Supplemental Information

Facility TMI-1 License DPR 50-289

1. Regulatory Limits

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

   } - TMI-1 - Unit I Tech Spec. Appendix A

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 20, Appendix B Table II

3. Average Energy

   Provide the average energy ($\bar{E}$) of the radionuclide mixture in releases of fission and activation gases, if applicable. $\bar{E}$ = 1.404 E-1

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 Spectroscopy, liquid scintillation
   b. Iodines: Gamma Spectroscopy
   c. Particulates: Gamma Spectroscopy, gas flow proportional, beta spectroscopy
   d. Liquid effluents: Gamma Spectroscopy, liquid scintillation

5. Batch Releases

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

	3rd Quarter	4th Quarter
a. Liquid		
1. Number of batch releases:	40	32
2. Total time period for batch releases: (min.)	29426	32337
3. Maximum time period for a batch release: (min.)	3378	4670
4. Average time period for batch releases: (min.)	736	1011
5. Minimum time period for a batch release: (min.)	50	140
6. Average stream flow during periods of release of effluent into a flowing stream: (CFM)	4.72E5	2.08E6
b. Gaseous		
1. Number of batch releases:	55	34
2. Total time period for batch releases: (min.)	132,072	81,226
3. Maximum time period for a batch release: (min.)	45,320	23,025
4. Average time period for batch releases: (min.)	2,401	2,389
5. Minimum time period for a batch release: (min.)	60	527
6. Abnormal Releases		
a. Liquid		
1. Number of releases	0	0
2. Total activity releases:	N/A	N/A
b. Gaseous		
1. Number of releases:	2	0
2. Total activity released (curies)	6.93	N/A

TABLE 1A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Unit	Quarter 3rd	Quarter 4th	Est. Total Error, %
A. Fission & activation gases				
1. Total release	Ci	6.94E0	1.32E1	2.5E1
2. Average release rate for period	µCi/sec	8.73E-1	1.66E0	
3. Percent of technical specification limit	%	*	*	
B. Iodines				
1. Total iodine - 131	Ci	<1.00E-8	<1.00E-8	N/A
2. Average release rate for period	µCi/sec	N/A	N/A	
3. Percent of technical specification limit	%	0	0	
C. Particulates				
1. Particulates with half-lives > 8 days	Ci	1.26E-7	1.75E-5	2.5E1
2. Average release rate for period	µCi/sec	1.58E-8	2.20E-6	
3. Percent of technical specification limit	%	*	*	
4. Gross alpha radioactivity	Ci	<1.00E-11	<1.00E-11	
D. Tritium				
1. Total release	Ci	1.32E-5	6.77E-4	2.5E1
2. Average release rate for period	µCi/sec	1.66E-6	8.52E-5	
3. Percent of technical specification limit	%	*	*	

Note: All less than (<) values are in µCi/cc.

*% Tech Spec limits: Listed on Dose Summary Table

TABLE 1C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

		Continuous Mode		Batch Mode	
Nuclides Released	Unit	Quarter 3rd	Quarter 4th	Quarter 3rd	Quarter 4th
1. Fission gases					
krypton-85	Ci	<8.00E-6	<8.00E-6	6.94E0	1.32E1
krypton-85m	Ci	<5.00E-8	<5.00E-8	<5.00E-8	<5.00E-8
krypton-87	Ci	<8.00E-8	<8.00E-8	<8.00E-8	<8.00E-8
krypton-88	Ci	<1.00E-7	<1.00E-7	<1.00E-7	<1.00E-7
xenon-133	Ci	<8.00E-8	<8.00E-8	<8.00E-8	<8.00E-8
xenon-135	Ci	<5.00E-8	<5.00E-8	<5.00E-8	<5.00E-8
xenon-135m	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
xenon-138	Ci	<3.00E-7	<3.00E-7	<3.00E-7	<3.00E-7
Others (specify)	Ci				
	Ci				
	Ci				
unidentified	Ci				
Total for period	Ci	N/A	N/A	6.94E0	1.32E1
2. Iodines					
iodine-131	Ci	<1.00E-12	<1.00E-12	<1.00E-8	<1.00E-8
iodine-133	Ci	<1.00E-10	<1.00E-10	<1.00E-8	<1.00E-8
iodine-135	Ci	<1.00E-10	<1.00E-10	<1.00E-8	<1.00E-8
Total for period	Ci	N/A	N/A	N/A	N/A
3. Particulates					
strontium-89	Ci	<1.00E-11	<1.00E-11	-	-
strontium-90	Ci	1.12E-7	<1.00E-11	-	-
cesium-134	Ci	<1.00E-11	<1.00E-11	<1.00E-8	<1.00E-8
cesium-137	Ci	1.40E-8	1.75E-5	<1.00E-8	<1.00E-8
barium-lanthanum-140	Ci	<1.00E-11	<1.00E-11	<1.00E-8	<1.00E-8

