

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

Supplemental Information

Facility TMI Unit 1 Licensee DPR-50-289

1. Regulatory Limits Environmental Technical Specifications, Appendix B to Operating License DPR-50-289

- a. Fission and activation gases: -Article 2.3.2
- b. Iodines: -Article 2.3.2
- c. Particulates, half-lives > 8 days: Article 2.3.2
- d. Liquid effluents: Article 2.3.1

2. Maximum Permissible Concentrations

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

- a. Fission and activation gases: 10 CFR Part 20, Appendix B
- b. Iodines: "
- c. Particulates, half-lives > 8 days: "
- d. Liquid effluents: "

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3. Average Energy

Provide the average energy (\bar{E}) of the radionuclide mixture in releases of fission and activation gases, if applicable.
0.794 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: Gamma spectrometry, Geli Detector
- b. Iodines: Gamma Spectrometry, Geli Detector
- c. Particulates: Gamma Spectrometry, Geli Detector, low background beta counter
- d. Liquid effluents: Gamma spectrometry, Geli Detector, liquid scintillation counter.

5. Batch Releases

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

	3rd qtr.	4th qtr.
a. Liquid		
1. Number of batch releases:	22	39
2. Total time period for batch releases:	9157 min.	21463 min.
3. Maximum time period for a batch release:	823 min.	1294 min.
4. Average time period for batch releases:	416 min.	550 min.
5. Minimum time period for a batch release:	240 min.	235 min.
6. Average stream flow during periods of release of effluent into a flowing stream:	16,670 cfs	43,933 cfs.
b. Gaseous		
1. Number of batch releases:	11	17
2. Total time period for batch releases:	9782 min.	56,338 min.
3. Maximum time period for a batch release:	1440 min.	38,880 min.
4. Average time period for batch releases:	890 min.	3,314 min.
5. Minimum time period for a batch release:	432 min.	360 min.

6. Abnormal Releases

a. Liquid

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

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b. Gaseous

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

TABLE 1A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

GASEOUS EFFLUENTS—SUMMATION OF ALL RELEASES

	Unit	Quarter 3rd	Quarter 4th	Est. Total Error, %
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A. Fission & activation gases

1. Total release	Ci	2.43E 2	8.44E 2	3.0 E 1
2. Average release rate for period	$\mu\text{Ci/sec}$	3.08E 1	1.07E 2	
3. Percent of Technical specification limit	%	1.13E 2	3.92E 2	

B. Iodines

1. Total iodine-131	Ci	1.82E-3	2.37E 3	3.0 E 1
2. Average release rate for period	$\mu\text{Ci/sec}$	2.31E-4	3.01E-4	
3. Percent of technical specification limit	%	4.61E-1	6.02E-1	

C. Particulates

1. Particulates with half-lives >8 days	Ci	<1.65E-3	<1.77E 3	3.0 E 1
2. Average release rate for period	$\mu\text{Ci/sec}$	<2.88E-4	<2.25E-4	
3. Percent of technical specification limit	%	<4.15E-1	<4.48E-1	
4. Gross alpha radioactivity	Ci	<6.55E-9	<1.16E-8	

D. Tritium

1. Total release	Ci	6.08E 2	1.04E 2	3.0 E 1
2. Average release rate for period	$\mu\text{Ci/sec}$	7.71E 1	1.31E 1	
3. Percent of technical specification limit	%	N/A E	N/A E	

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TABLE 1C
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (YEAR)
GASEOUS EFFLUENTS-GROUND-LEVEL RELEASES

CONTINUOUS MODE						BATCH MODE	
Nuclides Released	Unit	Quarter		Quarter		Quarter	
		3rd		4th		3rd	
		4th		4th		4th	
1. Fission gases							
krypton-85	Ci	<MDA	E	<MDA	E	1.22 E 1	1.02 E 0
krypton-85m	Ci	"	E	"	E	7.13 E-2	9.38 E-1
krypton-87	Ci	"	E	"	E	7.02 E-4	8.83 E-2
krypton-88	Ci	"	E	"	E	4.94 E-2	5.44 E-1
xenon-133	Ci	"	E	"	E	2.25 E 2	8.17 E 2
xenon-135	Ci	"	E	"	E	2.50 E 0	1.36 E 1
xenon-135m	Ci	"	E	"	E	2.59 E-1	3.38 E-4
xenon-138	Ci	"	E	"	E	1.80 E-3	3.15 E-3
Others (specify) Argon-41	Ci	"	E	"	E	1.92 E-1	2.66 E 0
xenon-131m	Ci	"	E	"	E	1.46 E 0	1.15 E 0
xenon-133m	Ci	"	E	"	E	1.31 E 0	6.68 E 0
unidentified	Ci	"	E	"	E	- - E	- - E
Total for period	Ci	"	E	"	E	2.43 E 2	8.44 E 2

2. Iodines					
iodine-131	Ci	8.20E-5	9.79E-5	1.74E-3	2.27E-3
iodine-133	Ci	<1.93E-4	<1.93E-4	<4.72E-6	<3.12E-5
iodine-135	Ci	<8.73E-4	<8.73E-4	<2.14E-5	<1.45E-4
Total for period	Ci	8.20E-5	9.79E-5	1.74E-3	2.27E-3

3. Particulates					
strontium-89	Ci	<1.61E-5	<2.22E-5	<1.61E-8	<3.88E-8
strontium-90	Ci	<1.22E-5	<1.09E-5	<1.22E-8	<1.90E-8
cesium-134	Ci	<8.91E-5	<8.91E-5	<3.82E-5	<6.67E-5
cesium-137	Ci	<5.86E-6	<9.20E-6	<3.82E-5	<6.67E-5
barium-lanthanum-140	Ci	<2.95E-4	<2.95E-4	<3.32E-4	<5.80E-4
Others (specify) cobalt-58	Ci	3.05E-4	<2.22E-5	1.81E-5	6.71E-5
cobalt-60	Ci	<1.27E-5	1.52E-5	1.97E-6	4.22E-6
chrome-51	Ci	<4.82E-4	<4.82E-4	1.87E-5	2.3E-5
unidentified	Ci	-	-	-	-

