-07	1.150E-07	3.000E-08
20	56327.29	2.160E-08	2.030E-08	1.250E-08	6.720E-09	1.040E-08	1.060E-07	1.150E-07	3.000E-08
21	64373.99	1.840E-08	1.720E-08	1.060E-08	5.700E-09	8.950E-09	1.060E-07	1.150E-07	3.000E-08
22	72420.75	1.600E-08	1.480E-08	9.200E-09	5.040E-09	7.710E-09	1.060E-07	1.150E-07	3.000E-08
23	80467.44	1.410E-08	1.300E-08	8.000E-09	4.420E-09	6.810E-09	1.060E-07	1.150E-07	3.000E-08

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M*3							
		N - (9)	NNE - (10)	NE - (11)	E - (12)	ESE - (13)	SE - (14)	SSE - (15)	S - (16)
		180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5
1	201.20	3.140E-34	2.970E-10	8.080E-09	6.390E-10	5.50E-10	7.890E-09	5.340E-08	5.340E-08
2	402.30	1.320E-16	5.030E-09	1.430E-07	6.310E-08	1.570E-08	7.890E-07	3.500E-07	3.500E-07
3	804.70	2.050E-11	1.910E-09	1.190E-07	5.540E-08	1.210E-08	4.520E-08	3.500E-07	3.500E-07
4	1207.00	2.820E-10	1.5310E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
5	1609.40	9.640E-10	1.140E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
6	2414.00	2.920E-09	1.900E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
7	3218.70	4.860E-09	1.960E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
8	4023.40	5.020E-09	1.960E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
9	4828.10	5.050E-09	1.700E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
10	5632.70	4.990E-09	1.580E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
11	6437.40	4.890E-09	1.480E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
12	7242.10	4.750E-09	1.380E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
13	8046.80	4.370E-09	1.290E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
14	12079.10	3.370E-09	1.020E-08	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
15	16093.49	3.210E-09	8.550E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
16	24140.29	2.900E-09	5.650E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
17	32187.00	1.900E-09	4.530E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
18	40233.79	1.570E-09	4.530E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
19	48280.48	1.330E-09	4.530E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
20	56327.29	1.170E-09	4.530E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
21	64373.99	1.100E-09	4.530E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
22	72420.75	1.100E-09	4.530E-09	1.290E-07	5.990E-08	1.430E-08	5.060E-08	3.500E-07	3.500E-07
23	80467.44	1.860E-09	1.790E-09	9.110E-09	8.600E-09	8.600E-09	9.110E-09	9.110E-09	9.110E-09

DEPLETED RELATIVE CONCENTRATIONS PER UNIT
EMISSION FOR MAIN STACK FOR
JANUARY - MARCH 1983

DEPLETED X/Q FOR THE MAIN STACK FOR 1/1/83 - 3/31/83

RECPT NO.	DOWNWIND DISTANCE METERS	S - (1)	SSW - (2)	SW - (3)	WSW - (4)	W - (5)	WNW - (6)	NW - (7)	NNW - (8)
		0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5
1	201.20	1.330E-07	1.420E-07	2.280E-07	6.680E-09	8.610E-09	2.24E-08	4.020E-08	3.980E-09
2	402.30	2.550E-06	2.270E-06	1.240E-06	7.170E-06	6.700E-07	2.30E-07	4.20E-07	3.200E-08
3	804.70	2.210E-06	2.770E-06	1.270E-06	1.310E-07	1.670E-07	9.80E-09	2.320E-07	5.790E-09
4	1207.00	1.620E-06	4.370E-06	1.150E-06	3.000E-07	1.730E-07	1.550E-07	1.570E-07	3.430E-08
5	1609.40	1.850E-06	3.560E-06	1.060E-06	2.430E-07	1.40E-07	1.91E-07	1.52E-07	2.660E-08
6	2014.00	1.390E-06	1.810E-06	7.050E-07	2.370E-07	1.470E-07	1.90E-07	1.420E-07	2.350E-08
7	2418.70	9.590E-07	1.130E-06	5.020E-07	1.720E-07	1.170E-07	1.50E-07	1.250E-07	2.180E-08
8	4023.40	6.900E-07	7.910E-07	3.780E-07	1.320E-07	9.400E-08	1.36E-07	1.080E-07	1.980E-08
9	4828.10	5.270E-07	5.950E-07	2.970E-07	1.070E-07	7.500E-08	1.16E-07	9.430E-08	1.790E-08
10	5632.70	4.210E-07	4.680E-07	2.410E-07	8.660E-08	6.550E-08	9.94E-08	8.380E-08	1.620E-08
11	6437.40	3.460E-07	3.800E-07	2.010E-07	7.520E-08	5.780E-08	8.62E-08	7.340E-08	1.480E-08
12	7242.10	2.920E-07	3.160E-07	1.710E-07	6.470E-08	5.090E-08	7.57E-08	6.180E-08	1.350E-08
13	8046.80	2.510E-07	2.680E-07	1.470E-07	5.660E-08	4.80E-08	7.25E-08	5.80E-08	1.180E-08
14	12070.10	1.410E-07	1.450E-07	8.440E-08	3.380E-08	3.580E-08	4.75E-08	3.80E-08	9.180E-09
15	16093.49	9.380E-08	9.420E-08	5.630E-08	2.320E-08	3.730E-08	3.15E-08	3.56E-08	1.620E-08
16	20140.29	5.250E-08	5.070E-08	3.120E-08	1.340E-08	2.200E-08	1.870E-08	2.00E-08	9.470E-09
17	32187.00	3.460E-08	3.290E-08	2.060E-08	9.320E-09	1.500E-08	1.50E-08	1.860E-08	6.320E-09
18	48233.79	2.490E-08	2.350E-08	1.490E-08	7.680E-09	1.100E-08	1.30E-08	1.330E-08	3.510E-09
19	82280.48	1.890E-08	1.780E-08	1.140E-08	5.780E-09	8.50E-09	9.40E-09	5.310E-09	2.780E-09
20	56327.29	1.490E-08	1.410E-08	9.150E-09	4.500E-09	6.410E-09	5.99E-09	4.320E-09	2.250E-09
21	64373.99	1.210E-08	1.140E-08	7.460E-09	3.600E-09	4.90E-09	4.68E-09	3.500E-09	1.860E-09
22	72420.75	1.000E-08	9.530E-09	6.230E-09	2.690E-09	3.100E-09	3.76E-09	3.550E-09	1.570E-09
23	80467.44	8.400E-09	8.070E-09	5.280E-09	2.610E-09	2.54E-09	3.07E-09	3.050E-09	1.1570E-09

RECPT NO.	DOWNWIND DISTANCE METERS	N - (9)	NNE - (10)	NE - (11)	E - (12)	ESE - (13)	E - (14)	SE - (15)	SSE - (16)
		180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5
1	201.20	3.140E-34	2.970E-10	8.080E-09	6.390E-10	1.55E-10	7.89E-09	3.330E-08	5.340E-08
2	402.30	1.320E-16	5.030E-09	1.430E-07	2.610E-08	5.160E-09	1.34E-07	5.840E-07	1.290E-06
3	804.70	2.050E-11	1.910E-09	1.190E-07	5.540E-08	1.20E-08	4.49E-08	2.50E-07	2.090E-06
4	1207.00	2.820E-10	5.310E-09	1.230E-07	4.510E-08	1.610E-08	5.16E-08	2.510E-07	2.450E-06
5	1609.40	9.630E-10	1.140E-08	1.280E-07	3.880E-08	1.470E-08	8.390E-08	3.400E-07	2.110E-06
6	2014.00	2.910E-09	1.890E-08	1.320E-07	4.470E-08	1.64E-08	1.180E-07	4.030E-07	1.690E-06
7	2418.70	4.220E-09	2.020E-08	1.220E-07	4.990E-08	1.90E-08	1.08E-07	3.580E-07	1.000E-06
8	4023.40	4.830E-09	1.940E-08	1.110E-07	5.940E-08	2.40E-08	1.50E-07	3.120E-07	8.710E-07
9	4828.10	4.990E-09	1.810E-08	9.940E-08	4.720E-08	3.94E-08	1.90E-07	3.30E-07	5.540E-07
10	5632.70	5.000E-09	1.670E-08	8.970E-08	4.710E-08	3.99E-08	1.90E-07	3.00E-07	4.80E-07
11	6437.40	4.930E-09	1.550E-08	7.160E-08	4.430E-08	3.60E-08	1.80E-07	2.70E-07	4.070E-07
12	7242.10	4.810E-09	1.440E-08	6.880E-08	4.030E-08	3.00E-08	1.50E-07	2.40E-07	3.310E-07
13	8046.80	3.740E-09	1.340E-08	6.40E-08	3.60E-08	2.50E-08	1.30E-07	2.00E-07	2.70E-07
14	12070.10	3.040E-09	7.600E-09	4.640E-08	2.60E-08	1.80E-08	1.00E-07	1.50E-07	1.90E-07
15	16093.49	2.180E-09	5.150E-09	3.550E-08	1.90E-08	1.30E-08	7.00E-08	1.00E-07	1.30E-07
16	20140.29	1.670E-09	3.850E-09	2.500E-08	1.30E-08	9.00E-09	5.00E-08	7.00E-08	9.00E-08
17	32187.00	1.330E-09	2.010E-09	1.490E-08	1.140E-08	8.00E-09	4.00E-08	5.00E-08	6.00E-08
18	48280.48	9.030E-10	1.080E-09	7.420E-09	5.40E-09	3.80E-09	1.90E-08	2.40E-08	2.90E-08
19	56327.29	1.260E-09	1.690E-09	1.230E-08	9.00E-09	6.00E-09	3.00E-08	3.80E-08	4.60E-08
20	64373.99	1.310E-09	1.450E-09	1.030E-08	7.50E-09	5.00E-09	2.50E-08	3.20E-08	3.90E-08
21	72420.75	1.100E-09	1.250E-09	8.630E-09	6.43E-09	4.38E-09	2.19E-08	2.80E-08	3.40E-08
22	80467.44	1.100E-09	1.250E-09	8.630E-09	6.43E-09	4.38E-09	2.19E-08	2.80E-08	3.40E-08