Note: All less than values (<) are in µCi/cc.

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Quarter 3rd	Quarter 4th	Est. Total Error, %
A. Fission and activation products				
1. Total release (not including tritium, gases, alpha)	Ci	2.08E-2	2.05E-2	2.5E1
2. Average diluted concentration during period	µCi/ml	1.44E-9	3.56E-10	
3. Percent of applicable limit	%	*	*	
B. Tritium				
1. Total release	Ci	8.79E-1	6.22E-1	2.5E1
2. Average diluted concentration during period	µCi/ml	6.10E-8	1.08E-8	
3. Percent of applicable limit	%	*	*	
C. Dissolved and entrained gases				
1. Total release	Ci	<1.00E-4	<1.00E-4	2.5E1
2. Average diluted concentration during period	µCi/ml	N/A	N/A	
3. Percent of applicable limit	%	-0-	-0-	
D. Gross alpha radioactivity				
1. Total Release	Ci	<LLD	<LLD	2.5E1
E. Volume of waste released (prior to dilution)	liters	7.05E6	7.41E6	1.0E1
F. Volume of dilution water used during period.	liters	1.44E10	5.74E10	1.0E1

Note: All less than values (<) are in µCi/ml.

*% Tech. Spec. Limits: Listed on Dose Summary Table.

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
LIQUID EFFLUENTS

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Quarter 3rd	Quarter 4th	Quarter 3rd	Quarter 4th
strontium-89	Ci	<5.00E-8	<5.00E-8	<5.00E-8	<5.00E-8
strontium-90	Ci	<5.00E-8	<5.00E-8	1.28E-4	1.36E-5
cesium-134	Ci	<5.00E-7	<5.00E-7	1.64E-3	1.90E-3
cesium-137	Ci	<5.00E-7	<5.00E-7	1.55E-2	1.79E-2
iodine-131	Ci	<1.00E-6	<1.00E-6	<1.00E-6	<1.00E-6
cobalt-58	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
cobalt-60	Ci	<5.00E-7	<5.00E-7	3.12E-3	3.80E-4
iron-59	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
zinc-65	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
manganese-54	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
chromium-51	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
zirconium-niobium-95	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
molybdenum-99	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
technetium-99m	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
barium-lanthanum-140	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
cerium-141	Ci	<5.00E-7	<5.00E-7	<5.00E-7	<5.00E-7
Other (specify)	Ci				
Iron-55	Ci	<1.00E-6	<1.00E-6	3.52E-4	2.49E-4
Autimony-125	Ci	<5.00E-7	<5.00E-7	8.98E-5	3.63E-5
Phosphorus-32	Ci	<1.00E-6	<1.00E-6	<1.00E-6	<1.00E-6
Total for period (above)	Ci	N/A	N/A	2.08E-2	2.05E-2
xenon-133	Ci	<1.00E-4	<1.00E-4	<1.00E-4	<1.00E-4
xenon-135	Ci	<1.00E-4	<1.00E-4	<1.00E-4	<1.00E-4

TABLE 3A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
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	6 MONTH PERIOD	EST. TOTAL ERROR, %
a. Spent resins, filter sludges,	m^3	179.745	
* evaporator bottoms, etc.	Ci	625.946	5
b. Dry compressible waste, contaiminated	m^3	203.727	
** equipment, etc.	Ci	14.668	5
c. Irradiated components, control rods,	m^3		
etc.	Ci		
d. Other (describe)	m^3	7.255	
*** Mechanical Filters	Ci	24.284	5

