Met-Ed / GPU

Metropolitan Edison Company
Post Office Box 542
Reading Pennsylvania 19640
215 929-3601

Writer's Direct Dial Number

August 30, 1979
GQL 1129

Mr. B. H. Grier, Director
Office of Inspection and Enforcement
Region 1
U. S. Nuclear Regulatory Commission
King of Prussia, Pennsylvania 19406

Dear Sir:

Three Mile Island Nuclear Station Unit 1 & 2 (TMI-1 & TMI-2)
Operating License Nos. DPR-50 and DPR-73
Docket Nos. 50-289 and 50-320
Radioactive Effluent Release Report

In accordance with the requirements of TMI-1 Technical Specifications, Appendix B Section 5.6.1.b, enclosed please find two copies of the TMI-1 Radioactive Effluent Release Report.

Additionally, please find enclosed two copies of the Radioactive Effluent Release Report for TMI-2, although there is no specification requiring this report.

Please be advised that there is no Joint Frequency Table of wind speed and direction versus delta temperature for specific period in the second quarter of 1979 from Unit 2 since there was only one gaseous release (five minutes) in the second quarter (April 3). Other discrepencies are as noted in these reports.

These reports cover the period January 1, 1979 through June 30, 1979.

Sincerely,

/s/ J. G. Herbein

J. G. Herbein
Vice President-Nuclear Operations

JGH:LWH:tas

Enclosures

cc: Mr. Harold Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

A007
S
1/1

7909050408

EFFLUENT AND WASTE DISPOSAL SEMI ANNUAL REPORT
January 1 - June 30, 1979
SUPPLEMENTAL INFORMATION

FACILITY Three Mile Island, Unit I LICENSEE DPR - 50 - 289

1. Regulatory Limits

   a. Fission and activation gases:
   b. Iodines:
   c. Particulates, half-lives > 8 days:
   d. Liquid effluents:

   } Environmental Tech Specs, Article 2.3

2. Maximum Permissible Concentrations

   Provide the MPCs used in determining allowable release rates or concentrations.

   a, Fission and activation gases:
   b. Iodines:
   c. Particulates, half-lives 8 days:
   d. Liquid effluents:

   } 10 CFR, Part 20, Appendix B

3. Average Energy

   Provide the average energy ($\overline{E}$) of the radionuclide mixture in releases of fission and activation gases, if applicable. $\overline{E}_\gamma$ 0.085 MeV and $\overline{E}_\beta$ 0.11 MeV

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: Ge(Li) Spectrometry, Liquid Scintillation
   b. Iodines: Ge(Li) Spectrometry
   c. Particulates: Ge(Li) Spectrometry, Gas Flow Proportional
   d. Liquid effluents: Ge(Li) Spectrometry, Liquid Scintillation

5. Batch Releases

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

   A. Liquid

	1st. Qtr.	2nd. Qtr.
1. Number of batch releases:	46	44
2. Total time period for batch release:	1.89E+4 min.	3.15E+4 min.
3. Maximum time period for a batch release:	1.23E+3 min.	1.29E+3 min.
4. Average time period for batch releases:	4.11E+2 min.	7.17E+2 min.
5. Minimum time period for a batch release:	1.70E+2 min.	2.65E+2 min.
6. Average stream flow during periods of release of effluent into flowing stream:	4.87E+6 ft^3/min.	2.47E+6 ft^3/min.

7909050412

5. Batch Releases (cont.)

B. Gaseous

	1st Qtr.	2nd Qtr.
1. Number of batch releases:	35	17
2. Total time period for batch releases:	9.85E+4 min.	1.36E+5 min.
3. Maximum time period for a batch release:	3.56E+4 min.	6.05E+4 min.
4. Average time period for batch release:	2.82E+3 min.	8.00E+3 min.
5. Minimum time period for a batch release:	6.00E+1 min.	5.40E+2 min.

6. Abnormal Releases

A. Liquid

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

B. Gaseous

1. Number of releases:	1	None
2. Total activity released:	1.27 Ci Noble Gas (Jan., 79)	

TABLE 1A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	UNIT I	First QUARTER	Second QUARTER	EST. TOTAL ERROR, %
A. Fission & activation gases				
1. Total release	Ci	2.14 E+3	9.80 E+1	2.5E+1
2. Average release rate for period	µCi/sec.	2.71E+2	3.45E 0	
3. Percent of Tech Spec limit	%	2.04E+1	8.63E-1	
B. Iodines				
1. Total Iodine-131	Ci	3.82E-3	7.02E-3	2.5E+1
2. Average release rate for period	µCi/sec.	4.85E-4	8.91E-4	
3. Percent of Tech Spec limit	%	8.08E+0	1.49E+1	
C. Particulates				
1. Particulates with half-lives > 8 Days	Ci	8.21E-4	1.54E-4	2.5E+1
2. Average release rate for period	µCi/sec.	1.04E-4	1.95E-5	
3. Percent of Tech Spec limit	%	3.0E-2	5.51E-2	
4. Gross alpha radioactivity	Ci	1.59E-7	<MDA	
D. Tritium				
1. Total release	Ci	2.70E+1	1.52E+1	2.5E+1
2. Average release rate for period	µCi/sec.	3.43E+0	1.93E 0	
3. Percent of Tech Spec limit	%	NA	NA	

TABLE 1B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
GASEOUS EFFLUENTS-GROUND LEVEL RELEASE

Nuclides Released	UNIT I	Continuous Mode First QUARTER	Continuous Mode Second QUARTER	Batch Mode First QUARTER	Batch Mode Second QUARTER
1. Fission gases (1)					(2)
krypton-85	Ci	< MDA	< MDA	<MDA	1.13E-1
krypton-85m	Ci	< MDA	< MDA	8.87E-2	< MDA
krypton-87	Ci	< MDA	< MDA	< MDA	< MDA
krypton-88	Ci	< MDA	< MDA	1.85E-1	< MDA
xenon-133	Ci	1.60E+1	7.08E+1	2.07E+3	2.69E+1
xenon-135	Ci	< MDA	< MDA	2.57E+1	3.35E-5
xenon-135m	Ci	< MDA	< MDA	< MDA	< MDA
xenon-138	Ci	< MDA	< MDA	< MDA	< MDA
Others (specify) ^{133m}Xe	Ci	< MDA	< MDA	7.00E 0	4.28E-2
^{131m}Xe	Ci	< MDA	< MDA	2.42E 0	9.70E-2
^{41}Ar	Ci	< MDA	< MDA	1.82E+1	< MDA
	Ci				
	Ci				
Unidentified	Ci	< MDA	< MDA	NA	NA
Total for period	Ci	1.60E+1	7.08E+1	2.12E+3	2.72E+1

2. Iodines

iodine-131	Ci	8.86E-4	5.85E-3	2.93 E-3	1.17E-3
iodine-133	Ci	<MDA	< MDA	< MDA	4.07E-6
iodine-135	Ci	<MDA	< MDA	< MDA	< MDA
Total for period	Ci	8.86E-4	5.85E-3	2.93E-3	1.17E-3

TABLE 1B (cont.)
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
GASEOUS EFFLUENTS-GROUND LEVEL RELEASES

		Continuous Mode		Batch Mode	
Nuclides Released	UNIT I	First QUARTER	Second QUARTER	First QUARTER	Second QUARTER
3. Particulates (3)					
strontium-89	Ci	<MDA	4.65E-5	<MDA	1.49E-6
strontium-90	Ci	<MDA	1.64E-6	<MDA	1.32E-7
cesium-134	Ci	<MDA	<MDA	<MDA	<MDA
cesium-137	Ci	1.44E-4	7.47E-5	1.03E-4	1.83E-5
barium-lanthanum-140	Ci	<MDA	<MDA	<MDA	<MDA
Others (specify) ^{103}Ru	Ci	5.45E-5	<MDA	<MDA	<MDA
^{60}Co	Ci	<MDA	<MDA	2.75E-5	8.04E-6
^{58}Co	Ci	1.27E-4	2.18E-6	3.47E-4	8.28E-7
^{95}Nb	Ci	<MDA	<MDA	1.79E-5	<MDA
~~Unidentified~~					