DEPOSITION FACTORS FOR THE MAIN STACK FOR 1/1/83 - 3/31/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	8.380E-11	6.090E-11	1.280E-10	2.950E-11	4.630E-11	1.280E-11	1.200E-11	3.380E-12
2	402.30	1.570E-09	1.120E-09	8.200E-10	4.340E-10	4.230E-10	1.230E-10	1.270E-10	6.300E-11
3	804.70	1.480E-09	1.670E-09	1.130E-09	5.790E-10	3.150E-10	7.650E-11	7.110E-11	5.850E-11
4	1207.00	1.210E-09	3.370E-09	1.100E-09	1.080E-09	4.270E-10	1.230E-10	6.280E-11	5.550E-11
5	1609.40	1.860E-09	3.660E-09	1.110E-09	1.190E-09	4.680E-10	1.550E-10	8.060E-11	5.540E-11
6	2414.00	1.640E-09	1.870E-09	8.190E-10	3.170E-10	4.190E-10	1.650E-10	1.110E-10	6.120E-11
7	3218.70	1.160E-09	1.170E-09	6.240E-10	5.930E-10	3.390E-10	1.510E-10	1.180E-10	6.310E-11
8	4023.40	8.390E-10	8.260E-10	4.920E-10	4.520E-10	2.740E-10	1.330E-10	1.110E-10	6.110E-11
9	4828.10	6.420E-10	6.230E-10	4.020E-10	3.600E-10	2.260E-10	1.160E-10	1.020E-10	5.710E-11
10	5632.70	5.140E-10	4.920E-10	3.360E-10	2.960E-10	1.900E-10	1.030E-10	9.280E-11	5.320E-11
11	6437.40	4.240E-10	4.010E-10	2.870E-10	2.490E-10	1.620E-10	9.170E-11	8.460E-11	4.960E-11
12	7242.10	3.580E-10	3.350E-10	2.480E-10	2.130E-10	1.410E-10	8.230E-11	7.750E-11	4.630E-11
13	8046.80	3.080E-10	2.860E-10	2.180E-10	1.850E-10	1.730E-10	8.270E-11	1.090E-10	4.320E-11
14	12070.10	1.740E-10	1.570E-10	1.320E-10	1.070E-10	9.740E-11	5.530E-11	6.940E-11	3.150E-11
15	16093.49	1.160E-10	1.020E-10	9.070E-11	7.250E-11	6.470E-11	4.040E-11	5.910E-11	9.160E-11
16	24140.29	6.480E-11	5.490E-11	5.240E-11	4.080E-11	3.580E-11	2.510E-11	3.460E-11	5.260E-11
17	32187.00	4.230E-11	3.520E-11	3.530E-11	2.760E-11	2.350E-11	2.180E-11	2.460E-11	3.490E-11
18	40233.79	3.000E-11	2.470E-11	2.570E-11	2.110E-11	1.680E-11	2.000E-11	1.820E-11	2.510E-11
19	48280.48	2.260E-11	1.840E-11	1.970E-11	1.590E-11	1.280E-11	1.230E-11	1.070E-11	1.710E-11
20	56327.29	1.760E-11	1.430E-11	1.620E-11	1.240E-11	9.440E-12	8.470E-12	8.100E-12	1.500E-11
21	64373.99	1.410E-11	1.140E-11	1.310E-11	9.940E-12	6.800E-12	6.520E-12	6.330E-12	1.260E-11
22	72420.75	1.150E-11	9.240E-12	1.080E-11	7.650E-12	5.430E-12	5.140E-12	5.670E-12	9.340E-12
23	80467.44	9.480E-12	7.650E-12	9.040E-12	6.340E-12	4.500E-12	4.120E-12	4.140E-12	8.160E-12

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	1.740E-16	1.130E-12	6.760E-12	5.630E-12	1.140E-12	5.630E-12	3.600E-11	4.860E-11
2	402.30	7.270E-19	1.900E-11	1.290E-10	1.000E-10	4.230E-11	9.600E-11	6.370E-10	1.190E-09
3	804.70	1.140E-13	6.080E-12	9.570E-11	4.900E-11	8.810E-11	5.020E-11	2.990E-10	1.540E-09
4	1207.00	1.590E-12	7.910E-12	7.670E-11	3.700E-11	7.850E-11	6.670E-11	2.340E-10	1.750E-09
5	1609.40	5.530E-12	1.580E-11	7.220E-11	4.300E-11	8.090E-11	1.090E-10	2.810E-10	1.510E-09
6	2414.00	1.700E-11	2.920E-11	7.020E-11	6.290E-11	1.130E-10	1.810E-10	3.480E-10	1.070E-09
7	3218.70	2.420E-11	3.420E-11	6.540E-11	7.310E-11	1.340E-10	2.050E-10	3.470E-10	7.950E-10
8	4023.40	2.680E-11	3.490E-11	5.960E-11	7.520E-11	1.370E-10	2.030E-10	3.190E-10	6.160E-10
9	4828.10	2.680E-11	3.350E-11	5.390E-11	7.270E-11	1.320E-10	1.900E-10	2.850E-10	4.950E-10
10	5632.70	2.600E-11	3.170E-11	4.910E-11	6.930E-11	1.240E-10	1.750E-10	2.540E-10	4.110E-10
11	6437.40	2.490E-11	2.990E-11	4.500E-11	6.570E-11	1.160E-10	1.610E-10	2.260E-10	3.490E-10
12	7242.10	2.370E-11	2.820E-11	4.150E-11	6.220E-11	1.090E-10	1.490E-10	2.050E-10	3.010E-10
13	8046.80	2.240E-11	2.650E-11	3.650E-11	5.870E-11	1.020E-10	1.370E-10	1.860E-10	2.630E-10
14	12070.10	1.670E-11	1.970E-11	2.770E-11	4.380E-11	7.260E-11	9.450E-11	1.210E-10	1.500E-10
15	16093.49	1.300E-11	1.540E-11	2.160E-11	3.420E-11	5.470E-11	7.000E-11	8.710E-11	1.240E-10
16	24140.29	8.730E-12	1.050E-11	1.470E-11	2.320E-11	3.520E-11	4.400E-11	5.270E-11	7.020E-11
17	32187.00	6.510E-12	7.910E-12	1.110E-11	1.720E-11	2.520E-11	3.660E-11	4.580E-11	4.710E-11
18	40233.79	5.100E-12	6.240E-12	8.720E-12	1.700E-11	2.430E-11	2.730E-11	3.350E-11	3.420E-11
19	48280.48	4.120E-12	5.060E-12	7.070E-12	1.350E-11	1.890E-11	2.130E-11	2.530E-11	2.630E-11
20	56327.29	3.420E-12	4.220E-12	5.890E-12	1.190E-11	1.510E-11	1.720E-11	2.060E-11	2.090E-11
21	64373.99	5.280E-12	3.580E-12	5.000E-12	9.170E-12	1.240E-11	1.420E-11	1.690E-11	1.710E-11
22	72420.75	6.020E-12	3.090E-12	4.310E-12	7.780E-12	1.040E-11	1.190E-11	1.410E-11	1.420E-11
23	80467.44	5.070E-12	2.700E-12	3.760E-12	6.670E-12	8.790E-12	1.010E-11	1.200E-11	1.260E-11

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TABLE 4.1-6
RELATIVE DEPOSITION CONCENTRATIONS PER UNIT
EMISSION FOR MAIN STACK FOR
JANUARY - MARCH 1983