2. Estimate of major nuclide composition (by type of waste)		
a. N/A Co-60	2.6 %	
Cs-134	14.12%	
Cs-137	82.21%	
Sr-90	.67%	
b. Cs-137	7.2 %	
Co-60	80.51%	
Cs-134	.62%	
Sr-90	4.41%	
Sb-125	1.78%	
c. N/A		
d. Co-60	1.422%	
Cs-134	13.44%	
Cs-137	76.49%	
Sb-125	2.78%	

3. Solid Waste Disposition Number of Shipments	Mode of Transportation	Destination
a. Hittman Liners 14 Shipments	Tractor/Flatbed/Cask	Hanford, Washington
a. Hittman Liners 9 Shipments	Tractor/Flatbed/Cask	Barnwell, South Carolina
b. Drums & Boxes 18 Shipments	Tractor/Flatbed/Cask	Hanford,, Washington
d. Mechanical Filters 3 Shipments	Tractor/Cask	Hanford, Washington

B. Irradiated Fuel Shipments (Disposition)

Number of Shipments	Mode of Transportation	Destination

* - Shipped in 172.3 cu. ft. LSA Steel Liners Solidified with cement

** - Shipped in 7.5 cu. ft. type A Drums and 98 cu. ft. Steel LSA Boxes

*** - Shipped in 103.1 cu. ft. Steel Overpacks

ATTACHMENT - Joint Frequency Tables for 3rd Quarter (1983)

ATTACHMENT - Joint Frequency Tables for 4th Quarter (1983)

ATTACHMENT - Summary of Maximum Individual Dose Accumulation for Third Quarter of 1983

ATTACHMENT - Summary of Maximum Individual Dose Accumulation for Fourth Quarter of 1983

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SITE  THREE MILE ISLD                                   UN02/20004 26.46

              HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83070101-83093024
STABILITY CLASS:      A    DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
-----------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION           1-3   4-7   8-12  13-18  19-24    >24  TOTAL
----------          ---   ---   ----  -----  -----    ---  -----
 N                    7    15     1      0      0      0     23
 NNE                  4     5     1      0      0      0     10
 NE                   3    10     3      0      0      0     16
 ENE                  1     8     6      0      0      0     15
 E                    2     5     1      0      0      0      8
 ESE                  5     4     0      0      0      0      9
 SE                   2     6     4      0      0      0     12
 SSE                  5     8     6      0      0      0     19
 S                    9    13     4      0      0      0     26
 SSW                  5    16    13      0      0      0     34
 SW                   5    14     4      0      0      0     23
 WSW                 15     9     7      0      0      0     31
 W                    8     7     8      2      1      0     26
 WNW                 11    34    27     12      0      0     84
 NW                  13    41    58     19      1      0    132
 NNW                 14    39    15      0      0      0     68
-----------------------------------------------------------------------
 TOTAL              109   234   158     33      2      0    536
-----------------------------------------------------------------------
 PERIODS OF CALM(HOURS)       22
 VARIABLE DIRECTION      41
 HOURS OF MISSING DATA        3
```

```
SITE  THREE MILE ISLD                                   UN02/20004 26.46

              HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83070101-83093024
STABILITY CLASS       B    DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
-----------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION           1-3   4-7   8-12  13-18  19-24    >24  TOTAL
----------          ---   ---   ----  -----  -----    ---  -----
 N                    3     3     0      0      0      0      6
 NNE                  1     1     0      0      0      0      2
 NE                   0     7     1      0      0      0      8
 ENE                  1     3     0      0      0      0      4
 E                    1     0     0      0      0      0      1
 ESE                  0     2     0      0      0      0      2
 SE                   0     4     1      0      0      0      5
 SSE                  1     2     0      0      0      0      3
 S                    0     2     2      0      0      0      4
 SSW                  1     3     2      0      0      0      6
 SW                   0     3     2      0      0      0      5
 WSW                  2     0     0      0      0      0      2
 W                    2     0     1      0      0      0      3
 WNW                  1     5     2      0      0      0      8
 NW                   0     2     3      1      0      0      6
 NNW                  6     1     0      0      0      0      7
-----------------------------------------------------------------------
 TOTAL               19    38    14      1      0      0     72
-----------------------------------------------------------------------
 PERIODS OF CALM(HOURS)       22
 VARIABLE DIRECTION      10
 HOURS OF MISSING DATA        3
```