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	UNIT I	First QUARTER	Second QUARTER	EST. TOTAL ERROR %
A. Fission and activation products				
1. Total releases (not including tritium, gases, alpha)	Ci	3.64E-2	3.14E-1	2.5E+1
2. Average diluted concentration during period	μCi/ml	1.69E-9	1.32E-8	
3. Percent of applicable limit	%	1.46E+0	1.26E+1	
B. Tritium				
1. Total release	Ci	2.54E+1	1.53E-1	2.5E+1
2. Average diluted concentration during period	μCi/ml	1.30E-6	6.55E-7	
3. Percent of applicable limit	%	4.33E-2	2.18E-2	
C. Dissolved and entrained gases				
1. Total release	Ci	1.00E-2	1.21E-2	2.5E+1
2. Average diluted concentration during period	μCi/ml	5.13E-10	5.17E-10	
3. Percent of applicable limit	%	NA	NA	
D. Gross alpha radioactivity				
1. Total release	Ci	<MDA	<MDA	2.5E+1
E. Volume of waste released (prior to dilution)	liters	1.11E+6	2.84E+7	1.0E+1
F. Volume of dilution water used during period	liters	2.15E+10	2.35E+10	1.0E+1

TABLE 2B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
LIQUID EFFLUENTS

Nuclides Released	UNIT I	Continuous Mode First QUARTER	Continuous Mode Second QUARTER	Batch Mode First (3) QUARTER	Batch Mode Second QUARTER
strontium-89	Ci	<MDA	<MDA	3.30E-4	7.71E-2
strontium-90	Ci	<MDA	<MDA	3.1E-5	2.43E-3
cesium-134	Ci	<MDA	<MDA	3.21E-3	6.31E-3
cesium-137	Ci	<MDA	<MDA	4.55E-3	1.71E-2
iodine-131	Ci	<MDA	<MDA	2.54E-4	1.34E-1
cobalt-58	Ci	<MDA	<MDA	2.13E-2	62E-2
cobalt-60	Ci	<MDA	<MDA	1.19E-3	9.09E-3
iron-59	Ci	<MDA	<MDA	1.33E-4	<MDA
zinc-65	Ci	<MDA	<MDA	3.94E-4	<MDA
managanese-54	Ci	<MDA	<MDA	3.36E-4	6.49E-4
chromium-51	Ci	<MDA	<MDA	1.65E-3	5.14E-3
zirconium-niobium-95	Ci	<MDA	<MDA	1.43E-3	1.57E-3
molybdenum-99	Ci	<MDA	<MDA	8.56E-6	<MDA
technetium-99m	Ci	<MDA	<MDA	<MDA	<MDA
barium-lanthanum-140	Ci	<MDA	<MDA	4.23E-4	2.24E-2
cerium-141	Ci	<MDA	<MDA	<MDA	3.15E-5
Other (specify) ^{97}Zr	Ci	<MDA	<MDA	8.88E-5	<MDA
^{103}Ru	Ci	<MDA	<MDA	7.37E-5	<MDA
^{110}Ag	Ci	<MDA	<MDA	8.32E-4	8.99E-5
^{122}Sb	Ci	<MDA	<MDA	5.78E-5	<MDA
^{124}Sb	Ci	<MDA	<MDA	3.77E-5	<MDA
^{136}Cs	Ci	<MDA	<MDA	1.22E-5	1.57E-3
	Ci				
Unidentified	Ci				
Total for period	Ci	<MDA	<MDA	3.64E-2	3.14E-1
xenon-133	Ci	<MDA	<MDA	1.00E-2	1.21E-2
xenon-135	Ci	<MDA	<MDA	<MDA	<MDA

TABLE 3A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. Solid waste shipped off-site for burial or disposal (not irradiated fuel)

1. Type of waste	UNIT I & II	6 month period	EST. TOTAL ERROR %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m^3 Ci	6.80E+0 1.64E-2	2.5E+1
b. Dry compressible waste, contaminated equipment, etc.	m^3 Ci	1.28E+2 5.02E+0	2.5E+1
c. Irradiated components, control rods, etc.	m^3 Ci		
d. Other (describe)	m^3 Ci		

2. Estimate of major nuclide composition (by type of waste)		
a.&b. ^{137}Cs	%	19%
^{60}Co	%	19%
^{58}Co	%	19%
^{54}Mn	%	19%
^{134}Cs	%	18.3 %
^{131}I	%	3 %
^{89}Sr	%	0.53%
^{131m}Xe	%	0.32%
^{133}Xe	%	0.27%
^{140}Ba	%	0.25%
^{99}Mo	%	0.15%
^{136}Cs	%	0.126%
^{140}La	%	0.06%
^{90}Sr	%	0.02%
^{57}Co	%	0.019%
^{132}I	%	0.0061%
^{122}Sb	%	0.0037%
^{3}H	%	0.0005%

3. Solid Waste Disposition Number of Shipments	Mode of Transportation	Destination
12	Sole use Truck	Barnwell, S. C.
4	Sole use Truck	Lynchburg, VA.
3	Sole use Truck	Richland, WA.

B. Irradiated Fuel Shipments (Disposition)

Number of Shipments	Mode of Transportation	Destination
None	There were no Unit II solid	waste or irradiated fuel
	shipments from March 27,	1979 thru June 30, 1979

for burial or disposal.

TMI- UNIT I

Note (1)- As a result of the Unit II accident on March 28, 1979, noble gases and radioiodines were released from the Unit I station vent because of the commonality of the FHB. Since the radioiodines originated from Unit II, they are treated as Unit II releases.The activity of radioiodines were determined from Ge(Li) analysis of charcoals taken from RMA-8. The releases were considered to be continuous from March 28, 1979 thru April 30, 1979.

Note (2)- The single April reactor purge particulate and iodine samples were lost as a result of the Unit II accident. The calculated April purge releases are ^{60}Co (8.04E-6), ^{58}Co (5.87E-7), ^{131}I (9.33E-5) and ^{133}I (4.07E-6) Curies; assuming a 90% filter efficiency for particulates and radioiodines.

Note (3)- The liquid samples that had been collected for the March, 1979 composite analysis of ^{89}Sr and ^{90}Sr were in the Unit I and Unit II Health Physics Lab areas on March 28, 1979. As a result of the accident on March 28, 1979, both samples became highly contaminated and were discarded. The best estimate of the ^{89}Sr and ^{90}Sr released during March 1979 was to weight the concentrations in the preceeding two months with the actual volume discharged thru the liquid rad system for January and February, 1979, and multiplied the weighted average by the volume released in March, 1979.

TMI - Unit II

EFFLUENT AND WASTE DISPOSAL SEMI ANNUAL REPORT
Jan 1 - June 30, 1979
SUPPLEMENTAL INFORMATION

FACILITY Three Mile Island, Unit II LICENSEE DPR - 73 -320

1. Regulatory Limits

a. Fission and activation gases:
b. Iodines:
c. Particulates, half-lives > 8 days:
d. Liquid effluents:

} Environmental Tech Specs, Article 2.1

2. Maximum Permissible Concentrations

Provide the MPCs used in determining allowable release rates or concentrations.

a, Fission and activation gases:
b. Iodines:
c. Particulates, half-lives 8 days:
d. Liquid effluents:

} 10 CFR, Part 20, Appendix B

3. Average Energy

Provide the average energy ($\bar{E}$) of the radionuclide mixture in releases of fission and activation gases, if applicable. $\bar{E}_\gamma$ 0.1MeV and $\bar{E}_\beta$ 0.13 MeV

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: Ge(Li) Spectrometry, Liquid Scintillation
b. Iodines: Ge(Li) Spectrometry
c. Particulates: Ge(Li) Spectrometry, Gas Flow Proportional
d. Liquid effluents: Ge(Li) Spectrometry, Liquid Scintillation

5. Batch Releases

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

A. Liquid

	1979 1st Qtr.	1979 2nd Qtr. (Note 6)
1. Number of batch releases:	43	52
2. Total time period for batch release:	4.56E+4 min.	7.16E+4 min.
3. Maximum time period for a batch release:	1.875E+3 min.	6.31E+3 min.
4. Average time period for batch releases:	1.06E+3 min.	1.38E+3 min.
5. Minimum time period for a batch release:	1.5E+2 min.	115 min.
6. Average stream flow during periods of release of effluent into flowing stream:	4.87E+6 ft^3/min.	2.47E+6 ft^3/min.

7909050417

5. Batch Releases (cont.)

B. Gaseous

	1979 1st. Qtr.	1979 2nd Qtr.
1. Number of batch releases:	11	1
2. Total time period for batch releases:	1.4909E+4 min.	5 min.
3. Maximum time period for a batch release:	5.07E+3 min.	5 min.
4. Average time period for batch release:	1.36E+3 min.	5 min.
5. Minimum time period for a batch release:	15 min.	5 min.