UNDEPLETED X/Q FOR THE REACTOR BUILDING VENT FOR 4/1/83 TO 6/30/83

RECPTR NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	1.820E-05	2.110E-05	2.570E-05	2.270E-05	3.640E-05	2.340E-05	2.740E-05	2.600E-05
2	402.30	5.340E-06	6.190E-06	7.690E-06	6.670E-06	1.070E-05	6.810E-06	8.030E-06	7.640E-06
3	804.70	1.700E-06	2.010E-06	2.550E-06	2.190E-06	3.480E-06	2.360E-06	2.580E-06	2.530E-06
4	1207.00	9.060E-07	1.050E-06	1.400E-06	1.180E-06	1.870E-06	1.270E-06	1.370E-06	1.390E-06
5	1609.40	5.860E-07	6.740E-07	9.110E-07	7.600E-07	1.210E-06	8.200E-07	8.780E-07	9.050E-07
6	2414.00	3.190E-07	3.700E-07	4.940E-07	4.190E-07	6.700E-07	4.460E-07	4.920E-07	5.000E-07
7	3218.70	2.090E-07	2.450E-07	3.210E-07	2.760E-07	4.410E-07	2.920E-07	3.220E-07	3.290E-07
8	4023.40	1.500E-07	1.780E-07	2.300E-07	2.000E-07	3.200E-07	2.110E-07	2.400E-07	2.390E-07
9	4828.10	1.160E-07	1.380E-07	1.770E-07	1.550E-07	2.470E-07	1.630E-07	1.860E-07	1.850E-07
10	5632.70	9.260E-08	1.110E-07	1.420E-07	1.250E-07	1.990E-07	1.310E-07	1.500E-07	1.490E-07
11	6437.40	7.660E-08	9.180E-08	1.170E-07	1.030E-07	1.650E-07	1.080E-07	1.250E-07	1.230E-07
12	7242.10	6.480E-08	7.790E-08	9.870E-08	8.750E-08	1.400E-07	9.130E-08	1.060E-07	1.050E-07
13	8046.80	5.590E-08	6.730E-08	8.500E-08	7.560E-08	1.210E-07	7.860E-08	9.220E-08	9.030E-08
14	12070.10	3.230E-08	3.900E-08	4.890E-08	4.370E-08	7.010E-08	4.560E-08	5.380E-08	5.230E-08
15	16093.49	2.200E-08	2.670E-08	3.320E-08	2.990E-08	4.800E-08	3.060E-08	3.720E-08	3.590E-08
16	24140.29	1.290E-08	1.570E-08	1.920E-08	1.760E-08	2.830E-08	1.790E-08	2.200E-08	2.160E-08
17	32187.00	8.910E-09	1.090E-08	1.320E-08	1.220E-08	1.960E-08	1.230E-08	1.530E-08	1.450E-08
18	40233.79	6.720E-09	8.250E-09	9.870E-09	9.190E-09	1.480E-08	9.240E-09	1.160E-08	1.090E-08
19	48280.48	5.380E-09	6.620E-09	7.860E-09	7.360E-09	1.180E-08	7.380E-09	9.330E-09	8.720E-09
20	56327.29	4.460E-09	5.490E-09	6.470E-09	6.100E-09	9.800E-09	6.100E-09	7.750E-09	7.210E-09
21	64373.99	3.790E-09	4.670E-09	5.470E-09	5.180E-09	8.320E-09	5.170E-09	6.600E-09	6.110E-09
22	72420.75	3.280E-09	4.060E-09	4.720E-09	4.490E-09	7.200E-09	4.480E-09	5.730E-09	5.280E-09
23	80467.44	2.890E-09	3.580E-09	4.130E-09	3.950E-09	6.330E-09	3.930E-09	5.040E-09	4.630E-09

RECPTR NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	3.410E-05	6.300E-05	8.440E-05	1.000E-04	4.830E-05	2.500E-05	1.960E-05	2.160E-05
2	402.30	9.970E-06	1.850E-05	2.470E-05	2.920E-05	1.410E-05	7.400E-06	5.720E-06	6.440E-06
3	804.70	3.150E-06	6.000E-06	7.790E-06	8.970E-06	4.460E-06	2.410E-06	1.940E-06	2.190E-06
4	1207.00	1.690E-06	3.190E-06	4.140E-06	4.670E-06	2.430E-06	1.340E-06	1.060E-06	1.190E-06
5	1609.40	1.100E-06	2.050E-06	2.670E-06	2.980E-06	1.580E-06	8.880E-07	6.940E-07	7.740E-07
6	2414.00	6.190E-07	1.140E-06	1.510E-06	1.710E-06	8.920E-07	4.910E-07	3.780E-07	4.200E-07
7	3218.70	4.150E-07	7.580E-07	1.010E-06	1.170E-06	5.940E-07	3.220E-07	2.460E-07	2.730E-07
8	4023.40	3.050E-07	5.540E-07	7.460E-07	8.660E-07	4.340E-07	2.330E-07	1.770E-07	1.960E-07
9	4828.10	2.370E-07	4.290E-07	5.800E-07	6.770E-07	3.380E-07	1.800E-07	1.360E-07	1.510E-07
10	5632.70	1.920E-07	3.460E-07	4.700E-07	5.500E-07	2.730E-07	1.450E-07	1.090E-07	1.210E-07
11	6437.40	1.600E-07	2.880E-07	3.920E-07	4.600E-07	2.280E-07	1.200E-07	9.050E-08	9.980E-08
12	7242.10	1.360E-07	2.440E-07	3.340E-07	3.940E-07	1.940E-07	1.020E-07	7.640E-08	8.420E-08
13	8046.80	1.180E-07	2.120E-07	2.900E-07	3.430E-07	1.680E-07	8.800E-08	6.580E-08	7.250E-08
14	12070.10	6.940E-08	1.230E-07	1.700E-07	2.030E-07	9.860E-08	5.110E-08	3.770E-08	4.150E-08
15	16093.49	4.790E-08	8.450E-08	1.180E-07	1.410E-07	6.800E-08	3.500E-08	2.560E-08	2.810E-08
16	24140.29	2.860E-08	5.010E-08	7.050E-08	8.550E-08	4.060E-08	2.060E-08	1.500E-08	1.630E-08
17	32187.00	1.990E-08	3.470E-08	4.910E-08	5.990E-08	2.820E-08	1.420E-08	1.030E-08	1.110E-08
18	40233.79	1.510E-08	2.630E-08	3.730E-08	4.570E-08	2.130E-08	1.070E-08	7.720E-09	8.340E-09
19	48280.48	1.210E-08	2.110E-08	3.000E-08	3.690E-08	1.710E-08	8.510E-09	6.150E-09	6.640E-09
20	56327.29	1.010E-08	1.750E-08	2.500E-08	3.080E-08	1.420E-08	7.020E-09	5.080E-09	5.470E-09
21	64373.99	8.590E-09	1.490E-08	2.130E-08	2.630E-08	1.210E-08	5.910E-09	4.300E-09	4.620E-09
22	72420.75	7.450E-09	1.300E-08	1.850E-08	2.290E-08	1.050E-08	5.130E-09	3.710E-09	3.990E-09
23	80467.44	6.550E-09	1.140E-08	1.630E-08	2.020E-08	9.210E-09	4.470E-09	3.260E-09	3.490E-09