```
SITE  THREE MILE ISLD                                   UN02/20004 26.46

              HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83070101-83093024
STABILITY CLASS       C    DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
-----------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION           1-3   4-7   8-12  13-18  19-24    >24  TOTAL
----------          ---   ---   ----  -----  -----    ---  -----
 N                    1     2     0      0      0      0      3
 NNE                  0     2     0      0      0      0      2
 NE                   0     0     0      0      0      0      0
 ENE                  0     0     0      0      0      0      0
 E                    0     1     0      0      0      0      1
 ESE                  1     1     0      0      0      0      2
 SE                   0     1     0      0      0      0      1
 SSE                  0     2     0      0      0      0      2
 S                    0     1     0      0      0      0      1
 SSW                  2     2     0      0      0      0      4
 SW                   1     0     0      0      0      0      1
 WSW                  1     2     0      0      0      0      3
 W                    0     1     0      0      0      0      1
 WNW                  2     1     2      0      0      0      5
 NW                   0     1     0      1      0      0      2
 NNW                  1     0     2      1      0      0      4
-----------------------------------------------------------------------
 TOTAL                9    17     4      2      0      0     32
-----------------------------------------------------------------------
 PERIODS OF CALM(HOURS)       22
 VARIABLE DIRECTION      4
 HOURS OF MISSING DATA        3
```

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SITE  THREE MILE ISLD                                   UN02/20004 26.47

              HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83070101-83093024
STABILITY CLASS:      D    DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
-----------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION           1-3   4-7   8-12  13-18  19-24    >24  TOTAL
----------          ---   ---   ----  -----  -----    ---  -----
 N                    1    18     1      1      0      0     21
 NNE                  3     1     0      0      0      0      4
 NE                   6     6     1      0      0      0     13
 ENE                  0     5     0      0      0      0      5
 E                   10     5     0      0      0      0     15
 ESE                  8    11     0      0      0      0     19
 SE                   3    19     5      0      0      0     27
 SSE                  5    14     5      0      0      0     24
 S                    4    21    18      0      0      0     43
 SSW                  9    10     2      0      0      0     21
 SW                  10     3     1      0      0      0     14
 WSW                  6     7     0      2      0      0     15
 W                    4     5     1      0      0      0     10
 WNW                  4     9     2      2      0      0     17
 NW                   1    10     7      4      2      0     24
 NNW                  4     7     3      2      0      0     16
-----------------------------------------------------------------------
 TOTAL               78   151    46     11      2      0    288
-----------------------------------------------------------------------
 PERIODS OF CALM(HOURS)       22
 VARIABLE DIRECTION      24
 HOURS OF MISSING DATA        3
```

3rd Quarter 1983

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SITE  THREE MILE ISLD.                                   UN02/20M04 26.40

                 HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD =      83070101-83093024
 STABILITY CLASS         E      DT/DZ
 ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
 ----------------------------------------------------------------------
                             WIND SPEED(MPH)
   WIND
 DIRECTION          1-3    4-7   8-12  13-18  19-24    >24  TOTAL
 ----------         ---    ---   ----  -----  -----    ---  -----
  N                  11     37      6      2      0      0     56
  NNE                 9     18      1      0      0      0     28
  NE                 10      7      0      0      0      0     17
  ENE                10      3      1      0      0      0     14
  E                  17     18      0      0      0      0     28
  ESE                26      9      0      0      0      0     35
  SE                 13     18      0      0      0      0     29
  SSE                14     25      1      0      0      0     40
  S                  17     33      0      0      0      0     50
  SSW                32     16      6      0      0      0     54
  SW                 33     20      1      0      0      0     54
  WSW                36     11      1      0      0      0     48
  W                  36     18      4      1      0      0     59
  WNW                14     16     21      0      0      0     51
  NW                 12     14     21      5      0      0     52
  NNW                16     27      7      1      0      0     51
 ----------------------------------------------------------------------
  TOTAL             306    290     70      9      0      0    675
 ----------------------------------------------------------------------
  PERIODS OF CALM(HOURS):      22
  VARIABLE DIRECTION       73
  HOURS OF MISSING DATA        3
```