Gas	MDA's (μ ci/ml)		Particulates
	Charcoal		
Kr-85 1.03E-5	I-131	4.752E-13	Cs-134 1.85 E-13
Xe-133 1.50E-7	I-133	4.006E-13	Cs-137 1.58 E-13
others <1.00E-5	I-135	1.825E-12	Ba-140 3.32 E-13
			La-140 2.80 E-13
			Sr-89 3.98E-14
			Sr-90 2.40 E-14

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TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

LIQUID EFFLUENTS—SUMMATION OF ALL RELEASES

Unit	Quarter 1	Quarter 3rd	Quarter 4th	Est. Total Error, %
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A. Fission and activation products

1. Total release (not including tritium, gases, alpha)	Ci	1.03 E-2	4.51 E-2	3.0 E 1
2. Average diluted concentration during period	μCi/ml	1.05 E-9	3.41 E-9	
3. Percent of applicable limit	%	1.03 E-1	4.51 E-1	

B. Tritium

1. Total release	Ci	5.56 E 1	9.0 E 1	3.0 E 1
2. Average diluted concentration during period	μCi/ml	5.69 E-6	6.83 E-6	
3. Percent of applicable limit	%	N/A E	N/A E	

C. Dissolved and entrained gases

1. Total release	Ci	3.00 E-3	1.90 E-2	3.0 E 1
2. Average diluted concentration during period	μCi/ml	3.07 E-10	1.44 E-9	
3. Percent of applicable limit	%	N/A E	N/A E	

D. Gross alpha radioactivity

1. Total release	Ci	< 5.44 E-7	1.6 E-6	8.7 E 1
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E. Volume of waste released (prior to dilution)	liters	5.04 E 5	9.49 E 5	2.2 E 1
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F. Volume of dilution water used during period	liters	9.78 E 9	1.32 E 10	8.5 E 0
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TABLE 2B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

LIQUID EFFLUENTS

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter 1 st	Quarter 2 nd	Quarter 3 rd	Quarter 4 th
strontium-89	Ci	<MDA	<MDA	5.44E-6	1.96E-5
strontium-90	Ci	E	E	6.05E-6	7.80E-6
cesium-134	Ci	E	E	4.51E-4	4.51E-3
cesium-137	Ci	E	E	8.36E-4	7.52E-3
iodine-131	Ci	E	E	2.15E-4	4.26E-4
cobalt-58	Ci	E	E	7.04E-3	2.53E-2
cobalt-60	Ci	E	E	9.47E-4	2.62E-3
iron-59	Ci	E	E	1.79E-5	1.02E-4
zinc-65	Ci	E	E	2.01E-4	2.02E-4
manganese-54	Ci	E	E	5.33E-4	1.04E-3
chromium-51	Ci	E	E	4.15E-4	2.76E-3
zirconium-niobium-95	Ci	E	E	8.21E-5	9.49E-5
molybdenum-99	Ci	E	E	3.94E-5	7.42E-5
technetium-99m	Ci	E	E	3.53E-5	6.61E-5
barium-lanthanum-140	Ci	E	E	1.26E-4	2.37E-4
cerium-141	Ci	E	E	5.64E-5	9.49E-5
Other (specify)	Ci	E	E	- - E	- - E
	Ci	E	E	2.23E-9	5.54E-5
	Ci	E	E	1.17E-4	5.35E-4
	Ci	E	E	1.16E-4	1.16E-4
	Ci	E	E	5.04E-5	3.80E-5
unidentified	Ci	E	E	- - E	- - E
Total for period (above)	Ci	E	E	1.03E-2	4.51E-2
xenon-133	Ci	E	E	3.00E-3	1.87E-2
xenon-135	Ci	E	E	3.22E-6	2.86E-4
xenon-133m	Ci	E	E	3.41E-5	3.41E-5

MDA's $\mu\text{Ci/ml}$

Cr-51 3E-9
 I-131 4E-10
 I-133 4E-10
 Cs-137 5E-10
 As-110m 4E-10
 Mo-99 4E-9
 ZrNb-95 4E-10
 Cs-134 5E-10
 Co-58 5E-10
 Mn-54 5E-10
 Fe-54 1E-9
 Cs-136 6E-10
 Zn-65 1E-9
 Co-60 6E-10
 BaLa-140 6E-10

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TABLE 3

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

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

1. Type of waste	Unit	6-month Period	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	1 .04E2 4 .11E0	2.5 E 1
b. Dry compressible waste, contaminated equip, etc.	m ³ Ci	5 .07E1 1 .82E0	2.5 E 1
c. Irradiated components, control rods, etc.	m ³ Ci	. E . E	. E
d. Other (describe)	m ³ Ci	. E . E	. E

2. Estimate of major nuclide composition (by type of waste)

a.	Mn-54	%	5.00 E 0
	Co-58	%	4.90 E 1
	Co-60	%	4.50 E 0
b.	T-131	%	3.0 E 0
	Cs-134	%	1.05 E 1
	Cs-137	%	2.2 E 1
c.	All others	%	<1.00 E 0
		%	. E
		%	. E
d.		%	. E
		%	. E
		%	. E

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
9	Motor Truck	Barnwell, S.C.

B. IRRADIATED FUEL SHIPMENTS (Disposition)

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

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TABLE 4A

HOURS AT EACH WIND SPEED AND DIRECTION ^a (See attached tables)

PERIOD OF RECORD:

STABILITY CLASS:

ELEVATION:

Wind Direction	Wind Speed (mph) at 10m Level						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N							
NNE							
NE							
ENE							
E							
ESE							
SE							
SSE							
S							
SSW							
SW							
WSW							
W							
WNW							
NW							
NNW							

VARIABLE

Total

Periods of calm (hours):

Hours of missing data:

^a In the table, record the total number of hours of each category of wind direction for each calendar quarter. Provide similar tables separately for each atmospheric stability class and elevation.