DEPLETED X/Q FOR THE REACTOR BUILDING VENT FOR 4/1/83 TO 6/30/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	1.730E-05	1.990E-05	2.450E-05	2.130E-05	3.420E-05	2.210E-05	2.550E-05	2.440E-05
2	402.30	5.010E-06	5.720E-06	7.210E-06	6.140E-06	9.880E-06	6.330E-06	7.310E-06	7.030E-06
3	804.70	1.570E-06	1.810E-06	2.350E-06	1.980E-06	3.140E-06	2.150E-06	2.290E-06	2.280E-06
4	1207.00	8.200E-07	9.380E-07	1.260E-06	1.040E-06	1.660E-06	1.140E-06	1.190E-06	1.230E-06
5	1609.40	5.240E-07	5.920E-07	8.130E-07	6.660E-07	1.060E-06	7.260E-07	7.540E-07	7.900E-07
6	2414.00	2.790E-07	3.170E-07	4.300E-07	3.570E-07	5.710E-07	3.850E-07	4.090E-07	4.250E-07
7	3218.70	1.790E-07	2.050E-07	2.740E-07	2.300E-07	3.670E-07	2.470E-07	2.660E-07	2.730E-07
8	4023.40	1.270E-07	1.460E-07	1.930E-07	1.630E-07	2.610E-07	1.750E-07	1.890E-07	1.940E-07
9	4828.10	9.590E-08	1.100E-07	1.460E-07	1.230E-07	1.970E-07	1.320E-07	1.440E-07	1.470E-07
10	5632.70	7.580E-08	8.740E-08	1.150E-07	9.760E-08	1.560E-07	1.050E-07	1.140E-07	1.160E-07
11	6437.40	6.190E-08	7.130E-08	9.380E-08	7.950E-08	1.270E-07	8.530E-08	9.260E-08	9.460E-08
12	7242.10	5.170E-08	5.950E-08	7.820E-08	6.630E-08	1.060E-07	7.100E-08	7.720E-08	7.880E-08
13	8046.80	4.410E-08	5.070E-08	6.650E-08	5.630E-08	9.020E-08	6.020E-08	6.570E-08	6.700E-08
14	12070.10	2.420E-08	2.750E-08	3.610E-08	3.040E-08	4.880E-08	3.240E-08	3.520E-08	3.610E-08
15	16093.49	1.570E-08	1.770E-08	2.330E-08	1.950E-08	3.130E-08	2.080E-08	2.250E-08	2.310E-08
16	24140.29	8.520E-09	9.410E-09	1.240E-08	1.030E-08	1.650E-08	1.100E-08	1.160E-08	1.210E-08
17	32187.00	5.510E-09	5.960E-09	7.840E-09	6.430E-09	1.040E-08	6.970E-09	7.160E-09	7.500E-09
18	40233.79	3.930E-09	4.170E-09	5.490E-09	4.450E-09	7.180E-09	4.850E-09	4.860E-09	5.140E-09
19	48280.48	2.980E-09	3.110E-09	4.100E-09	3.280E-09	5.310E-09	3.610E-09	3.530E-09	3.760E-09
20	56327.29	2.350E-09	2.420E-09	3.190E-09	2.520E-09	4.080E-09	2.790E-09	2.670E-09	2.860E-09
21	64373.99	1.920E-09	1.940E-09	2.550E-09	2.000E-09	3.240E-09	2.220E-09	2.080E-09	2.240E-09
22	72420.75	1.600E-09	1.600E-09	2.090E-09	1.620E-09	2.630E-09	1.820E-09	1.660E-09	1.870E-09
23	80467.44	1.360E-09	1.340E-09	1.750E-09	1.340E-09	2.180E-09	1.510E-09	1.350E-09	1.470E-09

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	3.160E-05	5.870E-05	7.800E-05	9.180E-05	4.490E-05	2.350E-05	1.860E-05	2.050E-05
2	402.30	9.000E-06	1.690E-05	2.220E-05	2.590E-05	1.280E-05	6.830E-06	5.340E-06	6.010E-06
3	804.70	2.770E-06	5.340E-06	6.830E-06	7.730E-06	3.950E-06	2.180E-06	1.780E-06	2.000E-06
4	1207.00	1.460E-06	2.790E-06	3.570E-06	3.950E-06	2.110E-06	1.190E-06	9.580E-07	1.070E-06
5	1609.40	9.310E-07	1.770E-06	2.260E-06	2.470E-06	1.360E-06	7.760E-07	6.170E-07	6.890E-07
6	2414.00	5.100E-07	9.540E-07	1.240E-06	1.370E-06	7.400E-07	4.170E-07	3.280E-07	3.640E-07
7	3218.70	3.320E-07	6.180E-07	8.080E-07	9.050E-07	4.800E-07	2.670E-07	2.090E-07	2.320E-07
8	4023.40	2.370E-07	4.410E-07	5.780E-07	6.520E-07	3.420E-07	1.890E-07	1.480E-07	1.640E-07
9	4828.10	1.800E-07	3.340E-07	4.390E-07	4.970E-07	2.600E-07	1.430E-07	1.120E-07	1.240E-07
10	5632.70	1.430E-07	2.640E-07	3.480E-07	3.940E-07	2.060E-07	1.130E-07	9.860E-08	9.780E-08
11	6437.40	1.160E-07	2.150E-07	2.840E-07	3.210E-07	1.680E-07	9.220E-08	7.220E-08	7.960E-08
12	7242.10	9.720E-08	1.790E-07	2.370E-07	2.690E-07	1.410E-07	7.690E-08	6.010E-08	6.630E-08
13	8046.80	8.270E-08	1.520E-07	2.010E-07	2.290E-07	1.200E-07	6.540E-08	5.110E-08	5.630E-08
14	12070.10	4.440E-08	9.180E-08	1.080E-07	1.220E-07	6.450E-08	3.530E-08	2.760E-08	3.040E-08
15	16093.49	2.820E-08	5.220E-08	6.860E-08	7.720E-08	4.120E-08	2.260E-08	1.790E-08	1.960E-08
16	24140.29	1.450E-08	2.710E-08	3.530E-08	3.930E-08	2.140E-08	1.180E-08	9.520E-09	1.030E-08
17	32187.00	8.860E-09	1.680E-08	2.140E-08	2.360E-08	1.320E-08	7.340E-09	6.040E-09	6.510E-09
18	40233.79	5.950E-09	1.140E-08	1.440E-08	1.560E-08	8.910E-09	5.020E-09	4.230E-09	4.540E-09
19	48280.48	4.270E-09	8.330E-09	1.030E-08	1.100E-08	6.440E-09	3.660E-09	3.160E-09	3.380E-09
20	56327.29	3.180E-09	6.320E-09	7.680E-09	8.040E-09	4.840E-09	2.770E-09	2.450E-09	2.610E-09
21	64373.99	2.450E-09	4.950E-09	5.900E-09	6.080E-09	3.740E-09	2.170E-09	1.960E-09	2.080E-09
22	72420.75	1.930E-09	3.980E-09	4.650E-09	4.720E-09	2.970E-09	1.730E-09	1.610E-09	1.700E-09
23	80467.44	1.550E-09	3.260E-09	3.730E-09	3.730E-09	2.400E-09	1.410E-09	1.340E-09	1.420E-09

TABLE 4.1-8

DEPLETED RELATIVE CONCENTRATIONS PER UNIT
EMISSION FOR REACTOR BUILDING VENT FOR
APRIL - JUNE 1983

DEPOSITION FACTORS FOR THE REACTOR BUILDING VENT FOR 4/1/83 TO 6/30/83

RECPTR NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	4.550E-08	3.510E-08	4.490E-08	3.270E-08	5.940E-08	7.280E-08	3.810E-08	5.150E-08
2	402.30	1.330E-08	1.010E-08	1.330E-08	9.460E-09	1.710E-08	2.060E-08	1.110E-08	1.490E-08
3	804.70	4.190E-09	3.220E-09	4.390E-09	3.120E-09	5.530E-09	6.850E-09	3.560E-09	4.800E-09
4	1207.00	2.190E-09	1.680E-09	2.330E-09	1.660E-09	2.910E-09	3.620E-09	1.880E-09	2.580E-09
5	1609.40	1.390E-09	1.070E-09	1.480E-09	1.070E-09	1.850E-09	2.300E-09	1.200E-09	1.660E-09
6	2414.00	7.370E-10	5.700E-10	7.770E-10	5.660E-10	9.870E-10	1.230E-09	6.410E-10	8.910E-10
7	3218.70	4.710E-10	3.650E-10	4.940E-10	3.610E-10	6.330E-10	7.900E-10	4.100E-10	5.720E-10
8	4023.40	3.340E-10	2.590E-10	3.480E-10	2.550E-10	4.490E-10	5.620E-10	2.910E-10	4.060E-10
9	4828.10	2.520E-10	1.960E-10	2.620E-10	1.930E-10	3.390E-10	4.270E-10	2.200E-10	3.080E-10
10	5632.70	1.990E-10	1.550E-10	2.070E-10	1.520E-10	2.680E-10	3.380E-10	1.740E-10	2.430E-10
11	6437.40	1.620E-10	1.270E-10	1.680E-10	1.240E-10	2.180E-10	2.750E-10	1.420E-10	1.980E-10
12	7242.10	1.350E-10	1.060E-10	1.400E-10	1.030E-10	1.820E-10	2.290E-10	1.180E-10	1.650E-10
13	8046.80	1.150E-10	9.020E-11	1.190E-10	8.790E-11	1.550E-10	1.950E-10	1.010E-10	1.410E-10
14	12070.10	6.330E-11	4.940E-11	6.480E-11	4.760E-11	8.380E-11	1.050E-10	5.450E-11	7.580E-11
15	16093.49	4.130E-11	3.220E-11	4.200E-11	3.080E-11	5.410E-11	6.740E-11	3.520E-11	4.860E-11
16	24140.29	2.240E-11	1.740E-11	2.250E-11	1.650E-11	2.890E-11	3.570E-11	1.870E-11	2.540E-11
17	32187.00	1.460E-11	1.120E-11	1.450E-11	1.050E-11	1.840E-11	2.240E-11	1.180E-11	1.580E-11
18	40233.79	1.050E-11	7.990E-12	1.030E-11	7.380E-12	1.290E-11	1.560E-11	8.270E-12	1.090E-11
19	48280.48	7.990E-12	6.060E-12	7.800E-12	5.540E-12	9.660E-12	1.150E-11	6.170E-12	7.960E-12
20	56327.29	6.340E-12	4.780E-12	6.140E-12	4.320E-12	7.520E-12	8.860E-12	4.780E-12	6.060E-12
21	64373.99	5.190E-12	3.890E-12	4.970E-12	3.470E-12	6.040E-12	7.030E-12	3.820E-12	4.760E-12
22	72420.75	4.350E-12	3.240E-12	4.140E-12	2.860E-12	4.970E-12	5.730E-12	3.130E-12	3.840E-12
23	80467.44	3.710E-12	2.750E-12	3.500E-12	2.400E-12	4.170E-12	4.750E-12	2.620E-12	3.150E-12

