

February 20, 2008  
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U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

THREE MILE ISLAND UNIT 1 (TMI-1)  
OPERATING LICENSE NO. DPR-50  
DOCKET NO. 50-289

SUBJECT: 2007 ANNUAL REPORT

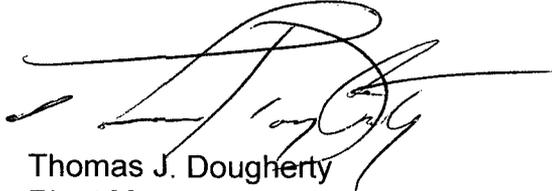
Attached is the 2007 Annual Report for TMI-1 and TMI-2. This report is being submitted in accordance with TMI-1 Technical Specifications Sections 6.9.1.B.2 through 6.9.1.B.5 and 6.17. The attachments to this letter contain the following information:

- Attachment 1 - Aircraft movement data from the Harrisburg International Airport (per TMI-1 T.S. section 6.9.1.B.2).
- Attachment 2 - Leak reduction program test information (per TMI-1 T.S. 6.9.1.B.3).
- Attachment 3 - Pressurizer power operated relief valve and pressurizer safety valve challenges (per TMI-1 T.S. section 6.9.1.B.4).
- Attachment 4 - Results of specific activity analysis - primary coolant system (per TMI-1 T.S. section 6.9.1.B.5).

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Attachment 5 - Major changes to radioactive waste treatment systems (per  
TMI-1 T.S. section 6.17)

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Dougherty', with a large, sweeping flourish extending to the right.

Thomas J. Dougherty  
Plant Manager

TJD/awm

Attachments

cc: TMI-1 Senior Resident Inspector  
Administrator, Region I  
TMI-1 Project Manager  
File 08009

ATTACHMENT 1

AIRCRAFT MOVEMENTS AT  
THE HARRISBURG INTERNATIONAL AIRPORT (HIA)  
JANUARY 1, 2007 THROUGH DECEMBER 31, 2007

1. Total Aircraft Movements – 71,011.
2. Estimated total number of movements of aircraft larger than 200,000 pounds – 1232.

This estimate is composed of two parts, 1190 movements of civilian aircraft, and 42 movements of military aircraft.

ATTACHMENT 2

TECHNICAL SPECIFICATION 6.9.1.B.3  
PERIODIC LEAK REDUCTION PROGRAM TEST RESULTS

The results of the TMI-1 2007 periodic Leak Reduction Program Tests, which included visual inspections, are summarized in Table 1. These tests were performed in accordance with the referenced procedures. (See Note 1 for procedure titles.)

TABLE 1  
2007 LEAK REDUCTION PROGRAM TEST RESULTS FOR TMI-1

SURVEILLANCE PROCEDURES	DATE OF PERFORMANCE	LEAKING COMPONENT I.D.	LEAK RATE	LEAK RATE	RESULTING MAINTENANCE UNDERTAKEN
			AS-FOUND	AS-LEFT	
OP-TM-823-251	10-03-07	AH-V1A/B	2093 sccm	2093 sccm	None
	11-15-07	AH-V1A/B	1363	1363	
OP-TM-823-252	10-09-07	AH-V1C/D	2093 sccm	2093 sccm	None
	10-15-07	AH-V1C/D	8287 sccm	8287	
(LLRT performed under Option B provisions, 1303-11.18 series procedures)	10-12-07	Eq. Hatch Flg	24	24	None
	10-23-07	CA-V-189/443	963	963	None
		NI-V-26	63	63	None
	10-24-07	NI-V-27	63	63	None
		Pen. 221	23	23	None
	10-25-07	Pen. 222	23	23	None
		HP-V-1	168	168	None
	10-26-07	HP-V-6	61	61	None
		HM-V-3A	61	61	None
		HM-V-3B	61	61	None
		HM-V-4A	61	61	None
		HM-V-4B	61	61	None
		IA-V-6/20	22	22	None
		HM-V-1A	22	22	None
		HM-V-1B	22	22	None
		HM-V-2A	22	22	None
		HM-V-2B	22	22	None
10-26-07	Pen. 417	22	22	None	
10-26-07	WDG-V-3/4	1160	1160	Retest	
	IC-V-6	63	63	None	
	IC-V-16	63	63	None	
	NS-V-11	1079	1079	None	
	NS-V-15	273	273	None	