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*JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0
SITE TMT

REQUEST NUMBER 702-11

PERIOD OF RECORD FROM 76070101 TO 76100408
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

Attachment 1

SPEED (MPH)	WIND DIRECTION																TOTAL	PERCENT	GEO MEAN SPD (MPH)
	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	.0	.00
CALM+ - 3.5	7	3	1	0	0	1	1	1	1	4	3	5	2	6	3	16	54	19.3	2.05
3.6 - 7.5	10	2	1	0	1	5	3	0	0	6	13	12	5	4	21	26	109	36.9	5.25
7.6 - 12.5	6	0	0	0	0	1	0	2	0	4	6	3	7	9	35	13	86	30.7	9.57
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	1	1	0	0	20	9	31	11.1	14.14
18.6 - 24.5	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	.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	23	5	2	0	1	7	4	3	1	14	23	21	14	19	79	64	260	.0	4.21
PERCENT	4.2	1.9	.7	.0	.4	2.5	1.4	1.1	.4	5.0	4.2	7.5	5.0	6.8	28.2	22.9	100.0		
AV SPD	5.3	3.8	2.7	.0	4.3	4.7	5.9	6.0	2.5	5.9	6.2	5.7	7.3	6.3	9.8	6.8			
AVERAGE SPEED FOR THIS TABLE EQUALS 7.2																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 4																			

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 TMT

REQUEST NUMBER 702-11

PERIOD OF RECORD FROM 76070101 TO 76100408
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

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SPEED (MPH)	WIND DIRECTION																TOTAL	PERCENT	GEO MEAN SPD (MPH)
	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	.0	.00
CALM+ - 3.5	0	0	1	1	0	2	0	0	0	0	1	0	0	0	2	1	8	20.5	2.15
3.6 - 7.5	0	0	0	0	0	0	0	0	0	0	0	4	4	1	3	4	16	41.0	4.97
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	1	0	0	2	4	3	10	25.6	10.22
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	12.8	13.15
18.6 - 24.5	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	.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	0	0	1	1	0	2	0	0	0	0	2	4	4	3	13	9	39	.0	4.70
PERCENT	.0	.0	2.6	2.6	.0	5.1	.0	.0	.0	.0	5.1	10.3	10.3	7.7	33.3	23.1	100.0		
AV SPD	.0	.0	1.3	3.3	.0	3.0	.0	.0	.0	.0	5.1	5.1	5.2	8.5	8.8	7.7			
AVERAGE SPEED FOR THIS TABLE EQUALS 6.9																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0																			

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JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.4
SITE TMI

REQUEST NUMBER 702-11

PERIOD OF RECORD FROM 76070101 TO 76100408
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

WIND DIRECTION

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEOM. MEAN
CALM	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	1	0	0	0	0	1	2	2	0	1	0	9	17.0	1.53
3.6 - 7.5	1	0	0	0	1	1	2	2	0	4	1	1	0	2	2	2	19	37.3	5.41
7.6 - 12.5	0	0	0	0	0	0	0	0	0	2	3	1	2	0	6	3	17	33.3	9.55
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	9.8	13.59
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2.0	20.70
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	1	1	1	0	1	2	2	2	0	6	5	4	4	2	13	7	51	.0	.00
PERCENT	2.0	2.0	2.0	.0	2.0	3.9	3.9	3.9	.0	11.8	9.8	7.8	7.8	3.9	25.5	13.7	100.0		
AV SPD	6.7	1.1	1.0	.0	5.0	3.9	7.0	5.5	.0	6.2	7.3	5.2	6.2	5.5	9.8	11.1			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.5
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3
SITE TMI

REQUEST NUMBER 702-11

PERIOD OF RECORD FROM 76070101 TO 76100408
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

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WIND DIRECTION

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEOM. MEAN
CALM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	.2	.50
CALM+ - 3.5	11	12	7	4	4	5	0	5	9	3	15	15	19	12	13	15	149	27.5	5.11
3.6 - 7.5	17	6	10	10	16	14	4	2	17	20	23	27	11	21	24	20	242	44.7	5.16
7.6 - 12.5	4	2	7	2	1	6	3	1	0	16	10	2	7	15	37	10	123	22.7	9.28
12.6 - 18.5	1	0	0	0	0	0	0	0	1	6	1	1	0	1	12	2	25	4.6	13.53
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	.2	14.70
24.6 - 32.5	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	.00
TOTAL	33	20	25	16	21	25	7	8	27	45	49	45	37	49	87	47	541	.0	4.02
PERCENT	6.1	3.7	4.6	3.0	3.9	4.6	1.3	1.5	5.0	8.3	9.1	8.3	6.8	9.1	16.1	8.7	100.0		
AV SPD	5.2	3.7	5.5	5.3	5.0	5.9	7.2	4.1	4.6	7.6	5.4	4.6	4.6	6.0	8.2	5.6			

AVERAGE SPEED FOR THIS TABLE EQUALS 5.9
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 14

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JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
 FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO .8
 SITE TMI
 PERIOD OF RECORD FROM 76070101 TO 76100408
 SPEED AND DIRECTION FROM 100FT LEVEL
 TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

REQUEST NUMBER 702-11

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	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	3	.4	.50
CALM+ - 3.5	14	12	9	11	14	6	7	8	8	15	15	25	31	13	17	19	224	27.2	1.84
3.6 - 7.5	31	19	27	24	24	17	13	3	10	36	37	32	56	40	40	47	460	55.8	5.12
7.6 - 12.5	8	10	8	8	5	2	2	0	10	8	10	2	3	14	25	14	129	15.6	9.06
12.6 - 18.5	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3	4	9	1.1	13.63
18.6 - 24.5	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	.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	53	42	45	44	47	25	22	11	28	54	63	59	90	68	85	84	825	.0	3.60
PERCENT	6.4	5.1	5.5	5.3	5.7	3.0	2.7	1.3	3.4	7.2	7.6	7.2	10.9	8.2	10.3	10.2	100.0		
AV SPD	5.0	5.0	5.4	5.4	4.7	4.8	4.5	2.9	5.6	5.2	5.0	3.9	4.4	5.7	6.3	6.1			
AVERAGE SPEED FOR THIS TABLE EQUALS 5.2																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 16																			

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
 FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2
 SITE TMI
 PERIOD OF RECORD FROM 76070101 TO 76100408
 SPEED AND DIRECTION FROM 100FT LEVEL
 TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