RECPTR NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	5.500E-08	2.040E-07	2.480E-07	1.590E-07	1.050E-07	4.290E-08	4.080E-08	4.200E-08
2	402.30	1.570E-08	5.850E-08	7.050E-08	4.520E-08	2.990E-08	1.250E-08	1.170E-08	1.230E-08
3	804.70	5.000E-09	1.830E-08	2.160E-08	1.360E-08	9.130E-09	4.050E-09	3.880E-09	4.050E-09
4	1207.00	2.650E-09	9.380E-09	1.130E-08	7.010E-09	4.840E-09	2.190E-09	2.090E-09	2.180E-09
5	1609.40	1.690E-09	5.870E-09	7.130E-09	4.410E-09	3.100E-09	1.410E-09	1.350E-09	1.400E-09
6	2414.00	9.160E-10	3.190E-09	3.910E-09	2.430E-09	1.700E-09	7.540E-10	7.160E-10	7.450E-10
7	3218.70	5.930E-10	2.080E-09	2.550E-09	1.600E-09	1.100E-09	4.830E-10	4.570E-10	4.750E-10
8	4023.40	4.220E-10	1.490E-09	1.830E-09	1.150E-09	7.900E-10	3.420E-10	3.230E-10	3.360E-10
9	4828.10	3.200E-10	1.130E-09	1.390E-09	8.730E-10	6.010E-10	2.590E-10	2.450E-10	2.540E-10
10	5632.70	2.530E-10	8.900E-10	1.100E-09	6.920E-10	4.760E-10	2.040E-10	1.940E-10	2.000E-10
11	6437.40	2.070E-10	7.250E-10	8.970E-10	5.650E-10	3.890E-10	1.660E-10	1.580E-10	1.630E-10
12	7242.10	1.720E-10	6.050E-10	7.490E-10	4.720E-10	3.250E-10	1.390E-10	1.320E-10	1.360E-10
13	8046.80	1.470E-10	5.150E-10	6.380E-10	4.020E-10	2.770E-10	1.180E-10	1.120E-10	1.150E-10
14	12070.10	7.870E-11	2.760E-10	3.410E-10	2.150E-10	1.490E-10	6.340E-11	6.050E-11	6.250E-11
15	16093.49	5.030E-11	1.750E-10	2.170E-10	1.360E-10	9.540E-11	4.070E-11	3.910E-11	4.020E-11
16	24140.29	2.610E-11	9.100E-11	1.120E-10	6.980E-11	4.950E-11	2.130E-11	2.090E-11	2.120E-11
17	32187.00	1.610E-11	5.600E-11	6.780E-11	4.210E-11	3.040E-11	1.330E-11	1.330E-11	1.330E-11
18	40233.79	1.100E-11	3.810E-11	4.550E-11	2.800E-11	2.050E-11	9.100E-12	9.290E-12	9.280E-12
19	48280.48	7.990E-12	2.770E-11	3.250E-11	1.990E-11	1.480E-11	6.670E-12	6.930E-12	6.890E-12
20	56327.29	6.040E-12	2.100E-11	2.420E-11	1.470E-11	1.110E-11	5.080E-12	5.380E-12	5.320E-12
21	64373.99	4.710E-12	1.640E-11	1.860E-11	1.120E-11	8.560E-12	3.990E-12	4.300E-12	4.230E-12
22	72420.75	3.770E-12	1.320E-11	1.470E-11	8.780E-12	6.780E-12	3.210E-12	3.530E-12	3.450E-12
23	80467.44	3.070E-12	1.080E-11	1.180E-11	7.000E-12	5.470E-12	2.630E-12	2.940E-12	2.870E-12

TABLE 4.1-9
RELATIVE DEPOSITION CONCENTRATIONS PER UNIT
EMISSION FOR REACTOR BUILDING VENT FOR
APRIL - JUNE 1983

UNDEPLETED X/Q FOR THE MAIN STACK FOR 4/1/83 TO 6/30/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	2.400E-08	2.260E-08	5.170E-08	5.500E-08	1.570E-08	2.040E-08	1.190E-08	1.530E-09
2	402.30	4.420E-07	4.040E-07	2.700E-07	3.140E-07	1.500E-07	1.960E-07	1.110E-07	2.950E-08
3	804.70	2.950E-07	2.950E-07	1.210E-07	1.120E-07	6.280E-08	5.500E-08	3.960E-08	1.620E-08
4	1207.00	2.130E-07	4.110E-07	9.610E-08	1.290E-07	5.310E-08	4.130E-08	2.320E-08	9.520E-09
5	1609.40	2.320E-07	4.540E-07	8.950E-08	1.380E-07	5.100E-08	4.240E-08	2.260E-08	9.050E-09
6	2414.00	1.600E-07	2.340E-07	6.160E-08	7.750E-08	4.530E-08	3.920E-08	2.330E-08	1.070E-08
7	3218.70	1.080E-07	1.500E-07	4.470E-08	7.300E-08	3.980E-08	3.380E-08	2.230E-08	1.130E-08
8	4023.40	7.810E-08	1.070E-07	3.430E-08	5.700E-08	3.450E-08	2.880E-08	2.060E-08	1.080E-08
9	4828.10	6.020E-08	8.110E-08	2.740E-08	4.630E-08	3.000E-08	2.470E-08	1.890E-08	1.000E-08
10	5632.70	4.840E-08	6.450E-08	2.260E-08	3.860E-08	2.640E-08	2.150E-08	1.730E-08	9.160E-09
11	6437.40	4.010E-08	5.310E-08	1.900E-08	3.290E-08	2.340E-08	1.900E-08	1.600E-08	8.390E-09
12	7242.10	3.390E-08	4.480E-08	1.640E-08	2.850E-08	2.090E-08	1.690E-08	1.480E-08	7.720E-09
13	8046.80	2.930E-08	3.860E-08	1.430E-08	2.500E-08	3.210E-08	1.650E-08	2.370E-08	7.120E-09
14	12070.10	1.700E-08	2.210E-08	8.530E-09	1.530E-08	1.930E-08	1.070E-08	1.670E-08	5.020E-09
15	16093.49	1.160E-08	1.500E-08	5.940E-09	1.070E-08	1.340E-08	7.800E-09	1.730E-08	2.190E-08
16	24140.29	6.910E-09	8.780E-09	3.560E-09	6.500E-09	8.070E-09	4.930E-09	1.130E-08	1.360E-08
17	32187.00	4.830E-09	6.080E-09	2.500E-09	4.670E-09	5.660E-09	4.090E-09	9.100E-09	9.670E-09
18	40233.79	3.670E-09	4.590E-09	1.910E-09	3.920E-09	4.300E-09	3.770E-09	7.370E-09	7.450E-09
19	48280.48	2.950E-09	3.680E-09	1.540E-09	3.140E-09	3.460E-09	3.170E-09	8.030E-09	6.060E-09
20	56327.29	2.450E-09	3.050E-09	1.300E-09	2.600E-09	3.070E-09	2.630E-09	6.670E-09	5.080E-09
21	64373.99	2.090E-09	2.590E-09	1.100E-09	2.210E-09	2.600E-09	2.230E-09	5.680E-09	4.360E-09
22	72420.75	1.820E-09	2.250E-09	9.610E-10	1.930E-09	2.250E-09	1.940E-09	4.920E-09	3.810E-09
23	80467.44	1.610E-09	1.980E-09	8.490E-10	1.700E-09	1.970E-09	1.700E-09	4.330E-09	3.380E-09