(LLRT performed under Option B provisions, 1303-11.18 series procedures - continued)	10-27-07	CF-V-2B	63	63	None
		CF-V-20B	571	571	None
		CF-V-46B	77	77	None
	10-30-07	WDG-V-3/4	980	980	WDG-V-3 replacement scheduled
		CA-V-4A	63	63	None
		CA-V-5A	63	63	None
		CA-V-449	23	23	None
	11-01-07	CA-V-2/446	63	63	None
		CA-V-13	63	63	None
	11-03-07	MU-V-20	174	174	None
		MU-V-116	88	88	None
		MU-V-3/238	77	77	None
	11-04-07	DH-V-64	77	77	None
		DH-V-69	88	88	None
		WDL-V-534/535	96	96	None
		CF-V-12A	151	151	None
		CF-V-19A	1070	1070	None
	11-05-07	WDL-V-303	616	616	None
		WDL-V-304/727	63	63	None
	11-07-07	CF-V-2A	64	64	None
		CF-V-20A/46A	209	209	None
		IC-V-4	63	63	None
		IC-V-18	63	63	None
	11-10-07	NS-V-35	991	991	None
		NS-V-4/211	991	991	None
		IC-V-2	736	736	None
		IC-V-3	255	255	None
	IC-V-102	77	77	None	
11-11-07	CF-V-2B	127	127	None	
	CF-V-20B/46B	63	63	None	
	CF-V-12B	63	63	None	
11-12-07	Pen. 106	23	23	None	
11-13-07	Pen. 211	23	23	None	
	Pen. 104	23	23	None	
	Pen. 210	23	23	None	
	SF-V-22	107	107	None	
	SF-V-23	16	16	None	
	MU-V-25	63	63	None	

		MU-V-26	63	63	None
	11-14-07	FTT West	63	63	None
		FTT East	63	63	None
		Pen. 105	23	23	None
	11-15-07	Pen. 414	23	23	None
		Eq. Hatch			
		Flange	23	23	None
		FS-V-401	0	0	None
		HR-V-22A/B	63	63	None
		HR-V-2A/B	63	63	None
			MINPATH AS- FOUND = 8,460 SCCM MAXPATH AS- FOUND = 21,531 SCCM	MINPATH AS-LEFT = 10,088 SCCM MAXPATH AS-LEFT = 22,106 SCCM	
OP-TM-214-254	07-19-07	None		0 GPH	None required
OP-TM-214-253	08-10-07	None		0 GPH	None required
1303-11.30	08-27-07	None		0 ml / min	None required
OP-TM-211-251 (7.2)	09-03-07	None		N/A	None required
OP-TM-211-251 (7.3)	09-06-07	None		N/A	None required
OP-TM-211-251 (7.1)	09-17-07	MU-V-16A packing, MU- V-6A packing, MU-V-90 packing, MU12-FT flange		N/A	Tightened packing glands, replaced MU12- FT gasket and torqued bolts
OP-TM-211-251	10-22-07	None		N/A	None required
OP-TM-212-215	10-24-07	DH-V-12B leakoff plug, BS-V-3B packing, DH- V-15B packing, DH- P-1B mechanical seal		0 GPH	Tightened plug, cleaned boron, tightened packing glands, minor seal leakage
OP-TM-212-217	11-04-07	DH-V-6A packing		0 GPH	Tightened packing gland
OP-TM-212-218	11-05-07	None		0 GPH	None required

OP-TM-211-261	11-12-07	MU-V-69B body-to- bonnet gasket		0.0313 gal/min	Not an active leak, cleaned
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Note 1: OP-TM-823-251, "LLRT of Purge Exhaust Penetration Valves"  
OP-TM-823-252, "LLRT of Purge Supply Penetration Valves"  
OP-TM-214-254, "BS Leakage Exam Train B"  
OP-TM-214-253, "BS Leakage Exam Train A"  
1303-11.30, "Reactor Coolant Sampling Leakage Check"  
OP-TM-211-251, "Leakage Exam of Make-up System"  
OP-TM-212-215, "DHR Train A/B Leakage Exam"  
OP-TM-212-217, "DH-V-6A to RB Sump Leak Check"  
OP-TM-212-218, "DH-V-6B to RB Sump Leak Check"  
OP-TM-211-261, "MUP Suction Leak Check"

ATTACHMENT 3

PRESSURIZER POWER OPERATED RELIEF VALVE AND PRESSURIZER SAFETY  
VALVE CHALLENGES IN 2007

There were no challenges to the pressurizer power operated relief valve (PORV) or either of the two pressurizer (PZR) safety valves during the entire calendar year of 2007.