REQUEST NUMBER 702-11

POOR ORIGINAL

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	1	0	0	0	0	0	0	0	0	0	4	1.5	.50
CALM+ - 3.5	11	9	5	7	13	15	5	3	6	12	19	8	11	12	16	14	166	61.0	1.86
3.6 - 7.5	9	1	6	5	6	7	7	2	3	3	2	11	12	7	7	13	101	37.1	4.76
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	.4	9.40
12.6 - 18.5	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	.00
24.6 - 32.5	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	.00
TOTAL	20	10	13	13	19	22	13	5	9	15	21	19	23	19	23	28	272	.0	2.09
PERCENT	7.4	3.7	4.8	4.8	7.0	8.1	4.8	1.8	3.3	5.5	7.7	7.0	8.5	7.0	8.5	10.3	100.0		
AV SPD	3.3	2.2	2.6	2.7	3.0	3.2	3.4	2.5	2.8	2.3	2.1	3.5	3.5	3.4	3.2	4.1			
AVERAGE SPEED FOR THIS TABLE EQUALS 3.1																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 14																			

1564 186

JOINT FREQUENCY TABLE OF WIND SPEED AND DIRECTION
 FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2
 SITE TMI
 PERIOD OF RECORD FROM 7/07/01 TO 7/01/04
 SPEED AND DIRECTION FROM 100FT LEVEL
 TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

REQUEST NUMBER 702-11

WIND DIRECTION

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEO MEAN SPEED (MPH)
CALM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	4.5	.50
3.5	1	0	1	0	5	3	1	1	1	3	2	1	3	1	2	0	25	56.4	1.65
7.5	0	0	0	0	3	0	1	0	1	1	0	0	5	0	2	4	17	38.6	4.45
12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
24.5	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	.00
TOTAL	1	0	1	0	9	4	2	1	2	4	2	1	8	1	4	4	44	100.0	1.92
PERCENT	2.3	.0	2.3	.0	20.5	9.1	4.5	2.3	4.5	9.1	4.5	2.3	18.2	2.3	9.1	9.1	100.0		
AV SPD	.6	.0	1.7	.0	3.3	1.6	3.2	1.4	3.4	2.9	1.9	1.0	3.5	2.7	2.9	4.5			

AVERAGE SPEED FOR THIS TABLE EQUALS 3.0
 MILES IN ABOVE TABLE WITH VARIABLE DIRECTION = 1

POOR ORIGINAL

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 1/6070107 TO 1/6100102

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

Attachment 2

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	.00
CALM - 3.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	2	15.4	2.26
3.6 - 7.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	6	46.2	4.97
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7.7	13.00
12.6 - 18.5	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	.00
24.6 - 32.5	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	1	0	4	0	1	5	13	.0	5.53
TOTAL	2	0	0	0	0	0	0	0	0	0	7.7	.0	30.8	.0	7.7	38.5	100.0		
PERCENT	15.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.0	.0	10.7	.0	6.1	4.9			
AV SPD	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.7	.0	10.7	.0	6.1	4.9			
AVERAGE SPEED FOR THIS TABLE EQUALS	7.2																		
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 -0.9
SITE TMI

REQUEST NUMBER 702-1123

PERIOD OF RECORD FROM 7/6070107 TO 1/6100102

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

POOR ORIGINAL

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	.00
CALM - 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	25.0	1.70
3.6 - 7.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	50.0	4.10
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	25.0	10.20
12.6 - 18.5	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	.00
24.6 - 32.5	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	1	1	1	1	4	.0	3.41
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	25.0	25.0	25.0	25.0	100.0		
PERCENT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	10.2	1.7	4.1			
AV SPD	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	10.2	1.7	4.1			
AVERAGE SPEED FOR THIS TABLE EQUALS	5.0																		
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION =	0																		

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8
SITE TMI

REQUEST NUMBER 702-1123

PERIOD OF RECORD FROM 74070107 TO 76100102
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

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	.00
CALM+ - 3.5	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	25.0	6.70
7.6 - 12.5	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	75.0	9.92
12.6 - 18.5	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	.00
24.6 - 32.5	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	.00
TOTAL	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	4	.0	6.70
PERCENT	25.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0	50.0	.0	.0	.0	100.0		
AV SPD	6.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8	10.2	.0	.0	.0			

AVERAGE SPEED FOR THIS TABLE EQUALS 9.2
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3
SITE TMI

REQUEST NUMBER 702-1123

PERIOD OF RECORD FROM 74070107 TO 76100102
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

POOR ORIGINAL

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	.00
CALM+ - 3.5	0	1	0	0	0	0	0	0	2	0	0	0	2	1	0	1	7	20.6	2.51
3.6 - 7.5	1	0	1	0	0	0	0	0	0	1	2	1	1	4	2	1	14	41.2	5.42
7.6 - 12.5	0	0	0	0	0	0	0	0	0	3	0	0	2	3	0	0	8	23.5	9.29
12.6 - 18.5	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	14.7	13.39
18.6 - 24.5	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	.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	1	1	1	0	0	0	0	0	2	4	3	1	5	8	2	2	34	.0	5.15
PERCENT	2.9	2.9	2.9	.0	.0	.0	.0	.0	5.9	23.5	8.8	2.9	14.7	23.5	5.9	5.9	100.0		
AV SPD	5.1	2.7	7.0	.0	.0	.0	.0	.0	3.3	11.5	8.0	4.2	5.7	6.5	5.8	3.5			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.1
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

1564 190

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.3 BUT LESS THAN OR EQUAL TO
SITE TM1