```
SITE  THREE MILE ISLD.                                   UN02/20M04 26.40

                 HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD =      83070101-83093024
 STABILITY CLASS.        F      DT/DZ
 ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
 ----------------------------------------------------------------------
                             WIND SPEED(MPH)
   WIND
 DIRECTION          1-3    4-7   8-12  13-18  19-24    >24  TOTAL
 ----------         ---    ---   ----  -----  -----    ---  -----
  N                  15      8      0      0      0      0     23
  NNE                 7      2      0      0      0      0      9
  NE                  4      2      0      0      0      0      6
  ENE                 7      1      0      0      0      0      8
  E                  16      6      0      0      0      0     22
  ESE                22      8      0      0      0      0     30
  SE                 19      2      0      0      0      0     21
  SSE                22      1      0      0      0      0     23
  S                  30      4      0      0      0      0     34
  SSW                26      2      0      0      0      0     28
  SW                 15      4      0      0      0      0     19
  WSW                19      8      0      0      0      0     27
  W                  37      8      0      0      0      0     45
  WNW                16     16      1      0      0      0     33
  NW                  7     16      8      2      0      0     33
  NNW                23     18      1      0      0      0     42
 ----------------------------------------------------------------------
  TOTAL             285    106     10      2      0      0    403
 ----------------------------------------------------------------------
  PERIODS OF CALM(HOURS):      22
  VARIABLE DIRECTION       60
  HOURS OF MISSING DATA        3
```

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SITE  THREE MILE ISLD.                                   UN02/20M04 26.40

                 HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD =      83070101-83093024
 STABILITY CLASS:        G      DT/DZ
 ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
 ----------------------------------------------------------------------
                             WIND SPEED(MPH)
   WIND
 DIRECTION          1-3    4-7   8-12  13-18  19-24    >24  TOTAL
 ----------         ---    ---   ----  -----  -----    ---  -----
  N                   5      2      0      0      0      0      7
  NNE                 4      0      0      0      0      0      4
  NE                  3      0      0      0      0      0      3
  ENE                 3      0      0      0      0      0      3
  E                   7      7      0      0      0      0     14
  ESE                17      4      0      0      0      0     21
  SE                 19      2      0      0      0      0     21
  SSE                11      0      0      0      0      0     11
  S                  22      0      0      0      0      0     22
  SSW                21      1      0      0      0      0     22
  SW                 14      0      0      0      0      0     14
  WSW                 8      1      0      0      0      0      9
  W                   7      3      1      0      0      0     11
  WNW                11      3      0      0      0      0     14
  NW                  7      5      0      0      0      0     12
  NNW                 5      6      0      0      0      0     11
 ----------------------------------------------------------------------
  TOTAL             164     34      1      0      0      0    199
 ----------------------------------------------------------------------
  PERIODS OF CALM(HOURS):      22
  VARIABLE DIRECTION       18
  HOURS OF MISSING DATA:       3
```

4th Quarter 1983

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SITE  THREE MILE ISLD                                UN02/20N04 26 51

                  HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =      83100101 83123124
STABILITY CLASS         A     DT/DZ
ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
------------------------------------------------------------------
                         WIND SPEED(MPH)
   WIND
DIRECTION          1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------          ---   ---   ---- ----- -----    --- -----
 N                  10    17     3     3     0      0    33
 NNE                 2     6     0     0     0      0     8
 NE                  0     2     1     0     0      0     3
 ENE                 1     6     0     0     0      0     7
 E                   4     5     3     0     0      0    12
 ESE                10    11     7     0     0      0    28
 SE                  5     8     8     0     0      0    22
 SSE                 5     4     1     0     0      0    10
 S                   4     9     4     0     0      0    17
 SSW                 5    14     3     0     0      0    22
 SW                  3    10     6     1     0      0    20
 WSW                 2     4     8     3     0      0    17
 W                   3    15    17    11     2      0    48
 WNW                 6     7    15     4     2      2    36
 NW                  9     7    11    19     1      0    47
 NNW                11    24     4    10     2      0    51
-----------------------------------------------------------------
 TOTAL              80   149    91    51     7      2   381
-----------------------------------------------------------------
 PERIODS OF CALM(HOURS)      0
 VARIABLE DIRECTION     19
 HOURS OF MISSING DATA     144
```