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	2.740E-09	9.570E-09	4.440E-09	2.520E-09	2.790E-09	4.840E-09	4.040E-09	9.530E-09
2	402.30	4.790E-08	1.670E-07	7.680E-08	4.540E-08	4.800E-08	8.290E-08	7.100E-08	2.070E-07
3	804.70	2.030E-08	6.340E-08	2.940E-08	1.890E-08	1.630E-08	3.390E-08	2.730E-08	1.060E-07
4	1207.00	1.410E-08	3.670E-08	1.840E-08	9.620E-09	8.200E-09	2.090E-08	1.440E-08	1.020E-07
5	1609.40	1.620E-08	3.610E-08	1.900E-08	8.430E-09	7.650E-09	1.830E-08	1.380E-08	9.110E-08
6	2414.00	2.220E-08	3.890E-08	2.120E-08	9.230E-09	8.690E-09	1.600E-08	1.470E-08	7.070E-08
7	3218.70	2.440E-08	3.790E-08	2.080E-08	9.730E-09	9.270E-09	1.450E-08	1.440E-08	5.600E-08
8	4023.40	2.400E-08	3.490E-08	1.930E-08	9.460E-09	9.140E-09	1.320E-08	1.340E-08	4.560E-08
9	4828.10	2.240E-08	3.130E-08	1.750E-08	8.820E-09	8.620E-09	1.200E-08	1.220E-08	3.820E-08
10	5632.70	2.060E-08	2.810E-08	1.590E-08	8.160E-09	8.070E-09	1.110E-08	1.110E-08	3.270E-08
11	6437.40	1.900E-08	2.530E-08	1.440E-08	7.550E-09	7.540E-09	1.020E-08	1.010E-08	2.850E-08
12	7242.10	1.760E-08	2.300E-08	1.320E-08	7.010E-09	7.060E-09	9.530E-09	9.290E-09	2.510E-08
13	8046.80	1.620E-08	2.090E-08	1.220E-08	6.520E-09	6.610E-09	8.910E-09	8.560E-09	2.240E-08
14	12070.10	1.130E-08	1.420E-08	8.550E-09	4.700E-09	4.880E-09	6.620E-09	6.000E-09	1.440E-08
15	16093.49	8.520E-09	1.060E-08	6.520E-09	3.650E-09	3.850E-09	5.290E-09	4.850E-09	1.230E-08
16	24140.29	5.540E-09	6.930E-09	4.380E-09	2.510E-09	2.700E-09	3.780E-09	3.160E-09	7.540E-09
17	32187.00	4.070E-09	5.180E-09	3.320E-09	1.940E-09	2.110E-09	4.010E-09	4.470E-09	5.370E-09
18	40233.79	3.190E-09	4.130E-09	2.670E-09	2.230E-09	3.210E-09	3.260E-09	3.560E-09	4.130E-09
19	48280.48	2.620E-09	3.420E-09	2.220E-09	1.880E-09	2.700E-09	2.730E-09	2.940E-09	3.340E-09
20	56327.29	2.210E-09	2.920E-09	1.900E-09	1.620E-09	2.320E-09	2.350E-09	2.510E-09	2.800E-09
21	64373.99	2.630E-09	2.550E-09	1.660E-09	1.430E-09	2.040E-09	2.070E-09	2.180E-09	2.390E-09
22	72420.75	2.850E-09	2.270E-09	1.480E-09	1.280E-09	1.830E-09	1.840E-09	1.930E-09	2.090E-09
23	80467.44	2.520E-09	2.040E-09	1.330E-09	1.160E-09	1.650E-09	1.660E-09	1.720E-09	1.850E-09

TABLE 4.1-10
UNDEPLETED RELATIVE CONCENTRATIONS PER UNIT
EMISSION FOR MAIN STACK FOR
APRIL - JUNE 1983

DEPLETED X/Q FOR THE MAIN STACK FOR 4/1/83 TO 6/30/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	2.400E-08	2.260E-08	5.170E-08	5.490E-08	1.570E-08	2.040E-08	1.190E-08	1.530E-09
2	402.30	4.420E-07	4.030E-07	2.690E-07	3.130E-07	1.500E-07	1.960E-07	1.110E-07	2.940E-08
3	804.70	2.950E-07	2.940E-07	1.210E-07	1.120E-07	6.270E-08	5.490E-08	3.950E-08	1.620E-08
4	1207.00	2.130E-07	4.100E-07	9.590E-08	1.290E-07	5.300E-08	4.130E-08	2.310E-08	9.490E-09
5	1609.40	2.310E-07	4.520E-07	8.920E-08	1.370E-07	5.090E-08	4.230E-08	2.260E-08	9.020E-09
6	2414.00	1.580E-07	2.320E-07	6.120E-08	9.690E-08	4.510E-08	3.910E-08	2.320E-08	1.070E-08
7	3218.70	1.070E-07	1.480E-07	4.430E-08	7.220E-08	3.950E-08	3.360E-08	2.210E-08	1.120E-08
8	4023.40	7.650E-08	1.050E-07	3.370E-08	5.620E-08	3.420E-08	2.850E-08	2.050E-08	1.080E-08
9	4828.10	5.860E-08	7.890E-08	2.680E-08	4.540E-08	2.960E-08	2.440E-08	1.860E-08	9.890E-09
10	5632.70	4.680E-08	6.240E-08	2.200E-08	3.770E-08	2.590E-08	2.110E-08	1.710E-08	9.020E-09
11	6437.40	3.850E-08	5.110E-08	1.850E-08	3.190E-08	2.290E-08	1.860E-08	1.570E-08	8.230E-09
12	7242.10	3.250E-08	4.280E-08	1.580E-08	2.750E-08	2.040E-08	1.650E-08	1.450E-08	7.550E-09
13	8046.80	2.790E-08	3.660E-08	1.370E-08	2.410E-08	3.080E-08	1.600E-08	2.310E-08	6.930E-09
14	12070.10	1.570E-08	2.040E-08	7.980E-09	1.440E-08	1.800E-08	1.020E-08	1.600E-08	4.800E-09
15	16093.49	1.050E-08	1.340E-08	5.430E-09	9.860E-09	1.220E-08	7.260E-09	1.620E-08	2.060E-08
16	24140.29	5.900E-09	7.390E-09	3.120E-09	5.700E-09	6.880E-09	4.410E-09	1.010E-08	1.220E-08
17	32187.00	3.920E-09	4.820E-09	2.110E-09	3.910E-09	4.540E-09	3.470E-09	7.790E-09	8.250E-09
18	40233.79	2.840E-09	3.440E-09	1.550E-09	2.980E-09	3.250E-09	2.910E-09	6.000E-09	6.020E-09
19	48280.48	2.190E-09	2.610E-09	1.210E-09	2.280E-09	2.470E-09	1.930E-09	3.240E-09	4.620E-09
20	56327.29	1.740E-09	2.050E-09	9.770E-10	1.800E-09	1.770E-09	1.420E-09	2.410E-09	3.650E-09
21	64373.99	1.430E-09	1.650E-09	8.080E-10	1.460E-09	1.240E-09	1.130E-09	1.850E-09	2.950E-09
22	72420.75	1.190E-09	1.370E-09	6.830E-10	1.160E-09	9.760E-10	9.270E-10	1.460E-09	2.430E-09
23	80467.44	1.010E-09	1.150E-09	5.860E-10	9.730E-10	8.020E-10	7.710E-10	1.170E-09	2.030E-09

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES SEC/M**3							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	2.740E-09	9.570E-09	4.440E-09	2.520E-09	2.790E-09	4.840E-09	4.040E-09	9.530E-09
2	402.30	4.790E-08	1.670E-07	7.680E-08	4.540E-08	4.800E-08	8.280E-08	7.090E-08	2.070E-07
3	804.70	2.020E-08	6.320E-08	2.930E-08	1.880E-08	1.620E-08	3.380E-08	2.720E-08	1.050E-07
4	1207.00	1.410E-08	3.660E-08	1.830E-08	9.590E-09	8.170E-09	2.080E-08	1.440E-08	1.020E-07
5	1609.40	1.620E-08	3.600E-08	1.900E-08	8.400E-09	7.620E-09	1.820E-08	1.370E-08	9.080E-08
6	2414.00	2.210E-08	3.880E-08	2.110E-08	9.200E-09	8.660E-09	1.590E-08	1.470E-08	7.030E-08
7	3218.70	2.430E-08	3.770E-08	2.070E-08	9.680E-09	9.230E-09	1.440E-08	1.440E-08	5.550E-08
8	4023.40	2.380E-08	3.450E-08	1.910E-08	9.390E-09	9.080E-09	1.310E-08	1.330E-08	4.500E-08
9	4828.10	2.210E-08	3.090E-08	1.730E-08	8.720E-09	8.530E-09	1.190E-08	1.210E-08	3.750E-08
10	5632.70	2.030E-08	2.760E-08	1.560E-08	8.050E-09	7.970E-09	1.090E-08	1.090E-08	3.200E-08
11	6437.40	1.870E-08	2.480E-08	1.420E-08	7.430E-09	7.420E-09	1.010E-08	9.940E-09	2.780E-08
12	7242.10	1.720E-08	2.240E-08	1.290E-08	6.870E-09	6.930E-09	9.360E-09	9.090E-09	2.440E-08
13	8046.80	1.580E-08	2.040E-08	1.190E-08	6.360E-09	6.460E-09	8.720E-09	8.340E-09	2.170E-08
14	12070.10	1.080E-08	1.360E-08	8.180E-09	4.510E-09	4.690E-09	6.390E-09	5.800E-09	1.370E-08
15	16093.49	7.960E-09	9.980E-09	6.150E-09	3.440E-09	3.630E-09	5.030E-09	4.380E-09	1.140E-08
16	24140.29	4.960E-09	6.310E-09	4.000E-09	2.290E-09	2.470E-09	3.490E-09	2.890E-09	6.670E-09
17	32187.00	3.510E-09	4.580E-09	2.940E-09	1.720E-09	1.870E-09	3.560E-09	3.940E-09	4.540E-09
18	40233.79	2.650E-09	3.550E-09	2.290E-09	1.930E-09	2.770E-09	2.800E-09	3.030E-09	3.330E-09
19	48280.48	2.190E-09	2.870E-09	1.850E-09	1.580E-09	2.260E-09	2.260E-09	2.410E-09	2.580E-09
20	56327.29	1.710E-09	2.390E-09	1.530E-09	1.330E-09	1.890E-09	1.880E-09	1.980E-09	2.060E-09
21	64373.99	1.900E-09	2.030E-09	1.300E-09	1.140E-09	1.610E-09	1.590E-09	1.660E-09	1.680E-09
22	72420.75	1.880E-09	1.770E-09	1.120E-09	9.960E-10	1.390E-09	1.370E-09	1.410E-09	1.400E-09
23	80467.44	1.580E-09	1.550E-09	9.820E-10	8.780E-10	1.210E-09	1.200E-09	1.220E-09	1.190E-09