REQUEST NUMBER 702-1193

PERIOD OF RECORD FROM 76070107 TO 76100102

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

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	.00
CALM+ - 3.5	2	2	1	0	0	0	0	1	0	0	0	2	3	1	4	1	17	20.0	2.10
3.6 - 7.5	4	2	3	1	2	1	0	0	4	0	3	4	10	4	2	5	45	52.9	4.90
7.6 - 12.5	4	6	4	1	0	0	0	0	0	1	0	0	0	1	2	4	23	27.1	4.81
12.6 - 18.5	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	.00
24.6 - 32.5	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	.00
TOTAL	10	10	8	2	2	1	0	1	4	1	3	6	13	6	8	10	85	.0	4.27
PERCENT	11.8	11.8	9.4	2.4	2.4	1.2	.0	1.2	4.7	1.2	3.5	7.1	15.3	7.1	9.4	11.8	100.0		
AV SPD	6.1	6.6	6.4	7.4	4.5	4.3	.0	3.4	4.9	11.7	4.6	4.0	4.6	5.2	5.2	6.4			
AVERAGE SPEED FOR THIS TABLE EQUALS 5.6																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1																			

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2
SITE TM1

REQUEST NUMBER 702-1193

PERIOD OF RECORD FROM 76070107 TO 76100102

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

POOR ORIGINAL

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	.00
CALM+ - 3.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	60.0	3.02
3.6 - 7.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	40.0	4.82
7.6 - 12.5	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	.00
18.6 - 24.5	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	.00
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	.0	3.51
PERCENT	60.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	20.0	100.0		
AV SPD	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	5.0			
AVERAGE SPEED FOR THIS TABLE EQUALS 3.7																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0																			

1564 191

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2

REQUEST NUMBER 702-1123

SITE TM1

PERIOD OF RECORD FROM 76070107 TO 76100102

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEOMEA SPD(MPH)
CALM	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	-0.00
3.6 - 7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100.0	4.60
7.6 - 12.5	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	-0.00
18.6 - 24.5	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	-0.00
32.6 - 40.5	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	0	0	1	1	-0	4.60
PERCENT	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	100.0	100.0	-0	-0.00
AV SPD	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	4.6	4.6	-0	-0.00

AVERAGE SPEED FOR THIS TABLE EQUALS 4.6
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

POOR ORIGINAL

SPEED		SUMMARY												TABLE				NNW				TOTAL		PERCENT									
CALM		ENE		NE		NNE		N		E		ESE		SE		SSE		SW		WSW		W		WNW		NW		NNW		TOTAL		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	0	0	0	0	0	0		
3.5	3.5	1	1	1	1	3	3	5	8	0	0	0	0	0	0	1	2	0	0	2	2	5	5	2	8	6	5	3	30	30	20.5	20.5	
7.5	7.5	4	4	4	4	6	6	8	12	2	1	1	1	1	1	4	4	5	5	5	5	12	12	8	13	13	71	71	71	71	44.6	44.6	
12.5	12.5	1	1	4	4	6	6	8	12	2	1	1	1	1	1	4	4	5	5	5	5	12	12	8	13	13	71	71	71	71	26.7	26.7	
18.5	18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24.5	24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32.5	32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	11.6	17	11	7.5	6.2	9	2	1.4	1.4	2	1.4	.7	.7	1	1	1	6	7	4.8	5.5	17.1	25	15.1	10.3	15	13	8.4	13.7	100.0	100.0	100.0	100.0	
PERCENT																																	

POOR ORIGINAL

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0

REQUEST NUMBER 702-12

SITE TM1
PERIOD OF RECORD FROM 76100409 TO 76123124
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

Attachment 3

SPEED (MPH)	WIND DIRECTION																TOTAL	PERCENT	GEO MEAN SPD (MPH)
	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	.0	.00
CALM - 3.5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3	6	4.6	2.52
3.6 - 7.5	1	0	0	0	0	1	0	2	2	4	7	4	5	2	4	7	39	29.6	5.52
7.6 - 12.5	1	0	0	0	0	1	0	0	1	7	5	8	9	9	11	0	52	39.7	9.95
12.6 - 18.5	0	0	0	0	0	0	0	0	0	3	0	0	7	7	4	1	27	20.6	11.17
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	6	4.6	20.92
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	.4	25.00
32.6 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	3	1	0	0	0	2	0	3	3	14	12	12	21	20	26	14	131	.0	7.60
PERCENT	2.3	.8	.0	.0	.0	1.5	.0	2.3	2.3	10.7	9.2	9.2	16.0	15.3	19.8	10.7	100.0		
AV SPD	5.5	1.9	.0	.0	.0	7.4	.0	4.3	6.6	10.3	7.6	8.6	11.3	12.9	11.6	9.4			
AVERAGE SPEED FOR THIS TABLE EQUALS 10.2																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

REQUEST NUMBER 702-12

SITE TM1
PERIOD OF RECORD FROM 76100409 TO 76123124
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

POOR ORIGINAL

SPEED (MPH)	WIND DIRECTION																TOTAL	PERCENT	GEO MEAN SPD (MPH)
	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	.0	.00
CALM - 3.5	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	2	5	16.1	2.31
3.6 - 7.5	0	0	0	0	0	1	0	1	0	2	0	2	0	2	0	1	9	29.0	5.23
7.6 - 12.5	0	0	0	0	0	0	0	0	2	3	0	0	1	1	2	0	9	29.0	10.40
12.6 - 18.5	0	0	0	0	0	0	0	0	0	1	0	0	1	3	1	0	6	19.4	15.91
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3.2	22.70
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3.2	25.10
32.6 -	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	1	1	1	2	6	1	2	2	8	3	3	31	.0	5.95
PERCENT	.0	.0	.0	.0	3.2	3.2	3.2	3.2	6.5	19.4	3.2	6.5	6.5	25.8	9.7	9.7	100.0		
AV SPD	.0	.0	.0	.0	3.3	6.7	1.9	3.9	9.6	9.4	1.8	5.8	12.7	14.7	13.5	4.1			
AVERAGE SPEED FOR THIS TABLE EQUALS 9.7																HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1			

1564 194

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8
SITE TMI

REQUEST NUMBER 702-12

PERIOD OF RECORD FROM 76100409 TO 76123124
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