6. Abnormal Releases

A. Liquid

	1st. Qtr.	2nd Qtr.
1. Number of releases: 2. Total activity released:	Note 6	Note 6

B. Gaseous

	1st. Qtr.	2nd Qtr.
1. Number of releases:	NA	NA
2. Total activity released:	a. 8.82E+6 Ci of fission gases b. 6.8 Ci of Iodines	1.11E+6 Ci of fission gases 9.76 Ci of Iodines

TABLE IA
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	UNIT II	First QUARTER	Second QUARTER	EST. TOTAL ERROR, %
A. Fission & activation gases				
1. Total release	Ci	8.89E+6	1.11E+6	2.5E+1
2. Average release rate for period	µCi/sec.	1.13E+6	1.41E+5	
3. Percent of Tech Spec limit (1)	%	N/A	N/A	
B. Iodines				
1. Total Iodine-131	Ci	4.57E+0	9.6E+0	2.5E+1
2. Average release rate for period	µCi/sec.	5.80E-1	1.22E+0	
3. Percent of Tech Spec limit (1)	%	N/A	N/A	
C. Particulates				
1. Particulates with half-lives ≥ 8 Days	Ci	4.36E-4	4.99E-4	2.5E+1
2. Average release rate for period	µCi/sec.	5.53E-5	6.33E-5	
3. Percent of Tech Spec limit	%	2.30E-1	2.64E-1	
4. Gross alpha radioactivity (2)	Ci	<MDA	8.31E-5	
D. Tritium				
1. Total release	Ci	6.26E+1	8.41E+1	2.5E+1
2. Average release rate for period	µCi/sec.	7.94E-1	1.07E+1	
3. Percent of Tech Spec limit	%	NA	NA	

TABLE 1B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
GASEOUS EFFLUENTS-GROUND LEVEL RELEASE

		Continuous Mode		Batch Mode	
Nuclides Released	UNIT II	First QUARTER	Second QUARTER	First QUARTER	Second QUARTER

1. Fission gases (3)

krypton-85	Ci	<MDA	<MDA	<MDA	<MDA
krypton-85m	Ci	<MDA	<MDA	6.01E-4	<MDA
krypton-87	Ci	<MDA	<MDA	<MDA	<MDA
krypton-88	Ci	6.1E+4	<MDA	7.50E+0	<MDA
xenon-133	Ci	7.11E+6	1.10E+6	4.37E+0	1.98E-1
xenon-135	Ci	1.58E+6	1.4E+3	4.71E-3	<MDA
xenon-135m	Ci	1.41E+5	<MDA	<MDA	<MDA
xenon-138	Ci	<MDA	<MDA	<MDA	<MDA
Others (specify) ^{41}Ar	Ci	<MDA	<MDA	2.97E-1	<MDA
^{133m}Xe	Ci	<MDA	1.19E+4	<MDA	<MDA
	Ci				
	Ci				
	Ci				
Unidentified	Ci				
Total for period	Ci	8.89E+6	1.11E+6	1.22E+1	1.98E-1

2. Iodines (4)

iodine-131	Ci	4.57E+0	9.6E+0	1.37E-6	<MDA
iodine-133	Ci	2.23E+0	1.6E-1	<MDA	<MDA
iodine-135	Ci	<MDA	<MDA	<MDA	<MDA
Total for period	Ci	6.8E+0	9.76E+0	1.37E-6	<MDA

TABLE 1B (cont.)
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
GASEOUS EFFLUENTS-GROUND LEVEL RELEASES

		Continuous Mode		Batch Mode	
Nuclides Released	UNIT II	First QUARTER	Second QUARTER	First QUARTER	Second QUARTER
3. Particulates (5)					
strontium-89	Ci	<MDA	6.07E-5	<MDA	<MDA
strontium-90	Ci	<MDA	3.11E-5	<MDA	<MDA
cesium-134	Ci	<MDA	9.96E-6	<MDA	<MDA
cesium-137	Ci	6.95E-6	2.79E-5	1.92E-6	<MDA
barium-lanthanum-140	Ci	<MDA	<MDA	<MDA	<MDA
Others (specify) ^{58}Co	Ci	3.09E-4	8.15E-5	3.44E-6	<MDA
^{106}Ru	Ci	4.67E-5	<MDA	5.18E-5	<MDA
^{138}Cs	Ci	1.66E-5	<MDA	<MDA	<MDA
^{60}Co	Ci	<MDA	8.71E-5	<MDA	<MDA
~~[illegible]~~ ^{140}Ba	Ci	<MDA	2.00E-4	<MDA	<MDA
^{136}Cs	Ci	<MDA	2.46E-7	<MDA	<MDA
^{89}Sr	Ci	<MDA	4.30E-7	<MDA	<MDA

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	UNIT II	First(6) QUARTER	Second(6) QUARTER	EST. TOTAL ERROR %
A. Fission and activation products				
1. Total releases (not including tritium, gases, alpha)	Ci	2.03E-1	1.28E-1	2.5E+1
2. Average diluted concentration during period	µCi/ml	9.46E-9	5.45E-9	
3. Percent of applicable limit	%	8.1E0	5.1E0	
B. Tritium				
1. Total release	Ci	7.81E+1	<MDA	2.5E+1
2. Average diluted concentration during period	µCi/ml	4.13E-6	NA	
3. Percent of applicable limit	%	1.38E-1	NA	
C. Dissolved and entrained gases				
1. Total release	Ci	3.17E-2	<MDA	2.5E+1
2. Average diluted concentration during period	uCi/ml	1.68E-9	NA	
3. Percent of applicable limit	%	2.8E-5	NA	
D. Gross alpha radioactivity				
1. Total release	Ci	<MDA	<MDA	2.5E+1
E. Volume of waste released (prior to dilution)	liters	9.02E+5	2.54E+7	1.0E+1
F. Volume of dilution water used during period	liters	2.15E+10	2.35E+10	1.0E+1

TABLE 2B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT - 1979
LIQUID EFFLUENTS

Nuclides Released	UNIT II	Continuous Mode First[7] QUARTER	Continuous Mode Second QUARTER	Batch Mode First QUARTER	Batch Mode Second QUARTER
strontium-89	Ci	< MDA	NA	9.53E-5	< MDA
strontium-90	Ci	≤ MDA	NA	2.29E-3	< MDA
cesium-134	Ci	< MDA	NA	1.94E-3	< MDA
cesium-137	Ci	< MDA	NA	2.18E-3	< MDA
iodine-131	Ci	1.06E-1	NA	8.82E-4	1.28E-1
cobalt-58	Ci	< MDA	NA	2.11E-2	< MDA
cobalt-60	Ci	< MDA	NA	3.88E-3	< MDA
iron-59	Ci	< MDA	NA	1.39E-3	< MDA
zinc-65	Ci	< MDA	NA	< MDA	< MDA
managanese-54	Ci	< MDA	NA	1.13E-2	< MDA
chromium-51	Ci	< MDA	NA	2.1E-3	< MDA
zirconium-niobium-95	Ci	< MDA	NA	5.79E-4	< MDA
molybdenum-99	Ci	< MDA	NA	3.85E-5	< MDA
technetium-99m	Ci	< MDA	NA	< MDA	< MDA
barium-lanthanum-140	Ci	< MDA	NA	6.98E-4	< MDA
cerium-141	Ci	< MDA	NA	< MDA	< MDA
Other (specify) ^{133}I	Ci	4.68E-2	NA	< MDA	1.61E-4
^{103}Ru	Ci	< MDA	NA	2.1E-4	< MDA
^{110}Ag	Ci	< MDA	NA	1.07E-3	< MDA
^{110m}Ag	Ci	< MDA	NA	1.98E-4	< MDA
^{122}Sb	Ci	< MDA	NA	1.01E-4	< MDA
^{124}Sb	Ci	< MDA	NA	9.26E-5	< MDA
^{187}W	Ci	< MDA	NA	3.43E-4	< MDA
Unidentified	Ci				
Total for period	Ci	1.53E-1	NA	5.05E-2	1.28E-1

xenon-133	Ci	< MDA	NA	3.13E-2	< MDA
xenon-135	Ci	< MDA	NA	3.98E-4	< MDA

Note (1)- Specific Tech Spec violations will be included i.: final report to the USNRC on the March 18, 1979 accident.

Note (2)- No monthly composite samples were made for Alpha. To be conservative, the highest Alpha concentration for a month was used for the complete air flow for the month.