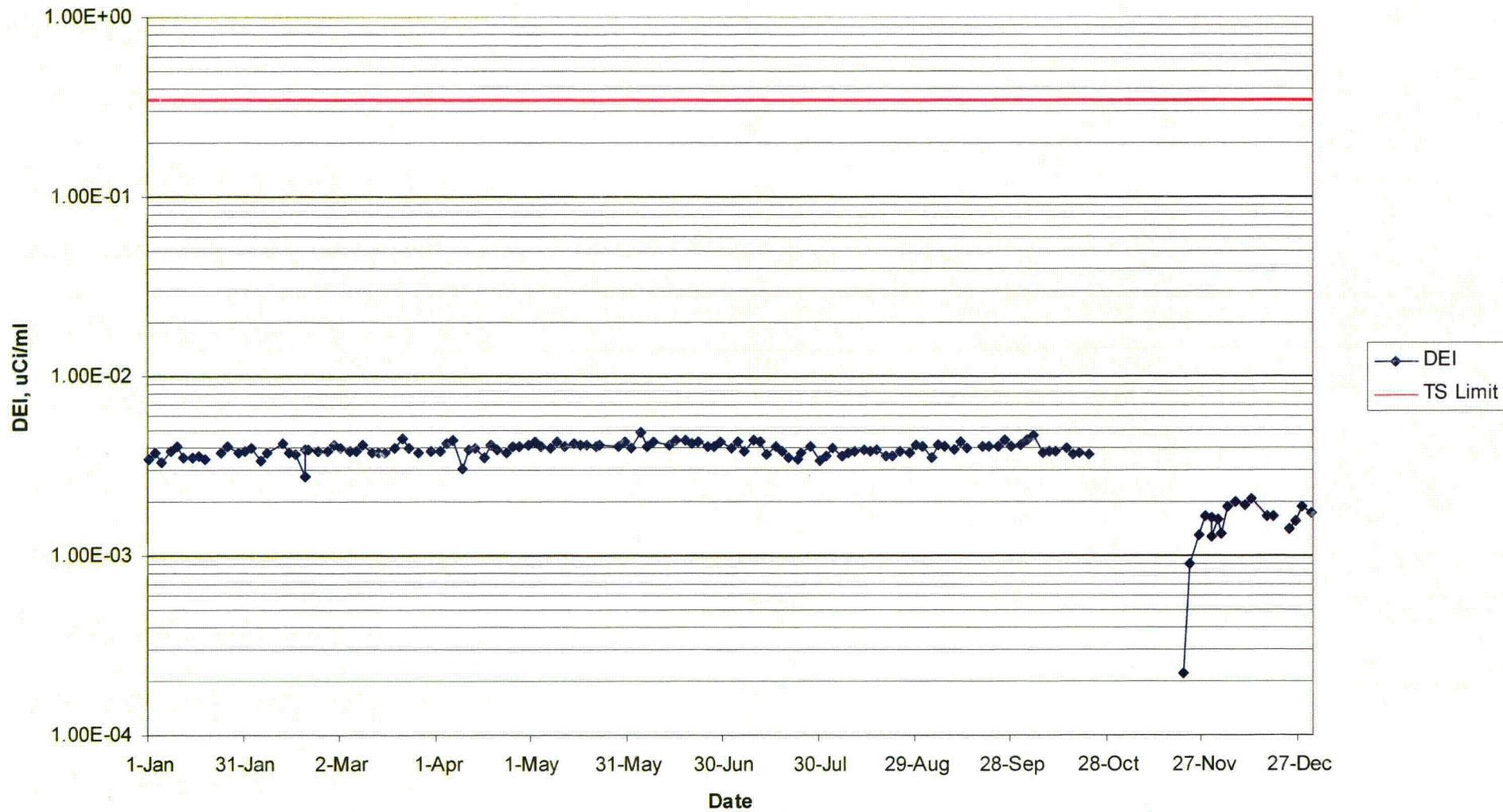
A review of the Reactor Coolant System (RCS) pressure indication trend data resulted in a maximum pressure indication of 2177 psig during the calendar year of 2007. The maximum indicated operating pressure of 2177 psig is well below the PORV set point of 2450 psig, and both PZR safety valve set points of 2500 psig. Therefore no challenges to the PORV or PZR safety valves occurred during 2007.

ATTACHMENT 4

RESULTS OF SPECIFIC ACTIVITY ANALYSIS-  
PRIMARY COOLANT SYSTEM

Technical Specification 6.9.1.B.5 requires annual reporting of certain information regarding the results of specific activity analyses in which the primary coolant exceeded the limits of Technical Specification (TS) 3.1.4.1. The limits of TS 3.1.4.1 were not exceeded at TMI-1 at any time during the year 2007. The figure of RCS activity for 2007 shows that the limit of 0.35 microcurie/gram dose equivalent I-131 was not exceeded in 2007.

### TMI-1 Dose Equivalent Iodine (DEI) in 2007



ATTACHMENT 5

MAJOR CHANGES TO RAD WASTE TREATMENT SYSTEMS

Technical Specification Section 6.17 requires reporting of "Major Changes to Radioactive Waste Treatment Systems." Major changes are interpreted to mean changes that would alter how the system functions or changes that would affect operational exposures, offsite dose rates or integrated doses. There were no major changes to the liquid, gaseous, or solid radioactive waste treatment systems at TMI-1 during the year of 2007.