	WIND DIRECTION																TOTAL	PERCENT	GEO MEAN
SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW			SPD (MPH)
CALM	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	3	0	0	0	0	0	0	0	0	3	7.5	3.40
3.6 - 7.5	0	0	0	0	0	0	1	1	0	1	0	2	2	1	0	2	10	25.0	5.73
7.6 - 12.5	1	0	0	0	0	0	1	0	2	4	1	0	0	2	1	1	13	32.5	10.05
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	2	9	22.5	14.53
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	10.0	2.7
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2.5	25.40
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.0
TOTAL	1	0	0	0	0	0	2	4	2	5	1	2	4	8	6	5	40	.0	8.5
PERCENT	2.5	.0	.0	.0	.0	.0	5.0	10.0	5.0	12.5	2.5	5.0	10.0	20.0	15.0	12.5	100.0		
AV SPD	7.7	.0	.0	.0	.0	.0	6.6	4.4	9.8	10.0	11.3	5.4	9.1	15.9	17.2	9.9			
AVERAGE SPEED FOR THIS TABLE EQUALS 11.2																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0																			

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3
SITE TMI

REQUEST NUMBER 702-12

PERIOD OF RECORD FROM 76100409 TO 76123124
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

	WIND DIRECTION																TOTAL	PERCENT	GEO MEAN
SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW			SPD (MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
CALM+ - 3.5	4	4	7	9	5	2	4	5	2	1	4	2	0	4	8	9	70	12.6	2.72
3.6 - 7.5	8	2	5	5	9	14	10	11	27	15	13	21	19	15	15	21	210	37.9	5.27
7.6 - 12.5	1	0	0	2	4	5	3	2	9	17	8	6	30	39	31	11	164	30.3	9.57
12.6 - 18.5	0	0	0	0	0	0	0	0	0	5	0	0	9	36	17	4	71	12.8	14.90
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	2	0	1	15	10	1	29	5.2	20.88
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	6	1.1	28.68
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.00
TOTAL	13	6	12	16	14	21	17	18	38	38	27	29	59	110	86	46	554	.0	6.19
PERCENT	2.3	1.1	2.2	2.9	3.2	3.8	3.1	3.2	6.9	6.9	4.9	5.2	10.6	19.9	15.5	8.3	100.0		
AV SPD	4.0	3.2	3.8	4.3	5.6	5.9	5.7	5.1	6.4	4.5	7.1	6.4	9.3	12.7	12.1	7.1			
AVERAGE SPEED FOR THIS TABLE EQUALS 8.8																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 7																			

POOR ORIGINAL

1564 195

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -0.3 BUT LESS THAN OR EQUAL TO 0.8

PERIOD OF RECORD FROM 76100409 10 76123124
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

SITE TMI

WIND DIRECTION

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GFD MEAN SPD (100FT)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
CALM - 3.5	4	7	5	3	4	6	5	5	1	5	3	3	5	4	6	10	75	17.0	2.0
3.6 - 7.5	8	3	6	10	13	8	7	10	19	15	19	17	17	9	14	24	213	47.0	5.33
7.6 - 12.5	3	0	0	1	6	4	2	1	14	12	5	4	22	22	18	11	125	28.0	9.12
12.6 - 18.5	0	0	0	0	0	1	0	0	0	1	0	0	3	8	8	5	26	5.8	14.71
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1.3	2.03
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
32.6 - TOTAL	15	10	11	14	23	19	14	17	34	33	27	26	65	47	41	50	446	0.0	5.1
PERCENT	3.4	2.2	2.5	3.1	5.2	4.3	3.1	3.8	7.6	7.4	6.1	5.8	14.6	10.5	9.2	11.2	100.0		
AV SPD	5.3	3.1	3.8	4.4	5.9	6.2	5.0	5.7	7.1	6.9	5.8	5.3	7.2	10.1	9.4	6.7			
AVERAGE SPEED FOR THIS TABLE EQUALS 6.9																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 4																			

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -0.8 BUT LESS THAN OR EQUAL TO 2.2

PERIOD OF RECORD FROM 76100409 10 76123124
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

SITE TMI

WIND DIRECTION

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GFD MEAN SPD (100FT)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
CALM - 3.5	4	4	3	4	4	5	9	1	4	4	8	7	4	8	6	6	81	36.7	2.0
3.6 - 7.5	4	1	0	0	5	1	2	4	1	3	0	6	11	1	4	9	58	26.2	7.05
7.6 - 12.5	3	0	0	0	1	1	2	2	1	1	2	4	4	2	7	9	43	19.5	9.55
12.6 - 18.5	3	0	0	0	0	0	0	0	0	1	2	0	8	3	5	5	27	12.2	15.25
18.6 - 24.5	2	0	0	0	0	0	0	0	0	1	0	0	0	3	3	3	12	5.4	20.98
24.6 - 32.5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
32.6 - TOTAL	16	5	3	4	10	7	13	7	6	10	18	17	31	17	25	32	221	0.0	4.11
PERCENT	7.2	2.3	1.4	1.8	4.5	3.2	5.9	3.2	2.7	4.5	8.1	7.7	14.0	7.7	11.3	14.5	100.0		
AV SPD	10.0	2.2	2.3	2.7	4.5	4.0	3.9	4.2	3.9	6.4	5.6	5.0	9.1	8.8	9.4	9.2			
AVERAGE SPEED FOR THIS TABLE EQUALS 7.2																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 5																			

POOR ORIGINAL

JOINT PUBLICATION

FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2
 SITE TM
 PERIOD OF RECORD FROM 74100409 TO 70123124
 SPEED AND DIRECTION FROM 100FT LEVEL
 TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEOM. MEAN SPD(40m)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-CALM+	8	3	6	6	7	4	3	3	9	8	10	6	6	3	10	6	98	22.4	2.55
3.6	11	5	1	7	11	11	13	8	4	11	19	25	22	11	9	23	191	43.7	5.38
7.6	6	1	0	6	5	5	2	0	3	8	5	7	13	14	15	15	99	22.7	9.73
-12.6	3	0	0	0	0	0	0	0	1	5	1	1	2	9	5	13	40	9.2	12.11
18.6	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	4	8	1.8	23.56
24.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.2	0.18
32.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
TOTAL	29	9	7	13	3	20	19	11	17	32	35	39	43	39	41	61	437	0	14.4
PERCENT	6.6	2.1	1.6	3.0	5.3	4.6	4.1	2.5	3.9	7.3	8.0	8.9	9.8	8.9	9.4	14.0	100.0	0	
AV SPD	7.1	5.0	2.9	4.3	5.7	5.6	5.1	4.4	5.4	7.4	5.6	6.2	7.5	9.8	8.6	9.5			
AVERAGE SPEED FOR THIS TABLE	7.1																		
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION	4																		