TABLE 4.1-11

DEPLETED RELATIVE CONCENTRATIONS PER UNIT
EMISSION FOR MAIN STACK FOR
APRIL - JUNE 1983

DEPOSITION FACTORS FOR THE MAIN STACK FOR 4/1/83 TO 6/30/83

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		S - (1) 0.0	SSW - (2) 22.5	SW - (3) 45.0	WSW - (4) 67.5	W - (5) 90.0	WNW - (6) 112.5	NW - (7) 135.0	NNW - (8) 157.5
1	201.20	1.530E-10	9.800E-11	1.850E-10	1.530E-10	8.980E-11	1.010E-10	8.210E-11	9.390E-12
2	402.30	2.940E-09	1.600E-09	1.000E-09	9.210E-10	8.340E-10	9.520E-10	7.580E-10	1.790E-10
3	804.70	1.880E-09	9.270E-10	5.700E-10	3.160E-10	3.100E-10	2.660E-10	2.550E-10	9.420E-11
4	1207.00	1.260E-09	1.400E-09	4.710E-10	3.490E-10	2.780E-10	2.050E-10	1.400E-10	5.610E-11
5	1609.40	1.300E-09	1.620E-09	4.360E-10	3.890E-10	2.880E-10	2.210E-10	1.290E-10	5.560E-11
6	2414.00	8.830E-10	8.320E-10	2.970E-10	2.880E-10	2.620E-10	2.190E-10	1.240E-10	6.830E-11
7	3218.70	5.920E-10	5.300E-10	2.150E-10	2.210E-10	2.200E-10	1.950E-10	1.150E-10	7.230E-11
8	4023.40	4.240E-10	3.760E-10	1.630E-10	1.760E-10	1.840E-10	1.690E-10	1.040E-10	6.940E-11
9	4828.10	3.240E-10	2.950E-10	1.290E-10	1.440E-10	1.550E-10	1.470E-10	9.290E-11	6.390E-11
10	5632.70	2.580E-10	2.260E-10	1.060E-10	1.210E-10	1.330E-10	1.290E-10	8.370E-11	5.830E-11
11	6437.40	2.120E-10	1.850E-10	8.860E-11	1.040E-10	1.160E-10	1.140E-10	7.380E-11	5.320E-11
12	7242.10	1.790E-10	1.560E-10	7.560E-11	9.040E-11	1.020E-10	1.020E-10	6.920E-11	4.880E-11
13	8046.80	1.540E-10	1.330E-10	6.560E-11	7.960E-11	1.460E-10	1.010E-10	9.780E-11	4.480E-11
14	12070.10	8.680E-11	7.440E-11	3.800E-11	4.860E-11	8.470E-11	6.530E-11	6.520E-11	3.070E-11
15	16093.49	5.810E-11	4.930E-11	2.570E-11	3.380E-11	5.750E-11	4.720E-11	6.060E-11	7.580E-11
16	24140.29	3.280E-11	2.730E-11	1.460E-11	1.990E-11	3.280E-11	2.910E-11	3.720E-11	4.370E-11
17	32187.00	2.190E-11	1.790E-11	9.760E-12	1.380E-11	2.190E-11	2.390E-11	2.790E-11	2.920E-11
18	40233.79	1.590E-11	1.280E-11	7.130E-12	1.090E-11	1.580E-11	2.080E-11	2.130E-11	2.110E-11
19	48280.48	1.230E-11	9.700E-12	5.520E-12	8.260E-12	1.210E-11	1.340E-11	1.220E-11	1.610E-11
20	56327.29	9.830E-12	7.620E-12	4.430E-12	6.500E-12	8.850E-12	9.670E-12	9.280E-12	1.270E-11
21	64373.99	8.070E-12	6.150E-12	3.640E-12	5.250E-12	6.200E-12	7.620E-12	7.270E-12	1.030E-11
22	72420.75	6.770E-12	5.080E-12	3.060E-12	4.050E-12	4.910E-12	6.150E-12	5.840E-12	8.450E-12
23	80467.44	5.770E-12	4.260E-12	2.610E-12	3.380E-12	4.060E-12	5.060E-12	4.790E-12	7.050E-12

RECPT NO.	DOWNWIND DISTANCE METERS	WEIGHTED AVERAGES 1/M**2							
		N - (9) 180.0	NNE - (10) 202.5	NE - (11) 225.0	ENE - (12) 247.5	E - (13) 270.0	ESE - (14) 292.5	SE - (15) 315.0	SSE - (16) 337.5
1	201.20	2.400E-11	8.340E-11	2.400E-11	1.770E-11	1.770E-11	2.290E-11	1.460E-11	4.980E-11
2	402.30	4.190E-10	1.450E-09	4.150E-10	3.200E-10	3.040E-10	3.940E-10	2.550E-10	1.100E-09
3	804.70	1.730E-10	5.540E-10	1.590E-10	1.350E-10	1.020E-10	1.640E-10	9.520E-11	6.750E-10
4	1207.00	1.130E-10	3.230E-10	1.030E-10	6.790E-11	5.020E-11	9.990E-11	5.480E-11	6.760E-10
5	1609.40	1.180E-10	3.210E-10	1.130E-10	5.680E-11	4.520E-11	8.710E-11	5.940E-11	6.030E-10
6	2414.00	1.340E-10	3.500E-10	1.370E-10	5.780E-11	5.010E-11	8.110E-11	7.230E-11	4.610E-10
7	3218.70	1.320E-10	3.420E-10	1.400E-10	5.930E-11	5.390E-11	7.840E-11	7.420E-11	3.600E-10
8	4023.40	1.220E-10	3.150E-10	1.340E-10	5.710E-11	5.370E-11	7.470E-11	7.030E-11	2.900E-10
9	4828.10	1.090E-10	2.830E-10	1.230E-10	5.310E-11	5.100E-11	6.990E-11	6.450E-11	2.400E-10
10	5632.70	9.810E-11	2.530E-10	1.140E-10	4.910E-11	4.820E-11	6.550E-11	5.890E-11	2.040E-10
11	6437.40	8.820E-11	2.280E-10	1.050E-10	4.550E-11	4.530E-11	6.160E-11	5.390E-11	1.760E-10
12	7242.10	7.990E-11	2.060E-10	9.660E-11	4.230E-11	4.270E-11	5.800E-11	4.950E-11	1.540E-10
13	8046.80	7.260E-11	1.880E-10	8.950E-11	3.930E-11	4.010E-11	5.450E-11	4.560E-11	1.370E-10
14	12070.10	4.840E-11	1.260E-10	6.370E-11	2.830E-11	2.980E-11	4.090E-11	3.180E-11	8.540E-11
15	16093.49	3.520E-11	9.260E-11	4.870E-11	2.180E-11	2.340E-11	3.250E-11	2.400E-11	6.990E-11
16	24140.29	2.190E-11	5.870E-11	3.240E-11	1.480E-11	1.620E-11	2.270E-11	1.570E-11	4.080E-11
17	32187.00	1.550E-11	4.280E-11	2.400E-11	1.120E-11	1.240E-11	2.290E-11	1.940E-11	2.770E-11
18	40233.79	1.180E-11	3.330E-11	1.880E-11	1.250E-11	1.840E-11	1.790E-11	1.470E-11	2.030E-11
19	48280.48	9.370E-12	2.690E-11	1.510E-11	1.020E-11	1.500E-11	1.440E-11	1.160E-11	1.560E-11
20	56327.29	7.680E-12	2.240E-11	1.260E-11	8.580E-12	1.250E-11	1.190E-11	9.440E-12	1.250E-11
21	64373.99	8.850E-12	1.910E-11	1.070E-11	7.340E-12	1.060E-11	1.000E-11	7.840E-12	1.020E-11
22	72420.75	8.940E-12	1.660E-11	9.190E-12	6.380E-12	9.150E-12	8.600E-12	6.640E-12	8.490E-12
23	80467.44	7.560E-12	1.460E-11	8.010E-12	5.610E-12	7.990E-12	7.460E-12	5.690E-12	7.180E-12

TABLE 4.1-12
RELATIVE DEPOSITION CONCENTRATIONS PER UNIT
EMISSION FOR MAIN STACK FOR
APRIL - JUNE 1983

Table 4.2-1

Maximum Individual Locations and Pathways¹
January - June 1983

<u>Pathway</u>	<u>0.5 Miles</u> <u>SE</u>	<u>0.5 Miles</u> <u>NW</u>	<u>2.2 Miles</u> <u>W</u>
Noble Gas Immersion	Yes	Yes	Yes
Inhalation	Yes	Yes	Yes
Fruit & Vegetable Garden	Yes	Yes	Yes
Meat	No	No	No
Cows Milk	No	No	Yes
Goats Milk	No	No	No

-
1. Yes indicates that the pathway is analyzed.
No indicates that it is not considered.