Note (3)- The mixtures of noble gases were taken from the Interim Report on The TMI Nuclear Station Unit II Accident (May 15, June 18, and July 16, 1979) from J.G. Herbein to B.H. Grier, NRC The "mix" of noble gas fission products released, with one exception, was taken as that calculated to be appropriate for the nuclear fuel by the ORIGEN computer program. Comparison of the ORIGEN results with actual measurements of the isotopic "mix" in samples of gaseous effluents showed good agreement except that measured values of ^{133}mXe were about a factor of 6 lower than ORIGEN predictions.

Note (4)- The total Iodine released was determined by simultaneous Ge(Li) analysis of the charcoal and particulate filters. Subsequently, the particulate filters were analyzed for long lived Gamma and Beta emitters.

Note (5)- The analysis for Sr was performed by combining all availabe samples for the second quarter.

Note (6)- Liquid Effluent Tech Spec Limits were not exceeded. As a result of the Unit II accident on March 28, 1979, small quanti ies of ^{131}I and ^{133}I entered normally non-radioactive Unit II sumps a d were pumped to the IWTS and IWFS. During the period March 28, 1979 thru March 31, 1979, 1.06E-1 Ci of ^{131}I amd 4.7E-1 Ci of ^{133}I were released to t e Susquehanna River from all sources. Prior to April 1, 1979 releases thr IWTS and IWFS were considered to be continuous releases; however, a ter April 1, 1979, all releases are considered to be batch releases. Th method for estimating the ^{131}I releases thru the IWTS and IWFS are provided in the Interim Report on The TMI Nuclear Station Unit II Accident (May 15, June 18, and July 16, 1979 from J.G. Herbein to B.H. Grier, NRC.

These same methods were employed in estimating the releases of ^{133}I thru IWTS and IWFS. See Table 2B of Unit I, Effluent and Waste Disposal Semi-annual Report, 1979. There have been no liquid releases for Unit II since the accident on March 28, 1979, except the radioiodine contamination of IWTS and IWFS.

Note (7)- The liquid samples that had been collected for t e March, 1979 composite analysis of ^{89}Sr and ^{90}Sr were in the Unit I and Unit II Health Physics Lab area on March 28, 1979. As a result of the accident on March 28, 1979, both samples became contaminated and were discarded.
The best estimate of the ^{89}Sr and ^{90}Sr released during March, 1979 was to weight the concentrations in the preceedings two months with the actual volume discharged thru the liquid rad system for January and February, 1979. and multiplied the weighted average by the Volume released in March 1979.

Additional Note- the following sample data is missing. Conservative estimates have been used to cover these time frames.

Date- March, all

Data- ^{89}Sr, ^{90}Sr, and Gross Alpha for gas.

POOR ORIGINAL

Attachment 2

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0
SITE TMI
PERIOD OF RECORD FROM 79010201 TO 79033122
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

REQUEST NUMBER 908-3

TMI Unit 1 - First Quarter 1979 for Specific Periods

DIRECTIONS

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	6.7	3.45
3.6 - 7.5	4	0	0	0	0	0	0	0	1	0	0	1	1	1	2	0	10	33.3	4.87
7.6 - 12.5	0	0	0	0	0	0	0	0	0	5	1	0	4	0	0	1	11	36.7	9.55
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	2	6	20.0	16.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3.3	19.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	5	0	0	0	0	0	0	0	1	5	1	2	5	3	4	4	30	0.0	7.12
PERCENT	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	16.7	3.3	6.7	16.7	10.0	13.3	13.3	100.0		
AV SPD	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	9.2	10.5	9.7	9.3	13.0	12.3	10.8			

AVERAGE SPEED FOR THIS TABLE EQUALS 9.3
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -1.0 BUT LESS THAN OR EQUAL TO -.9
SITE TMI
PERIOD OF RECORD FROM 79010201 TO 79033122
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

REQUEST NUMBER 908-3

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	22.2	2.89
3.6 - 7.5	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	4	44.4	4.84
7.6 - 12.5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	11.1	9.20
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	11.1	16.10
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11.1	23.50
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	0	0	1	0	0	0	1	1	0	0	2	2	1	1	9	0.0	5.19
PERCENT	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	11.1	11.1	0.0	0.0	22.2	22.2	11.1	11.1	100.0		
AV SPD	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	5.5	9.2	0.0	0.0	11.1	4.0	23.5	3.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 8.3
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 908-3
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8
SITE TMI
PERIOD OF RECORD FROM 79010201 TO 79033122
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 1 - First Quarter 1979 for Specific Periods (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	5.9	2.90
3.6 - 7.5	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	5	29.4	6.33
7.6 - 12.5	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	4	23.5	9.11
12.6 - 18.5	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	2	5	29.4	14.15
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.9	22.10
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.9	24.70
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	1	0	0	0	0	0	4	0	0	1	2	2	0	7	17	9.0	8.45
PERCENT	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	23.5	0.0	0.0	5.9	11.8	11.8	0.0	41.2	100.0		
AV SPD	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0	8.8	14.9	7.5	0.0	13.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 11.2
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 908-3
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3
SITE TMI
PERIOD OF RECORD FROM 79010201 TO 79033122
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	2	2	0	2	1	2	1	1	0	0	1	0	0	3	4	3	22	10.4	2.49
3.6 - 7.5	2	1	1	7	1	0	2	1	0	1	1	0	1	1	3	2	24	11.4	5.88
7.6 - 12.5	1	0	0	6	0	3	3	5	3	3	2	2	8	2	14	7	59	28.0	9.73
12.6 - 18.5	2	0	0	0	0	0	2	2	0	0	1	1	17	23	12	9	69	32.7	14.84
18.6 - 24.5	2	0	0	0	0	0	0	0	0	0	0	0	3	11	14	0	30	14.2	20.79
24.6 - 32.5	0	1	0	0	0	0	0	0	0	0	0	0	0	1	5	0	7	3.3	26.05
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	9	4	1	15	2	5	8	9	3	4	5	3	29	41	52	21	211	0.0	8.33
PERCENT	4.3	1.9	.5	7.1	.9	2.4	3.8	4.3	1.4	1.9	2.4	1.4	13.7	19.4	24.6	10.0	100.0		
AV SPD	11.0	9.2	6.3	6.8	3.4	6.8	8.6	9.4	9.2	9.3	8.2	10.9	13.9	15.5	15.1	10.9			

AVERAGE SPEED FOR THIS TABLE EQUALS 12.5
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 13

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-3

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO .8

SITE TMI

PERIOD OF RECORD FROM 79010201 TO 79033122

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 1 - First Quarter 1979 for Specific Periods (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	11	11	6	5	8	5	6	3	8	1	1	1	11	5	5	8	65	10.9	2.09
3.6 - 7.5	28	20	21	14	16	19	10	11	13	8	13	20	20	19	17	15	264	30.2	5.52
7.6 - 12.5	7	3	6	8	8	21	29	16	7	7	7	12	35	51	39	18	274	31.3	9.60
12.6 - 18.5	5	0	3	4	1	9	7	1	4	4	4	1	23	62	17	9	154	17.6	14.93
18.6 - 24.5	0	3	3	1	1	5	4	0	0	0	0	0	8	31	14	4	74	8.5	20.95
24.6 - 32.5	1	0	1	0	0	0	0	0	0	0	0	0	0	3	4	1	10	1.1	26.30
32.6+	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	.5	41.70
TOTAL	52	39	42	32	34	59	56	31	32	20	25	34	97	171	96	55	875	100.0	6.43
PERCENT	5.9	4.5	4.8	3.7	3.9	6.7	6.4	3.5	3.7	2.3	2.9	3.9	11.1	19.5	11.0	6.3	100.0		
AV SPD	6.8	8.3	9.6	7.8	6.7	9.3	9.7	7.7	6.6	8.3	7.8	6.8	10.7	13.7	12.1	9.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 10.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 36

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-3

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2

SITE TMI

PERIOD OF RECORD FROM 79010201 TO 79033122

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	5	3	0	5	4	2	2	1	3	6	3	1	9	6	5	5	60	26.2	2.01
3.6 - 7.5	14	6	4	2	3	3	5	1	2	7	5	5	15	10	12	19	113	49.3	5.08
7.6 - 12.5	3	0	1	3	0	0	2	0	3	2	2	2	3	5	4	10	40	17.5	9.33
12.6 - 18.5	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	8	11	4.8	14.58
18.6 - 24.5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	.9	23.06
24.6 - 32.5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.3	26.10
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	24	10	7	11	7	5	9	2	8	15	10	8	27	22	21	43	229	0.0	3.99
PERCENT	10.5	4.4	3.1	4.8	3.1	2.2	3.9	.9	3.5	6.6	4.4	3.5	11.8	9.6	9.2	18.8	100.0		
AV SPD	6.8	6.3	11.2	5.9	3.6	4.5	5.3	3.7	6.1	4.4	5.3	6.3	4.4	5.5	5.9	8.0			