```
SITE  THREE MILE ISLD                                UN02/20N04 26:52

                  HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =      83100101-83123124
STABILITY CLASS         B     DT/DZ
ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
------------------------------------------------------------------
                         WIND SPEED(MPH)
   WIND
DIRECTION          1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------          ---   ---   ---- ----- -----    --- -----
 N                   2     3     2     2     0      0     9
 NNE                 0     0     0     0     0      0     0
 NE                  2     1     0     0     0      0     3
 ENE                 0     4     0     0     0      0     4
 E                   0     3     1     0     0      0     4
 ESE                 0     5     3     0     0      0     8
 SE                  0     3     0     0     0      0     3
 SSE                 1     0     0     0     0      0     1
 S                   1     1     0     0     0      0     2
 SSW                 1     2     1     0     0      0     4
 SW                  1     0     0     2     0      0     3
 WSW                 1     1     3     1     0      0     6
 W                   2     4     9     6     1      0    22
 WNW                 5     2     2     2     3      0    14
 NW                  2     1     0     1     3      0     7
 NNW                 4     1     1     3     0      0     9
-----------------------------------------------------------------
 TOTAL              22    31    22    17     7      0    99
-----------------------------------------------------------------
 PERIODS OF CALM(HOURS)      0
 VARIABLE DIRECTION     5
 HOURS OF MISSING DATA     144
```

```
SITE  THREE MILE ISLD                                UN02/20N04 26:52

                  HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =      83100101-83123124
STABILITY CLASS         C     DT/DZ
ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
------------------------------------------------------------------
                         WIND SPEED(MPH)
   WIND
DIRECTION          1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------          ---   ---   ---- ----- -----    --- -----
 N                   1     0     1     0     0      0     2
 NNE                 0     1     0     0     0      0     1
 NE                  1     2     0     0     0      0     3
 ENE                 0     2     0     0     0      0     2
 E                   0     1     0     0     0      0     1
 ESE                 0     1     0     0     0      0     1
 SE                  1     1     0     0     0      0     2
 SSE                 0     0     0     0     0      0     0
 S                   0     0     0     0     0      0     0
 SSW                 0     1     0     0     0      0     1
 SW                  1     0     0     1     0      0     2
 WSW                 0     1     1     0     0      0     2
 W                   0     2     3     6     0      0    11
 WNW                 2     1     5     3     1      0    12
 NW                  0     2     2     2     1      0     7
 NNW                 0     2     1     2     0      0     5
-----------------------------------------------------------------
 TOTAL               6    17    13    14     2      0    52
-----------------------------------------------------------------
 PERIODS OF CALM(HOURS)      0
 VARIABLE DIRECTION     3
 HOURS OF MISSING DATA     144
```

```
SITE  THREE MILE ISLD                                UN02/20N04 26:53

                  HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =      83100101-83123124
STABILITY CLASS         D     DT/DZ
ELEVATION         SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
------------------------------------------------------------------
                         WIND SPEED(MPH)
   WIND
DIRECTION          1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------          ---   ---   ---- ----- -----    --- -----
 N                  11    18     8     0     0      0    37
 NNE                 5    16     0     0     0      0    21
 NE                  4    10     3     0     0      0    17
 ENE                 6    15     3     0     0      0    24
 E                   4    20     5     0     0      0    29
 ESE                 4    17    11     0     0      0    32
 SE                  1    13     6     1     0      0    21
 SSE                 4     2     3     1     0      0    11
 S                   1    11     4     0     0      0    16
 SSW                 8     9     0     0     0      0    17
 SW                  3     5     2     2     0      0    12
 WSW                 7     9     4     0     0      0    20
 W                   5    19    28    15     5      0    73
 WNW                 2    10    28    29     9      0    79
 NW                  3     8    24    18     3      0    56
 NNW                 3     5    11     1     0      0    21
-----------------------------------------------------------------
 TOTAL              71   187   140    67    17      0   486
-----------------------------------------------------------------
 PERIODS OF CALM(HOURS)      0
 VARIABLE DIRECTION     27
 HOURS OF MISSING DATA     144
```

4th Quarter 1983