Table 4.2-2

January - June 1983 Gaseous Release Maximum Individual
Doses From All Pathways For Adults (MREM)

<u>Location</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>Skin</u>	<u>Total Body</u>
*0.5 Miles SE	1.01	1.02	1.05	1.02	1.02	1.02	1.77	1.02
0.5 Miles NW	0.189	0.194	0.211	0.193	0.193	0.195	0.334	0.194
2.2 Miles W	0.129	0.131	0.145	0.130	0.130	0.131	0.220	0.130

*Maximum dose location

Table 4.2-3

January - June 1983 Gaseous Release Maximum Individual
Doses From All Pathways For Teenagers (MREM)

<u>Location</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>Skin</u>	<u>Total Body</u>
*0.5 Miles SE	1.01	1.02	1.05	1.02	1.02	1.02	1.77	1.02
0.5 Miles NW	0.190	0.194	0.212	0.194	0.195	0.196	0.334	0.194
2.2 Miles W	0.129	0.131	0.151	0.130	0.131	0.132	0.220	0.131

*Maximum dose location

Table 4.2-4

January - June 1983 Gaseous Release Maximum Individual
Doses From All Pathways For Children (MREM)

<u>Location</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>Skin</u>	<u>Total Body</u>
*0.5 Miles SE	1.01	1.02	1.07	1.02	1.02	1.02	1.77	1.02
0.5 Miles NW	0.193	0.196	0.221	0.196	0.196	0.197	0.334	0.196
29 2.2 Miles W	0.131	0.131	0.170	0.131	0.131	0.132	0.220	0.131

*Maximum dose location

Table 4.2-5

January - June 1983 Gaseous Release Maximum Individual
Doses From All Pathways For Infants (MREM)

<u>Location</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>Skin</u>	<u>Total Body</u>
*0.5 Miles SE	1.00	1.01	1.03	1.01	1.01	1.01	1.77	1.01
0.5 Miles	0.187	0.189	0.199	0.188	0.189	0.188	0.334	0.188
2.2 Miles	0.129	0.130	0.210	0.130	0.129	0.129	0.220	0.130

*Maximum dose location

Table 4.2-6

January - June 1983 Gaseous Release Maximum Individual
Doses 0.5 Miles SE

<u>Age Group</u>	<u>Bone (MREM)</u>	<u>Liver (MREM)</u>	<u>Thyroid (MREM)</u>	<u>Kidney (MREM)</u>	<u>Lung (MREM)</u>	<u>GI-LLI (MREM)</u>	<u>Skin (MREM)</u>	<u>Total Body (MREM)</u>
Adult	1.01	1.02	1.05	1.02	1.02	1.02	1.77	1.02
♂ Teenager	1.01	1.02	1.05	1.02	1.02	1.02	1.77	1.02
Child	1.01	1.02	1.07	1.02	1.02	1.02	1.77	1.02
Infant	1.00	1.01	1.03	1.01	1.01	1.01	1.77	1.01

TABLE 4.3-1
POPULATION DISTRIBUTION

SECTOR	Distance (Miles/Meters)									
	.5	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0
	804.7	2414.0	4023.4	5632.7	7242.0	12070.1	24140.2	40233.6	56327.0	72420.5
S	0.	3.90E+01	2.08E+02	5.30E+01	2.20E+01	2.39E+03	1.66E+04	2.52E+04	7.80E+03	7.12E+02
SSW	1.90E+01	0.	2.30E+01	0.	0.	9.98E+02	1.58E+04	7.80E+03	3.16E+02	3.59E+02
SW	0.	3.90E+01	1.23E+02	6.50E+01	3.49E+02	4.97E+02	1.28E+04	1.42E+05	4.64E+04	4.65E+04
WSW	0.	7.70E+01	2.36E+02	3.00E+00	2.17E+02	2.52E+03	1.18E+04	5.04E+04	1.37E+05	1.85E+05
W	5.80E+01	9.50E+01	4.75E+02	1.25E+03	4.52E+03	9.56E+03	1.76E+04	6.05E+04	1.42E+05	3.78E+05
WNW	1.17E+02	0.	0.	0.	7.11E+02	1.03E+04	2.83E+04	1.65E+05	1.13E+05	1.08E+05
NW	1.90E+01	0.	0.	0.	8.00E+00	5.65E+03	3.96E+04	2.07E+05	8.21E+05	6.36E+05
NWN	0.	0.	0.	0.	1.30E+01	1.55E+03	2.66E+04	2.83E+04	1.04E+05	4.14E+05
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.09E+04
NNE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ENE	0.	0.	0.	0.	0.	0.	5.30E+02	3.48E+03	0.	0.
E	0.	0.	0.	0.	0.	0.	0.	3.29E+03	3.41E+02	0.
ESE	0.	0.	1.50E+01	0.	0.	0.	0.	5.88E+03	1.31E+04	0.
SE	5.70E+02	1.76E+02	4.76E+02	3.	0.	0.	1.24E+03	4.02E+04	5.91E+03	0.
SSE	1.90E+01	2.10E+02	5.30E+02	2.03E+03	8.19E+02	1.39E+03	1.32E+04	1.95E+04	0.	7.12E+02

Table 4.3-2

Population Doses Via Major Pathways Resulting From
Gaseous Effluents During January - June 1983

<u>Pathway</u>	<u>Thyroid (MAN-REM)</u>	<u>Total Body (MAN-REM)</u>
Noble Gas Immersion (gamma)	36.90	36.9
Ground Plane Deposition	1.70	1.70
Inhalation	0.45	0.48

5. OFF-SITE FROM DIRECT RADIATION

Doses due to direct radiation as measured by thermoluminescent dosimeter for the period January - June 1983 were as follows:

	<u>Average Dose Rate uR/hour</u>
Near Plant (0-0.16 Miles from the Plant)	15.4
Exclusion Area (0.25-0.68 Miles from the Plant)	9.6
Distant Neighborhood (0.7-6.5 Miles from Plant)	8.5
Background (8-21 Miles from Plant)	8.0

These measured values indicate a small but measurable dose contribution due to direct radiation at Near Plant Locations (within 0.16 miles) but no statistically significant contribution beyond about 0.25 miles.

REFERENCES

1. "Pilgrim Station Unit 1 Appendix Evaluation" Submitted in Accordance with 10 CFR 50 Appendix I, April 1977.
2. Pilgrim Station Environmental Report, Amendment 4, April 1975, pg. 2-329/330.
3. "An Update of Population Distribution Around the Pilgrim Site," prepared for Boston Edison by HMM Associates, July 31, 1981, ppg. 2-3 and 2-7.

BOSTON EDISON COMPANY
800 BOYLSTON STREET
BOSTON, MASSACHUSETTS 02199

WILLIAM D. HARRINGTON
SENIOR VICE PRESIDENT
NUCLEAR

August 30, 1983

BECo 83- 231

Mr. Thomas E. Murley, Regional Administrator
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

License No. DPR-35
Docket No. 50-293

Radioactive Effluent and Waste Disposal Report
Including Radiological Impact on Humans -
January 1 through June 30, 1983

Dear Sir:

In accordance with 10CFR50.36a(a)(2) and Pilgrim Nuclear Power Station Technical Specification 6.9.C.1, Boston Edison Company hereby submits the Pilgrim Nuclear Power Station Radioactive Effluent and Waste Disposal Report Including Radiological Impact on Humans. The reporting period is from January 1, 1983 through June 30, 1983.

The report format and content are in accordance with NRC Regulatory Guide 1.21, Revision 1, Measuring, Evaluating, and Reporting Radioactivity in Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants, Tables 1A, 1B, 1C, 2A, 2B, 3, 4A-1, 4A-2, and Supplemental Information.

Very truly yours,

WJ Harrington

TFF/mat

Enclosure

cc: Document Control Desk
U.S. Nuclear Regulatory Commission
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