AVERAGE SPEED FOR THIS TABLE EQUALS 6.1

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 18

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2
SITE TMI
PERIOD OF RECORD FROM 79010201 TO 79033122
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

REQUEST NUMBER 908-3

TMI Unit 1 - First Quarter 1979 for Specific Periods

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	4	5	3	2	6	9	4	5	10	6	5	4	3	8	3	7	84	51.9	1.93
3.6 - 7.5	6	0	3	2	3	2	1	1	4	1	4	2	8	3	7	17	64	39.5	4.96
7.6 - 12.5	2	0	0	1	0	0	0	0	0	0	0	0	1	1	3	5	13	8.0	8.66
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	.6	24.70
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	12	5	6	5	9	11	5	6	14	7	9	6	12	12	14	29	162	0.0	2.79
PERCENT	7.4	3.1	3.7	3.1	5.6	6.8	3.1	3.7	8.6	4.3	5.6	3.7	7.4	7.4	8.6	17.9	100.0		
AV SPD	4.8	2.0	3.5	4.5	2.9	2.2	2.4	2.1	2.9	2.4	3.1	3.5	5.3	3.4	7.2	5.3			

AVERAGE SPEED FOR THIS TABLE EQUALS 4.0
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 20

SUMMARY TABLE

SPEED	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
CALM+ - 3.5	23	21	9	14	20	18	13	10	22	13	10	6	23	23	17	24	266	17.4
3.6 - 7.5	54	27	29	25	23	24	18	14	22	17	23	28	46	36	41	57	484	31.6
7.6 - 12.5	13	3	8	18	8	24	34	21	14	18	12	17	51	60	60	41	402	26.2
12.6 - 18.5	8	0	3	5	1	9	9	3	5	4	5	3	43	88	30	30	246	16.0
18.6 - 24.5	2	3	4	1	1	5	4	0	0	0	0	0	11	42	30	6	109	7.1
24.6 - 32.5	2	2	2	0	0	0	0	0	0	0	0	0	0	4	10	2	22	1.4
32.6+	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	.3
TOTAL	102	56	57	63	53	80	78	48	63	52	50	54	174	253	188	160	1533	100.0
PERCENT	6.7	3.8	3.7	4.1	3.5	5.2	5.1	3.1	4.1	3.4	3.3	3.5	11.4	16.5	12.3	10.4	100.0	

Attachment 1

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-6

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0

SITE TMI

PERIOD OF RECORD FROM 79010101 TO 79033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI First Quarter 1979 Totals

DIRECTIONS

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5.3	3.45
3.6 - 7.5	6	0	0	0	0	0	0	0	1	0	1	1	1	1	2	1	14	36.8	5.18
7.6 - 12.5	0	0	0	0	0	0	0	0	0	5	1	0	6	0	0	3	15	39.5	9.48
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	2	6	15.8	16.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.6	19.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	7	0	0	0	0	0	0	0	1	5	2	2	7	3	4	7	38	0.0	7.18
PERCENT	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	13.2	5.3	5.3	18.4	7.9	10.5	18.4	100.0		
AV SPD	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	9.2	8.0	9.7	9.0	13.0	12.3	10.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 9.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-6

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -1.0 BUT LESS THAN OR EQUAL TO -.9

SITE TMI

PERIOD OF RECORD FROM 79010101 TO 79033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	16.7	2.89
3.6 - 7.5	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	4	33.3	4.84
7.6 - 12.5	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	4	33.3	9.19
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	8.3	16.10
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8.3	23.50
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	0	0	1	0	0	0	1	1	0	0	2	3	2	2	12	0.0	5.83
PERCENT	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	8.3	8.3	0.0	0.0	16.7	25.0	16.7	16.7	100.0		
AV SPD	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	5.5	9.2	0.0	0.0	11.1	6.3	16.6	5.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 8.6

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-5

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8

SITE TMI

PERIOD OF RECORD FROM /9010101 TO /9033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI First Quarter 1979 Totals

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM. - 3.5	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	14.3	2.84
3.6 - 7.5	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	5	23.8	4.73
7.6 - 12.5	0	0	1	0	0	0	0	0	1	0	0	1	1	1	0	0	5	23.8	9.62
12.6 - 18.5	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	2	6	28.6	14.29
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4.8	22.10
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4.8	24.70
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	1	0	0	0	1	1	4	0	0	1	3	3	0	7	21	0.0	7.31
PERCENT	0.0	0.0	4.8	0.0	0.0	0.0	4.8	4.8	19.0	0.0	0.0	4.8	14.3	14.3	0.0	33.3	100.0		
AV SPD	0.0	0.0	10.4	0.0	0.0	0.0	2.5	3.2	8.6	0.0	0.0	8.8	14.0	10.0	0.0	13.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 10.6

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 2

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-6

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3

SITE TMI

PERIOD OF RECORD FROM /9010101 TO /9033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM. - 3.5	3	2	2	2	2	2	1	1	0	1	2	0	1	3	4	5	31	10.6	2.57
3.6 - 7.5	6	1	2	7	2	1	2	2	1	1	3	2	1	2	6	8	47	16.0	5.54
7.6 - 12.5	1	0	0	6	4	4	3	5	3	3	3	3	11	10	20	14	90	30.7	9.82
12.6 - 18.5	2	0	0	0	0	0	2	2	0	0	1	2	18	29	12	9	77	26.3	14.94
18.6 - 24.5	2	0	0	0	0	0	0	0	0	0	0	0	3	16	19	1	41	14.0	20.52
24.6 - 32.5	0	1	0	0	0	0	0	0	0	0	0	0	0	1	5	0	7	2.4	26.05
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	14	4	4	15	8	7	8	10	4	5	9	7	34	61	66	37	293	0.0	7.89
PERCENT	4.8	1.4	1.4	5.1	2.7	2.4	2.7	3.4	1.4	1.7	3.1	2.4	11.6	20.8	22.5	12.6	100.0		
AV SPD	8.9	9.2	4.0	6.8	7.0	6.9	8.6	9.0	7.9	8.0	7.0	10.1	13.3	15.2	14.6	9.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 11.8

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 15

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-6

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO .8

SITE TMI

PERIOD OF RECORD FROM 79010101 TO 79033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI First Quarter 1979 Totals

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	14	16	9	12	15	5	6	6	11	2	2	3	14	5	7	8	135	11.2	2.17
3.6 - 7.5	32	22	25	17	24	29	11	11	14	8	16	23	27	23	22	22	326	26.9	5.45
7.6 - 12.5	8	3	6	9	17	27	30	18	11	11	8	13	46	89	53	27	378	31.2	9.69
12.6 - 18.5	8	0	3	4	2	9	7	1	6	4	4	3	32	122	36	15	256	21.2	14.47
18.6 - 24.5	0	3	3	1	1	5	4	0	0	0	0	0	9	44	24	4	98	8.1	20.77
24.6 - 32.5	1	0	1	0	0	0	0	0	0	0	0	0	0	4	6	1	13	1.1	26.09
32.6+	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	.3	41.70
TOTAL	63	46	49	43	59	75	58	36	42	25	30	42	130	287	148	77	1210	100.0	6.59
PERCENT	5.2	3.8	4.0	3.6	4.9	6.2	4.8	3.0	3.5	2.1	2.5	3.5	10.7	23.7	12.2	6.4	100.0		
AV SPD	7.0	7.5	8.6	6.7	6.5	8.8	9.6	7.3	7.0	8.4	7.6	7.1	10.5	13.8	12.8	9.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 10.2

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 55

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-6

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2

SITE TMI

PERIOD OF RECORD FROM 79010101 TO 79033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	5	3	1	5	5	2	2	1	4	7	3	1	9	7	7	9	71	26.2	2.05
3.6 - 7.5	16	8	4	2	3	4	6	2	2	7	6	7	17	15	12	23	134	49.4	5.10
7.6 - 12.5	4	0	1	3	0	2	2	0	3	4	2	2	3	6	6	11	49	18.1	9.28
12.6 - 18.5	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	9	12	4.4	14.67
18.6 - 24.5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	.7	21.06
24.6 - 32.5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.1	26.10
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	27	12	8	11	8	8	10	3	9	18	11	10	29	29	25	53	271	0.0	4.03
PERCENT	10.0	4.4	3.0	4.1	3.0	3.0	3.7	1.1	3.3	6.5	4.1	3.7	10.7	10.7	9.2	19.6	100.0		
AV SPD	6.8	6.0	10.1	5.9	3.5	5.3	5.5	4.3	5.5	4.8	5.3	6.1	4.5	5.6	5.8	7.6			