```
SITE  THREE MILE ISLD                                  UN02/20N04 20.53

               HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83100101-83123124
STABILITY CLASS:       E     DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
--------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION         1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------         ---   ---   ---- ----- -----    --- -----
 N                 10    29     4     0     0      0    44
 NNE                8    13     1     0     0      0    22
 NE                 4     5     0     0     0      0     9
 ENE               12    13     2     0     0      0    28
 E                 19    29    20     8     0      0    76
 ESE               16    29     7     6     0      0    59
 SE                13    15     8     1     0      0    37
 SSE                6    10     4     0     0      0    21
 S                  7    21     3     0     0      0    31
 SSW                6    21     3     3     0      0    33
 SW                15    22    11     2     0      0    51
 WSW               11    28    12     2     0      0    53
 W                 15    32    15    13     2      0    80
 WNW                5    16    14    10     2      0    47
 NW                 4    28    11    17     1      0    61
 NNW               13    25    10     4     1      0    54
--------------------------------------------------------------------
 TOTAL            164   336   125    66     6      0   706
--------------------------------------------------------------------
 PERIODS OF CALM(HOURS)        0
 VARIABLE DIRECTION     47
 HOURS OF MISSING DATA      144
```

```
SITE  THREE MILE ISLD                                  UN02/20N04 26.54

               HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83100101-83123124
STABILITY CLASS        F     DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
--------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION         1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------         ---   ---   ---- ----- -----    --- -----
 N                  5     1     1     0     0      0     7
 NNE                4     0     0     0     0      0     4
 NE                 1     1     0     0     0      0     2
 ENE                4     0     0     0     0      0     4
 E                 12     2     0     0     0      0    14
 ESE               12     7     1     0     0      0    21
 SE                15     2     0     0     0      0    17
 SSE               11     2     0     0     0      0    13
 S                 15     2     0     0     0      0    18
 SSW               17     8     2     0     0      0    27
 SW                13     6     1     0     0      0    20
 WSW                8     7     0     0     0      0    16
 W                 11     7     0     0     0      0    18
 WNW               10     5     0     2     0      0    17
 NW                 5     3     0     0     0      0     8
 NNW                7     7     7     2     0      0    23
--------------------------------------------------------------------
 TOTAL            150    60    12     4     0      0   229
--------------------------------------------------------------------
 PERIODS OF CALM(HOURS)        0
 VARIABLE DIRECTION     20
 HOURS OF MISSING DATA      144
```