POOR ORIGINAL

1564 197

SPEED	N	NNE	NE	ENE	SUMMARY			TABLE		SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT
CALM	0	0	0	0	F	ESL	SE	SSE	S	0	0	0	0	0	0	0	0	0.0
3.5	21	19	21	22	21	17	22	18	16	18	26	20	13	19	30	34	334	14.2
7.5	32	11	12	22	38	36	33	37	53	51	64	77	96	41	40	87	730	34.2
12.5	15	1	0	3	16	16	10	5	32	52	26	24	43	84	85	47	564	27.4
18.5	6	0	0	0	0	1	0	0	1	16	3	1	32	64	47	30	206	11.1
24.5	3	0	0	0	0	0	0	0	0	1	2	0	1	28	20	10	66	3.5
32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	1	10	.5
32.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	77	31	33	47	75	70	65	61	102	138	141	127	225	249	228	411	1460	100.0
PERCENT	4.1	1.7	1.6	2.5	4.0	3.6	3.5	3.3	5.5	7.4	8.5	6.8	12.1	13.4	12.3	11.3	100.0	

POOR ORIGINAL

1564 198

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) LESS THAN OR EQUAL TO -1.0

REQUEST NUMBER 702-12R3

SITE TMI

PERIOD OF RECORD FROM 76100409 TO 76123103

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

Attachment 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	.00
CALM - 3.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	4.3	2.64
3.6 - 7.5	1	0	0	0	0	0	0	2	2	2	5	2	2	0	2	6	24	25.5	5.51
7.6 - 12.5	1	0	0	0	0	0	0	0	1	2	4	7	7	8	9	0	39	41.5	9.86
12.6 - 18.5	0	0	0	0	0	0	0	0	0	1	0	0	7	6	9	1	24	25.5	15.03
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3.2	27.25
24.6 - 32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	30
32.6+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	30
TOTAL	3	0	0	0	0	0	0	2	3	5	9	9	16	16	21	10	94	.0	8
PERCENT	3.2	.0	.0	.0	.0	.0	.0	2.1	3.2	5.3	9.6	9.6	17.0	17.0	22.3	10.6	100.0		
AV SPD	5.5	.0	.0	.0	.0	.0	.0	4.9	6.6	9.5	7.6	9.3	12.5	13.6	11.8	5.8			

AVERAGE SPEED FOR THIS TABLE EQUALS 10.3

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

REQUEST NUMBER 702-12R3

SITE TMI

PERIOD OF RECORD FROM 76100409 TO 76123103

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

POOR ORIGINAL

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	
CALM - 3.5	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	4	21.1	2
3.6 - 7.5	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	6	31.6	4.78
7.6 - 12.5	0	0	0	0	0	0	0	0	2	1	0	0	1	1	1	0	6	31.6	9.91
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	15.8	15.64
18.6 - 24.5	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	.00
32.6+	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	1	1	2	2	0	2	2	5	1	2	19	.0	5.19
PERCENT	.0	.0	.0	.0	5.3	.0	5.3	5.3	10.5	10.5	.0	10.5	10.5	26.3	5.3	10.5	100.0		
AV SPD	.0	.0	.0	.0	3.3	.0	1.9	3.9	9.6	7.5	.0	5.8	12.7	10.4	9.9	2.7			

AVERAGE SPEED FOR THIS TABLE EQUALS 7.8

HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 0

1564 199

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.9 BUT LESS THAN OR EQUAL TO -.8

REQUEST NUMBER 702-1243

SITE TH1

PERIOD OF RECORD FROM 76100409 TO 76123103

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

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	.00
CALM - 3.5	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	6.0	3.45
3.6 - 7.5	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	1	7	24.0	5.67
7.6 - 12.5	0	0	0	0	0	0	1	0	2	3	1	0	0	1	1	1	10	40.0	14.08
12.6 - 16.5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	6	24.0	.20
16.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0	.60
24.6 - 32.5	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	.00
TOTAL	0	0	0	0	0	0	2	3	2	4	1	1	3	2	3	4	25	.0	7.74
PERCENT	.0	.0	.0	.0	.0	.0	8.0	12.0	8.0	16.0	4.0	4.0	12.0	8.0	12.0	16.0	100.0		
AV SPD	.0	.0	.0	.0	.0	.0	6.6	4.8	9.8	9.7	11.3	5.4	8.0	12.2	13.8	11.0			

AVERAGE SPEED FOR THIS TABLE EQUALS 9.7
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION 4

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN -.8 BUT LESS THAN OR EQUAL TO -.3

REQUEST NUMBER 702-1243

SITE TH1

PERIOD OF RECORD FROM 76100409 TO 76123103

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

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	.00
CALM - 3.5	1	2	0	4	1	0	2	4	1	1	1	2	0	3	3	3	28	9.9	2.62
3.6 - 7.5	3	0	1	1	2	7	7	3	7	7	9	15	14	9	10	8	103	36.5	5.46
7.6 - 12.5	1	0	0	1	4	2	3	2	3	7	4	3	25	23	26	8	112	39.7	9.51
12.6 - 16.5	0	0	0	0	0	0	0	0	0	0	0	0	4	16	11	3	34	12.1	14.36
16.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	1.4	19.70
24.6 - 32.5	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	.00
TOTAL	5	2	1	6	7	9	12	9	11	15	14	20	43	54	52	22	262	.0	6.53
PERCENT	1.8	.7	.4	2.1	2.5	3.2	4.3	3.2	3.9	5.3	5.0	7.1	15.2	19.1	18.4	7.8	100.0		
AV SPD	4.7	2.4	2.4	4.7	7.1	6.4	6.1	4.8	6.4	7.2	5.7	6.2	8.9	10.7	10.3	8.5			

AVERAGE SPEED FOR THIS TABLE EQUALS 8.4
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION 4

POOR ORIGINAL

1564 200

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN .3 BUT LESS THAN OR EQUAL TO .8
SITE TMI