AVERAGE SPEED FOR THIS TABLE EQUALS 6.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 20

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-6

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2

SITE TMI

PERIOD OF RECORD FROM 79010101 TO 79033124

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI First Quarter 1979 Totals

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	5	6	3	2	8	9	5	7	11	6	6	4	3	12	5	7	99	52.9	1.96
3.6 - 7.5	7	0	3	2	4	2	1	1	4	1	4	3	9	4	8	19	72	38.5	4.42
7.6 - 12.5	2	0	0	1	0	0	0	0	0	0	0	0	1	1	3	6	14	7.5	8.77
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	.5	13.40
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	.5	24.70
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	14	6	6	5	12	11	6	8	15	7	10	7	13	17	17	33	187	0.0	2.60
PERCENT	7.5	3.2	3.2	2.7	6.4	5.9	3.2	4.3	8.0	3.7	5.3	3.7	7.0	9.1	9.1	17.6	100.0		
AV SPD	4.6	2.2	3.5	4.5	2.9	2.2	2.2	2.1	2.9	2.4	3.0	3.8	5.3	3.1	6.6	5.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 4.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 22

S U M M A R Y T A B L E

SPEED	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
CALM+ - 3.5	28	27	15	21	31	18	15	16	27	16	13	8	27	28	23	30	343	16.9
3.6 - 7.5	67	31	34	28	33	36	20	16	24	17	30	36	56	47	50	77	602	29.6
7.6 - 12.5	15	3	8	19	21	33	35	23	18	24	14	19	70	108	83	62	555	27.3
12.6 - 18.5	11	0	3	5	2	9	9	3	7	4	5	6	53	155	49	38	359	17.7
18.6 - 24.5	2	3	4	1	1	5	4	6	0	0	0	0	12	60	45	7	144	7.1
24.6 - 32.5	2	2	2	0	0	0	0	0	0	0	0	0	0	5	12	2	25	1.2
32.6+	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	.2
TOTAL	125	68	68	74	88	101	83	56	76	61	62	69	218	403	262	216	2032	100.0
PERCENT	6.2	3.3	3.3	3.6	4.3	5.0	4.1	2.9	3.7	3.0	3.1	3.4	10.7	19.8	12.9	10.6	100.0	

Attachment 3

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

REQUEST NUMBER 908-4

TMI Unit 2 - First Quarter 1979 for Specific Periods

DIRECTIONS

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
3.6 - 7.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100.0	6.10
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	6.10
PERCENT	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0		
AV SPD	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	0.0			

AVERAGE SPEED FOR THIS TABLE EQUALS 6.1
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -1.0 BUT LESS THAN OR EQUAL TO -.9
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

REQUEST NUMBER 908-4

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
3.6 - 7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	50.0	4.80
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	50.0	10.90
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.5+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0.0	6.66
PERCENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0		
AV SPD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.9
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 908-4
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 2 - First Quarter 1979 for Specific Periods (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
3.6 - 7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	100.0	9.73
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0.0	9.73
PERCENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	100.0		
AV SPD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4	8.0	0.0	0.0			

AVERAGE SPEED FOR THIS TABLE EQUALS 10.2
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 908-4
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	8.0	2.33
3.6 - 7.5	1	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	4	16.0	5.42
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	1	3	5	0	9	36.0	9.69
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	8.0	17.44
18.6 - 24.5	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	8	32.0	20.25
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	2	0	0	0	1	0	0	0	0	0	2	1	2	5	10	2	25	0.0	8.24
PERCENT	8.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	8.0	4.0	8.0	20.0	40.0	8.0	100.0		
AV SPD	14.3	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	5.0	6.2	14.9	14.2	14.5	10.8			

AVERAGE SPEED FOR THIS TABLE EQUALS 12.6
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 2

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 908-4
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO .8
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 2 - First Quarter 1979 for Specific Periods

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	2	1	3	1	2	1	0	0	1	1	2	1	1	0	1	18	12.6	2.24
3.6 - 7.5	5	2	0	1	0	3	3	1	0	0	2	2	1	5	2	3	30	21.0	5.02
7.6 - 12.5	1	0	0	0	1	1	2	0	0	0	0	0	5	25	7	4	46	32.2	9.97
12.6 - 18.5	4	0	0	0	0	0	0	0	0	0	0	2	6	20	7	1	40	28.0	15.12
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	1	9	6.3	20.64
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	11	4	1	[illegible]	2	6	6	1	0	1	3	6	14	54	20	10	143	0.0	6.59
PERCENT	7.7	2.8	.7	2.8	1.4	4.2	4.2	.7	0.0	.7	2.1	4.2	9.8	37.8	14.0	7.0	100.0		
AV SPD	9.7	3.6	2.4	3.3	5.1	5.3	5.7	6.2	0.0	2.4	3.2	8.3	12.0	11.9	14.1	9.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 10.3
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 9

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 908-4
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	2	0	0	1	1	0	0	0	0	1	1	[illegible]	3	3	0	1	13	46.4	1.66
3.6 - 7.5	0	0	0	0	1	0	0	0	0	0	2	1	0	0	0	0	4	14.3	4.95
7.6 - 12.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	14.3	9.47
12.6 - 18.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	25.0	15.04
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	4	0	0	1	2	0	0	0	0	1	3	1	3	3	0	10	28	0.0	2.93
PERCENT	14.3	0.0	0.0	3.6	7.1	0.0	0.0	0.0	0.0	3.6	10.7	3.6	10.7	10.7	0.0	35.7	100.0		
AV SPD	7.5	0.0	0.0	2.1	4.1	0.0	0.0	0.0	0.0	1.3	4.4	5.1	1.2	1.7	0.0	12.2			

AVERAGE SPEED FOR THIS TABLE EQUALS 6.8
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 5

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2
SITE TMI
PERIOD OF RECORD FROM 79011620 TO 79031717
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

REQUEST NUMBER 908-4

TMI Unit 2 - First Quarter 1979 for Specific Periods

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	22.2	2.33
3.6 - 7.5	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	5	55.6	4.82
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	22.2	9.82
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	0	0	0	0	0	0	0	0	0	0	1	2	3	1	0	2	9	0.0	4.29
PERCENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	22.2	33.3	11.1	0.0	22.2	100.0		
AV SPD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	5.3	4.2	2.8	0.0	9.9			

AVERAGE SPEED FOR THIS TABLE EQUALS 5.6
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

SUMMARY TABLE

SPEED	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
CALM+ - 3.5	3	2	1	4	3	2	1	0	0	2	2	2	5	5	0	3	35	16.7
3.6 - 7.5	7	2	0	1	1	3	3	1	0	0	7	6	3	6	2	3	45	21.4
7.6 - 12.5	2	0	0	0	1	1	2	0	0	0	0	0	7	30	12	9	64	30.5
12.6 - 18.5	5	0	0	0	0	0	0	0	0	0	0	2	6	20	9	7	49	23.3
18.6 - 24.5	1	0	0	0	0	0	0	0	0	0	0	0	2	5	7	2	17	8.1
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	18	4	1	5	5	6	6	1	0	2	9	10	23	66	30	24	210	100.0
PERCENT	8.6	1.9	.5	2.4	2.4	2.9	2.9	.5	0.0	1.0	4.3	4.8	11.0	31.4	14.3	11.4	100.0	

Attachment 4

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-7
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0
SITE TMI
PERIOD OF RECORD FROM 79040101 TO 79063024
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Second Quarter 1979 Totals

DIRECTIONS

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	1	1	0	0	0	0	1	2	1	0	0	4	6	5	3	25	15.3	2.54
3.6 - 7.5	11	1	0	0	0	0	0	4	3	7	3	4	3	6	6	14	62	38.0	5.00
7.6 - 12.5	2	0	0	0	0	1	0	0	0	[illegible]	1	1	6	1	23	24	61	37.4	9.53
12.6 - 18.5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	7	14	8.6	13.82
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	.6	22.90
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	14	2	1	0	0	1	0	5	5	11	4	5	13	13	40	49	163	0.0	5.49
PERCENT	8.6	1.2	.6	0.0	0.0	.6	0.0	3.1	3.1	6.7	2.5	3.1	8.0	8.0	24.5	30.1	100.0		
AV SPD	5.2	3.8	3.1	0.0	0.0	11.8	0.0	4.8	4.4	6.9	6.9	5.0	6.3	4.7	9.1	8.9			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.4
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 14