```
SITE  THREE MILE ISLD.                                 UN02/20N04 26.54

               HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD =     83100101-83123124
STABILITY CLASS:       G     DT/DZ
ELEVATION        SPEED SP100A  DIRECTION DI100A  LAPSE DT150A
--------------------------------------------------------------------
                         WIND SPEED(MPH)
  WIND
DIRECTION         1-3   4-7   8-12 13-18 19-24    >24 TOTAL
---------         ---   ---   ---- ----- -----    --- -----
 N                  0     0     1     0     0      0     1
 NNE                1     1     0     0     0      0     2
 NE                 3     0     0     0     0      0     3
 ENE                1     1     0     0     0      0     2
 E                  8     3     0     0     0      0    11
 ESE               16     2     0     0     0      0    18
 SE                15     2     0     0     0      0    17
 SSE                8     0     0     0     0      0     8
 S                 15     1     0     0     0      0    16
 SSW                8     3     0     0     0      0    11
 SW                 7     1     0     0     0      0     8
 WSW                4     0     0     0     0      0     4
 W                  4     0     0     0     0      0     4
 WNW                2     0     0     0     0      0     2
 NW                 3     0     0     0     0      0     3
 NNW                0     1     0     0     0      0     1
--------------------------------------------------------------------
 TOTAL             95    15     1     0     0      0   111
--------------------------------------------------------------------
 PERIODS OF CALM(HOURS)        0
 VARIABLE DIRECTION     14
 HOURS OF MISSING DATA      144
```

UNIT 1
Third Quarter Dose Report 1983

SUMMARY OF MAXIMUM INDIVIDUAL DOSES FOR UNIT 1 FROM July 1, 1983 through September 30, 1983

Effluent	Applicable Organ	Estimated Dose (mrem)	Age Group	Location Dist (m) Dir (toward)	% of Applicable Limit		10CFR50 App. I Limits (mrem)	
					Quarterly	Annual	Quarterly	Annual
Liquid	Total Body	1.89E-1	Adult	Receptor 1	12.6	6.3	1.5	3.0
Liquid	Liver	2.97E-1	Teen	Receptor 1	6.0	3.0	5.0	10.0
Noble Gas	Air Dose (gamma-mrad)	4.99E-6		2413 NNE	1.0E-5	5.0E-5	5.0	10.0
Noble Gas	Air Dose (beta-mrad)	5.66E-4		2413 NNE	5.66E-3	2.8E-3	10.0	20.0
Noble Gas	Total Body	2.02E-6	All	3200 NNE	--	4.0E-5	--	5.0
Noble Gas	Skin	2.43E-4	All	3200 NNE	--	1.6E-3	--	15.0
Iodine & Particulates	Bone	8.6E-5	Child	630 ESE	1.15E-3	5.7E-4	7.5	15.0

SUMMARY OF MAXIMUM POPULATION DOSES FOR UNIT 1 FROM July 1, 1983 through September 30, 1983

Effluent	Applicable Organ	Estimated Population Dose (person-rem)
Liquid	Total Body	5.2E-2
Liquid	Bone	1.1E-1
Gaseous	Total Body	1.5E-4
Gaseous	Skin	7.4E-3

UNIT 1

Fourth Quarter Dose Report 1983

SUMMARY OF MAXIMUM INDIVIDUAL DOSES FOR UNIT 1 FROM October 1, 1983 through December 31, 1983

Effluent	Applicable Organ	Estimated Dose (mrem)	Age Group	Location Dist (m) Dir (toward)	% of Applicable Limit		10CFR50 App. I Limits (mrem)	
					Quarterly	Annual	Quarterly	Annual
Liquid	Total Body	2.55E-1	Adult	Receptor 1	17	8.5	1.5	3.0
Liquid	Liver	3.81E-1	Teen	Receptor 1	7.6	3.9	5.0	10.0
Noble Gas	Air Dose (gamma-mrad)	8.88E-7		2413 WNW	1.8E-5	8.9E-6	5.0	10.0
Noble Gas	Air Dose (beta-mrad)	1.01E-4		2413 WNW	1.0E-3	5.0E-4	10.0	20.0
Noble Gas	Total Body	2.97E-6	All	500 WNW	--	5.9E-5	--	5.0
Noble Gas	Skin	3.56E-4	All	500 WNW	--	2.4E-3	--	15.0
Iodine & Particulates	Bone	1.99E-4	Child	500 WNW	2.7E-3	1.3E-3	7.5	15.0

SUMMARY OF MAXIMUM POPULATION DOSES FOR UNIT 1 FROM October 1, 1983 through December 31, 1983

Effluent	Applicable Organ	Estimated Population Dose (person-rem)
Liquid	Total Body	5.1E-2
Liquid	Liver	9.9E-2
Gaseous	Total Body	6.9E-4
Gaseous	Liver	1.5E-3

PLANT NAME: THREE MILE ISLAND UNIT -I
YEAR: 1983

TABLE I

MAXIMUM OFF-SITE DOSES AND DOSE COMMITMENTS TO MEMBERS OF THE PUBLIC **

SOURCE	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	YEAR
LIQUID EFFLUENTS	8.44E-2 mrem Adult Whole Body	1.45E-1 mrem Adult Whole Body	1.89E-1 mrem Adult Whole Body	2.55E-1 mrem Adult Whole Body	SEE ANNUAL REMP REPORT
AIRBORNE EFFLUENTS Iodines/Particulates	4.15E-4 mrem Adult Skin	8.80E-3 Child Bone	8.6E-5 Child Bone	1.99E-4 mrem Child Bone	SEE ANNUAL REMP REPORT
Noble Gases	N/A	N/A	5.66E-6 mrad (BETA)	1.01E-4 mrad (BETA)	

**See TMI-1 Semi-Annual Reports for 1983

Based on meteorology data provided in the TMI Unit I 1983 Semi-Annual Reports, as required by Reg. Guide 1.21.

TABLE I