PERIOD OF RECORD FROM 76100409 TO 76123103

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

SPEED (MPH)	WIND DIRECTION																TOTAL	PERCENT	GEOM MEAN SPD (MPH)
	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	.0	.00
CALM+ - 3.5	1	1	2	0	2	2	3	1	0	4	1	2	3	3	0	4	29	14.3	2.27
3.6 - 7.5	1	2	3	4	4	3	2	7	8	6	15	10	28	5	4	14	116	57.1	5.34
7.6 - 12.5	1	0	0	0	1	0	0	0	6	4	0	0	0	2	4	4	10	4.9	14.12
12.6 - 18.5	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	.00
24.6 - 32.5	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	.00
TOTAL	3	3	5	4	7	5	5	8	14	14	16	12	40	19	20	24	203	.0	5.00
PERCENT	1.5	1.5	2.5	2.0	3.4	2.5	2.5	3.9	6.9	6.9	7.9	5.9	19.7	9.4	9.9	11.8	100.0		
AV SPD	5.5	3.8	3.4	4.4	4.8	4.6	3.9	4.9	7.9	6.0	5.2	4.5	6.2	7.6	10.0	7.1			
AVERAGE SPEED FOR THIS TABLE EQUALS 6.4																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 2																			

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN .8 BUT LESS THAN OR EQUAL TO 2.2
SITE TMI

PERIOD OF RECORD FROM 76100409 TO 76123103

SPEED AND DIRECTION FROM 100FT LEVEL

TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

REQUEST NUMBER 702-1243

POOR ORIGINAL

SPEED (MPH)	WIND DIRECTION																TOTAL	PERCENT	GEOM MEAN SPD (MPH)
	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	.0	.00
CALM+ - 3.5	2	3	1	1	4	3	6	1	3	4	4	5	3	5	3	1	49	46.2	2.15
3.6 - 7.5	2	0	0	0	2	1	0	2	1	3	4	4	7	0	2	6	34	32.1	4.00
7.6 - 12.5	0	0	0	0	1	0	1	0	0	0	1	2	5	0	0	2	12	11.3	9.00
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	0	5	4.7	16.23
18.6 - 24.5	0	0	0	0	0	0	0	0	0	1	0	0	0	3	2	0	6	5.7	20.34
24.6 - 32.5	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	.00
TOTAL	4	3	1	1	7	4	7	3	4	8	11	11	15	9	9	9	106	.0	3.36
PERCENT	3.8	2.8	.9	.9	6.6	3.8	6.6	2.8	3.8	7.5	10.4	10.4	14.2	8.5	8.5	8.5	100.0		
AV SPD	3.9	1.4	2.6	2.6	4.0	3.1	3.4	4.1	2.8	5.3	6.4	4.8	6.7	10.1	10.0	5.5			
AVERAGE SPEED FOR THIS TABLE EQUALS 5.7																			
HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION = 1																			

↑ 564 201

JOINT FREQUENCY TABLES OF WIND SPEED AND DIRECTION
FOR TEMPERATURE DIFFERENCE (DEG F/100FT) GREATER THAN 2.2

REQUEST NUMBER 702-1283

PERIOD OF RECORD FROM 76100404 TO 76123103
SPEED AND DIRECTION FROM 100FT LEVEL
TEMPERATURE DIFFERENCE BETWEEN 150FT AND 25FT

JOINT FREQUENCY TABLES FOR SPECIFIED DATES IN THE PERIOD OF RECORD ABOVE

WIND DIRECTION

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	PERCENT	GEOM MEAN SPD(MPH)
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CALM*	2	1	6	4	4	2	1	3	8	8	5	3	4	3	4	2	60	45.5	2.22
3.6 - 7.5	1	0	1	3	2	3	0	3	0	6	10	10	8	1	1	4	53	41.1	5.10
7.6 - 12.5	0	1	0	0	1	0	0	0	0	0	1	2	3	4	0	1	13	10.1	7.76
12.6 - 18.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	2.3	12.00
18.6 - 24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	3	2	7	7	7	5	1	6	8	14	16	15	15	8	8	7	129	0	3.30
PERCENT	2.3	1.6	5.4	5.4	5.4	3.9	0.6	4.7	6.2	10.9	12.4	11.6	11.6	6.2	6.2	5.4	100.0	0	
AV SPD	3.7	5.2	2.9	3.9	3.8	3.5	1.5	3.4	3.0	3.6	4.6	5.4	5.7	6.4	7.4	4.9		0	
AVERAGE SPEED FOR THIS TABLE EQUALS HOURS IN ABOVE TABLE WITH VARIABLE DIRECTION =	4.6 3																		

POOR ORIGINAL

1564 202

SPEED		C U M M A R Y										T A B L E		S S W		S W		W S W		W		W N W		N W		N N W		T O T A L		P E R C E N T	
C A L M		F		E S E		S E		S		S S W		S W		W S W		W		W N W		N W		N N W		T O T A L		P E R C E N T					
3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7.5	7	12	7	13	11	12	12	12	12	17	17	11	11	12	12	10	10	14	14	10	10	15	15	176	176	26.5	26.5				
12.5	8	10	14	10	19	18	18	18	18	26	26	43	43	44	44	61	61	17	17	19	19	39	39	343	343	40.0	40.0				
18.5	3	7	2	5	2	14	14	14	14	17	17	11	11	14	14	50	50	46	46	49	49	18	18	246	246	28.0	28.0				
24.5	0	0	0	0	0	0	0	0	0	1	1	2	2	0	0	13	13	28	28	31	31	10	10	85	85	9.9	9.9				
32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	1.6	1.6				
TOTAL	18	29	23	28	32	44	44	44	44	62	62	67	67	70	70	134	134	113	113	114	114	82	82	858	858	100.0	100.0				
P E R C E N T	2.1	3.4	2.7	3.3	3.7	5.1	5.1	5.1	5.1	7.2	7.2	7.8	7.8	8.2	8.2	15.6	15.6	13.2	13.2	13.3	13.3	9.6	9.6	100.0	100.0						

POOR ORIGINAL

1564 203