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-7
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -1.0 BUT LESS THAN OR EQUAL TO -.9
SITE TMI
PERIOD OF RECORD FROM 79040101 TO 79063024
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	2	1	0	0	0	0	0	1	1	0	0	2	1	1	2	6	17	38.6	2.56
3.6 - 7.5	0	0	1	0	0	1	3	0	1	2	1	0	0	1	2	0	12	27.3	5.55
7.6 - 12.5	1	0	0	0	0	0	1	0	2	1	0	0	0	1	2	2	10	22.7	10.43
12.6 - 18.5	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	4	9.1	15.55
18.6 - 24.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2.3	20.10
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	4	1	1	0	0	1	4	2	4	4	1	2	1	3	7	9	44	0.0	4.37
PERCENT	9.1	2.3	2.3	0.0	0.0	2.3	9.1	4.5	9.1	9.1	2.3	4.5	2.3	6.8	15.9	20.5	100.0		
AV SPD	9.6	1.9	6.3	0.0	0.0	4.2	7.5	9.2	7.0	8.9	5.1	2.3	2.3	5.6	7.9	6.3			

AVERAGE SPEED FOR THIS TABLE EQUALS 6.9
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 14

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 906-7
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8
SITE TMI
PERIOD OF RECORD FROM 79040101 TO 79063024
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Second Quarter 1979 Totals (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	0	0	1	1	1	1	0	0	0	1	1	1	0	0	0	8	20.5	2.51
3.6 - 7.5	0	0	0	0	1	2	5	2	1	1	1	0	0	1	0	2	16	41.0	5.57
7.6 - 12.5	0	0	0	0	1	2	2	0	0	4	0	0	1	0	0	0	10	25.6	9.05
12.6 - 18.5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	3	7.7	14.16
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	5.1	22.76
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	1	0	0	1	3	5	8	2	2	6	2	1	4	1	0	3	39	0.0	5.22
PERCENT	2.6	0.0	0.0	2.6	7.7	12.8	20.5	5.1	5.1	15.4	5.1	2.6	10.3	2.6	0.0	7.7	100.0		
AV SPD	2.7	0.0	0.0	2.3	6.5	6.2	6.9	6.8	9.7	9.5	3.1	1.9	13.8	4.7	0.0	6.8			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.6
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 6

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION REQUEST NUMBER 906-7
FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3
SITE TMI
PERIOD OF RECORD FROM 79040101 TO 79063024
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	6	3	1	4	8	7	10	8	4	0	3	2	5	6	3	7	77	17.8	2.36
3.6 - 7.5	8	2	4	6	14	17	23	29	19	9	6	3	3	1	4	12	160	37.0	5.20
7.6 - 12.5	2	2	1	1	8	10	10	14	12	17	2	1	4	3	9	8	104	24.1	9.41
12.6 - 18.5	2	0	0	0	0	2	3	3	2	5	0	1	1	10	30	11	70	16.2	15.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	3	2	10	1	16	3.7	21.04
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	5	1.2	26.36
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	18	7	6	11	30	36	46	54	37	31	11	7	17	25	57	39	432	0.0	5.41
PERCENT	4.2	1.6	1.4	2.5	6.9	8.3	10.6	12.5	8.6	7.2	2.5	1.6	3.9	5.8	13.2	9.0	100.0		
AV SPD	5.7	5.1	6.1	4.6	5.5	6.6	6.3	6.8	7.0	9.6	5.7	6.5	10.4	13.6	14.2	8.9			

AVERAGE SPEED FOR THIS TABLE EQUALS 8.4
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 49

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-7

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO .8

SITE TMI

PERIOD OF RECORD FROM 79040101 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Second Quarter 1979 Totals (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	5	.5	.50
CALM+ - 3.5	16	11	11	16	25	17	20	12	13	9	19	19	22	8	9	12	239	22.6	2.20
3.6 - 7.5	34	13	14	33	41	51	37	41	29	52	19	10	15	21	28	27	470	44.5	5.25
7.6 - 12.5	7	6	2	1	8	19	7	17	18	32	7	3	2	33	54	29	245	23.2	9.45
12.6 - 18.5	4	0	0	0	3	9	5	1	3	4	2	0	1	13	23	14	82	7.8	14.80
18.6 - 24.5	0	0	0	0	0	0	0	0	0	1	0	0	0	3	8	2	14	1.3	20.52
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	.2	25.10
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	66	30	27	50	77	96	70	72	65	98	47	32	40	78	124	85	1057	0.0	4.40
PERCENT	6.2	2.8	2.6	4.7	7.3	9.1	6.6	6.8	6.1	9.3	4.4	3.0	3.8	7.4	11.7	8.0	100.0		
AV SPD	6.0	5.1	4.7	4.4	5.3	6.5	5.5	5.8	6.2	7.3	5.1	3.7	4.2	9.2	10.6	8.2			

AVERAGE SPEED FOR THIS TABLE EQUALS 5.7

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 121

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-7

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2

SITE TMI

PERIOD OF RECORD FROM 79040101 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	2	2	0	0	1	1	1	0	1	1	0	0	1	0	10	3.7	.50
CALM+ - 3.5	6	8	8	9	9	14	14	19	5	11	9	9	9	9	7	3	149	54.8	2.05
3.6 - 7.5	8	7	5	3	7	11	13	9	4	5	2	3	4	4	6	13	104	38.2	4.72
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2	8	2.9	9.16
12.6 - 18.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	.4	15.90
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.60
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	15	15	15	14	16	25	28	29	10	16	12	13	13	16	17	18	272	0.0	2.36
PERCENT	5.5	5.5	5.5	5.1	5.9	9.2	10.3	10.7	3.7	5.9	4.4	4.8	4.8	5.9	6.3	6.6	100.0		
AV SPD	4.7	3.5	2.8	2.8	3.2	3.4	3.2	3.1	3.4	3.4	2.8	2.7	2.8	4.4	4.9	5.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 3.5

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 71

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2

SITE TMI

PERIOD OF RECORD FROM 79040101 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

THI Second Quarter 1979 Totals (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	3	3.0	.50
CALM- - 3.5	2	1	4	2	2	10	5	3	7	6	2	5	5	5	4	3	66	66.0	1.79
3.6 - 7.5	1	0	1	1	2	3	8	2	0	1	1	0	0	1	4	4	29	29.0	4.52
7.6 - 12.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.0	10.30
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1.0	15.30
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	4	1	6	3	5	13	13	6	7	7	3	5	5	6	9	7	100	0.0	2.02
PERCENT	4.0	1.0	6.0	3.0	5.0	13.0	13.0	6.0	7.0	7.0	3.0	5.0	5.0	6.0	9.0	7.0	100.0		
AV SPD	4.9	2.3	2.2	2.5	3.2	2.6	4.0	2.8	2.1	2.4	2.6	1.4	1.5	2.3	4.8	3.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 3.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 23

SUMMARY TABLE

SPEED	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT
CALM	0	0	3	2	1	0	2	3	3	0	1	1	0	0	1	1	18	.9
CALM- - 3.5	34	25	25	32	45	49	50	44	32	27	34	38	47	35	30	34	581	27.6
3.6 - 7.5	67	23	25	43	65	85	89	87	57	77	33	20	25	35	50	72	853	40.5
7.6 - 12.5	13	8	3	2	17	32	20	31	32	56	10	5	13	41	91	65	439	20.8
12.6 - 18.5	7	0	0	0	3	11	8	5	6	12	2	1	2	23	61	34	175	8.3
18.6 - 24.5	1	0	0	0	0	0	0	0	0	1	0	0	5	5	18	4	34	1.6
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	0	7	.3
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	172	56	56	79	131	177	169	170	130	173	80	65	93	142	254	210	2107	100.0
PERCENT	5.8	2.7	2.7	3.7	6.2	8.4	8.0	8.1	6.2	8.2	3.8	3.1	4.4	6.7	12.1	10.0	100.0	

Attachment 5

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 906-5

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0

SITE TMI

PERIOD OF RECORD FROM 79040220 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 1 - Second Quarter 1979 for Specific Periods

DIRECTIONS

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	0	1	1	0	0	0	0	0	1	1	0	0	3	6	5	2	20	13.5	2.44
3.6 - 7.5	8	1	0	0	0	0	0	4	3	7	3	2	3	6	4	12	53	35.8	5.11
7.6 - 12.5	2	0	0	0	0	1	0	0	0	2	1	1	6	1	23	23	60	40.5	4.56
12.6 - 18.5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	7	14	9.5	13.42
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	.7	22.40
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.5+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	10	2	1	0	0	1	0	4	4	11	4	3	12	13	38	45	148	0.0	5.71
PERCENT	6.8	1.4	.7	0.0	0.0	.7	0.0	2.7	2.7	7.4	2.7	2.0	8.1	8.8	25.7	30.4	100.0		
AV SPD	5.5	3.8	3.1	0.0	0.0	11.8	0.0	5.2	4.0	6.9	4.9	5.7	5.6	4.7	9.2	9.2			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.7

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 12

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 906-5

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -1.0 BUT LESS THAN OR EQUAL TO -.9

SITE TMI

PERIOD OF RECORD FROM 79040220 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	1	0	0	0	0	0	1	1	0	0	2	1	1	2	6	16	37.2	2.53
3.6 - 7.5	0	0	1	0	0	1	3	0	1	2	1	0	0	1	2	0	12	27.9	5.55
7.6 - 12.5	1	0	0	0	0	0	1	0	2	1	0	0	0	1	2	2	10	23.3	10.43
12.6 - 18.5	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	4	9.3	15.55
18.6 - 24.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2.3	20.10
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.5+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	3	1	1	0	0	1	4	2	4	4	1	2	1	3	7	9	43	0.0	4.41
PERCENT	7.0	2.3	2.3	0.0	0.0	2.3	9.3	4.7	9.3	9.3	2.3	4.7	2.3	7.0	16.3	20.9	100.0		
AV SPD	11.7	1.9	6.3	0.0	0.0	4.2	7.5	9.2	7.0	8.9	5.1	2.3	2.3	5.6	7.9	6.3			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 14

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-5

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8

SITE TMI

PERIOD OF RECORD FROM 79040220 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 1 - Second Quarter 1979 for Specific Periods (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	1	0	0	1	1	1	1	0	0	0	1	1	1	0	0	0	8	23.5	2.51
3.6 - 7.5	0	0	0	0	1	2	5	2	1	1	1	0	0	0	0	1	14	41.2	5.74
7.6 - 12.5	0	0	0	0	1	2	2	0	0	4	0	0	1	0	0	0	10	29.4	9.05
12.6 - 18.5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	5.9	13.54
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	1	0	0	1	3	5	8	2	2	6	2	1	2	0	0	1	34	0.0	4.94
PERCENT	2.9	0.0	0.0	2.9	8.8	14.7	23.5	5.9	5.9	17.6	5.9	2.9	5.9	0.0	0.0	2.9	100.0		
AV SPD	2.7	0.0	0.0	2.3	6.5	6.2	6.9	6.8	9.7	9.5	3.1	1.9	4.6	0.0	0.0	6.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 4.6

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 6

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-5

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3

SITE TMI

PERIOD OF RECORD FROM 79040220 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
CALM+ - 3.5	4	3	1	4	8	6	9	5	3	0	3	2	5	5	2	6	66	19.3	2.40
3.6 - 7.5	7	2	2	5	12	17	23	29	16	4	5	2	3	1	3	5	141	41.2	5.20
7.6 - 12.5	2	2	1	1	6	7	10	14	11	17	2	1	1	3	8	4	90	26.3	9.56
12.6 - 18.5	2	0	0	0	0	0	2	3	2	5	0	1	0	0	18	11	44	12.9	14.59
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	.3	19.40
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	15	7	4	10	26	30	44	51	32	31	10	6	9	9	31	27	342	0.0	5.10
PERCENT	4.4	2.0	1.2	2.9	7.6	8.8	12.9	14.9	9.4	9.1	2.9	1.8	2.6	2.6	9.1	7.9	100.0		
AV SPD	6.2	5.1	7.0	4.6	5.2	5.7	6.1	7.0	7.1	9.6	5.7	6.4	4.2	5.4	11.8	10.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.3

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 42

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-5

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO .8

SITE TMI

PERIOD OF RECORD FROM 79040220 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 1 - Second Quarter 1979 for Specific Periods (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	4	.5	.50
CALM+ - 3.5	11	9	9	10	20	13	18	10	10	7	17	14	18	7	7	11	191	24.8	2.27
3.6 - 7.5	31	8	8	24	22	45	35	41	27	45	16	7	11	16	23	20	381	49.5	5.20
7.6 - 12.5	5	6	2	1	3	4	5	17	17	31	7	3	0	5	31	21	158	20.5	9.21
12.6 - 18.5	4	0	0	0	1	1	2	1	3	2	1	0	0	2	6	9	32	4.2	14.83
18.6 - 24.5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	4	.5	19.93
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	51	23	19	35	46	63	60	70	59	86	43	24	29	30	68	64	770	0.0	4.17
PERCENT	6.6	3.0	2.5	4.5	6.0	8.2	7.8	9.1	7.7	11.2	5.6	3.1	3.8	3.9	8.8	8.3	100.0		
AV SPD	6.2	5.4	4.7	4.4	4.4	4.9	5.1	5.9	6.4	7.3	5.0	3.9	3.3	5.9	8.5	7.9			

AVERAGE SPEED FOR THIS TABLE EQUALS 6.0

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 99

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-5

FOR TEMPERATURE DIFFERENCE(DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2

SITE TMI

PERIOD OF RECORD FROM 79040220 TO 79063024

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	2	1	0	0	0	1	1	0	0	0	0	0	1	0	6	2.6	.50
CALM+ - 3.5	5	6	6	8	9	14	11	18	5	9	7	7	8	9	6	3	131	57.2	2.06
3.6 - 7.5	7	6	2	3	6	9	9	9	3	3	2	3	4	4	4	10	84	36.7	4.77
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	7	3.1	9.35
12.6 - 18.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	.4	14.90
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	13	12	10	12	15	23	20	28	9	12	9	10	12	15	14	15	229	0.0	2.44
PERCENT	5.7	5.2	4.4	5.2	6.6	10.0	8.7	12.2	3.9	5.2	3.9	4.4	5.2	6.6	6.1	6.6	100.0		
AV SPD	5.0	3.6	2.6	2.9	3.2	3.3	3.1	3.2	3.4	3.4	3.3	2.9	3.0	4.2	4.9	5.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 3.6

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 63

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION — REQUEST NUMBER 908-5
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2
SITE TMI
PERIOD OF RECORD FROM 79040220 TO 79063024
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 33FT

TMI Unit 1 - Second Quarter 1979 for Specific Periods (cont'd)

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPD(MPH)
CALM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	2.5	.50
CALM+ - 3.5	1	0	3	1	2	8	4	3	6	5	1	4	3	4	3	2	50	62.5	1.79
3.6 - 7.5	1	0	1	0	2	2	8	2	0	1	1	0	0	1	3	4	26	32.5	4.54
7.6 - 12.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.3	10.30
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1.3	15.30
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00
TOTAL	3	0	4	1	5	10	12	6	6	6	2	4	3	5	7	6	80	0.0	2.12
PERCENT	3.8	0.0	5.0	1.3	6.3	12.5	15.0	7.5	7.5	7.5	2.5	5.0	3.8	6.3	8.8	7.5	100.0		
AV SPD	5.4	0.0	2.7	1.2	3.2	2.7	4.1	2.8	2.1	2.4	1.6	1.5	1.4	2.5	5.2	3.8			

AVERAGE SPEED FOR THIS TABLE EQUALS 3.2
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 17

SUMMARY TABLE

SPEED	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT
CALM	0	0	2	1	1	0	0	3	3	0	0	0	0	0	1	1	12	.7
CALM+ - 3.5	23	20	20	24	40	42	43	37	26	22	24	30	34	32	25	30	482	29.3
3.6 - 7.5	54	17	14	32	43	76	83	87	51	68	31	14	21	24	34	52	711	43.2
7.6 - 12.5	11	8	3	2	10	14	18	31	30	55	10	5	8	12	67	52	336	20.4
12.6 - 18.5	7	0	0	0	1	1	4	5	6	10	1	1	0	2	32	28	98	6.0
18.6 - 24.5	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4	7	.4
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	96	45	39	59	95	133	148	163	116	156	71	50	68	75	165	167	1646	100.0
PERCENT	5.8	2.7	2.4	3.6	5.8	8.1	9.0	9.9	7.0	9.5	4.3	3.0	4.1	4.6	10.0	10.1	100.0	