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November 16, 1992  
C311-92-2151

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Dear Sir:

Subject: Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating license No. DPR-50  
Docket No. 50-289  
LER 92-003-00

This letter transmits Licensee Event Report (LER) 92-003-00 concerning an inoperable Reactor Building Air Sampling Monitor. Public health and safety were not affected.

This LER is submitted pursuant to 10 CFR 50.73. Attached is an abstract which provides a brief description of the event. For a complete understanding of the event, refer to the full text of the report provided on Form 366A.

Sincerely,

T. G. Broughton  
Vice President and Director, TMI-1

AWM/mkk

Attachment

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

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## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) THREE MILE ISLAND, UNIT 1										DOCKET NUMBER (2) 0 5 0 0 0 2 8 9 1 OF 0 4										PAGE (3) 1 OF 0 4									
TITLE (4) REACTOR BUILDING ATMOSPHERIC RADIATION MONITOR INOPERABLE DUE TO PERSONNEL ERROR WHICH CAUSED IMPROPER VALVE LINEUP																													
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																				
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES					DOCKET NUMBER(S)															
10	19	92	92	003	00	11	16	92						0 5 0 0 0															
OPERATING MODE (9) Y			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																										
POWER LEVEL (10) 100			20.402(b)					20.406(a)					50.73(a)(2)(iv)					73.71(b)											
			20.406(a)(1)(i)					50.36(a)(1)					50.73(a)(2)(iv)					73.71(c)											
			20.406(a)(1)(ii)					50.36(a)(2)					50.73(a)(2)(vi)					OTHER (Specify in Abstract below and in Text, NRC Form 355A)											
			20.406(a)(1)(iii)					X 50.73(a)(2)(i)					50.73(a)(2)(vii)(A)																
			20.406(a)(1)(iv)					50.73(a)(2)(ii)					50.73(a)(2)(vii)(B)																
			20.406(a)(1)(v)					50.73(a)(2)(iii)					50.73(a)(2)(viii)																
			20.406(a)(1)(vi)					50.73(a)(2)(iv)					50.73(a)(2)(ix)																
LICENSEE CONTACT FOR THIS LER (12)																													
NAME ADAM W. MILLER, TMI-1 LICENSING ENGINEER										TELEPHONE NUMBER 7 1 7 9 4 8 1 - 8 1 2 8																			
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																													
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC																			
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)					MONTH DAY YEAR														
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO																			

ABSTRACT (Limit to 1400 spaces - i.e., approximately fifteen single-space typewritten lines) (16)

On October 19, 1992, TMI-1 was operating at 100% power. From 0949 hours to 2152 hours on that date, RM-A2 (the reactor coolant leak detection system sensitive to radioactivity) was inoperable due to improper valve lineup subsequent to completion of Quarterly Surveillance. Since it was not known that RM-A2 was inoperable, samples of the Reactor Building atmosphere were not taken and analyzed each 8 hours as required by Technical Specification 3.1.6.8.

The root cause was personnel error by the I&C Technician in failing to fully implement the surveillance procedure. The I&C Technician has been counseled on the need and importance of completing all procedural steps as required. Additionally, Radiation Monitoring System procedures have been reviewed and will be revised to include independent valve verification where appropriate.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED DMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
THREE MILE ISLAND, UNIT 1	0500028992	003	00	02	OF 04	

TEXT (If more space is required, use additional NRC Form 306A's) (17)

REACTOR BUILDING ATMOSPHERIC RADIATION MONITOR INOPERABLE  
DUE TO PERSONNEL ERROR WHICH CAUSED IMPROPER VALVE LINEUP

I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

The plant was operating at 100% reactor power. There were no abnormal conditions or equipment line ups.

II. STATUS OF STRUCTURES, COMPONENTS OR SYSTEMS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT.

No structures, components or systems were out of service that contributed to this event.

III. EVENT DESCRIPTION

At 0835 on October 19, 1992 a Reactor Building sample was taken in preparation for removing RM-A2 [IL/RI] from service to perform the required Tech. Spec. quarterly calibration of the iodine channel (RM-A2I). RM-A2 was removed from service at 0949 and an I&C Technician began the calibration per procedure 1302-3.1.

In order to reduce background radiation readings, the technician had the Control Room Operator close the sample inlet isolation valve, CM-V4, and opened the purge valve, V-9 (Ref. attached Fig. 1). After a two minute purge, the sample outlet valve, CM-V2, was closed and the sample pump turned off. At this time the technician was required by procedure to CLOSE valve V-9, which he failed to accomplish. The technician completed the calibration and RM-A2 was returned to service at 13:25.

At 2110 the Shift Technical Advisor (STA) noted that RM-A2 particulate and gas channels were reading lower than expected. RM-A2 was declared out of service and a Reactor Building sample was requested. At 2125, valve V-9 was found OPEN by the Chemistry Technician obtaining the Reactor Building sample. Valve V-9 in the open position had allowed dilution of the Reactor Building air sample with Intermediate Building air. Valve V-9 was closed at this time. At 2146 the Chemistry Technician completed obtaining the Reactor Building sample. At 2152 RM-A2 was returned to service and verified operable.

Review of recorder traces and computer data graphs revealed that RM-A2 particulate channel indicated approximately one-fifth of the level indicated before RM-A2 was removed from service for the calibration. The gas channel levels were reduced to approximately one-half of the level indicated prior to removal of RM-A2 from service. These indications support the conclusion that the I&C Technician did not close valve V-9 when required by procedure (1302-3.1).

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
THREE MILE ISLAND, UNIT 1	0500028992	003	00	03	OF	04	

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Review of the work package shows that the technician initialed having satisfactorily completed the step which refers to another section of the procedure to purge the unit. However, the technician did not initial satisfactory completion of the procedure purge steps, as required. Additionally, the pages that contained the purge steps were not included in the completed work package.

Tech. Spec. 3.1.6.8 requires collection of a Reactor Building atmosphere sample every eight hours when RM-A2 is inoperable. RM-A2 was inoperable for nearly twelve hours, from 09:49 until 21:52.

This event is due to personnel error as the procedure was not followed.

IV. COMPONENT FAILURE DATA

Not applicable. No components failed for this event.

V. AUTOMATIC OR MANUAL INITIATED SAFETY SYSTEM RESPONSES

None.

VI. ASSESSMENT OF THE SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

There were no adverse safety consequences. Two persons made a Reactor Building entry from 11:15 until 11:40 but this was less than two hours after RM-A2 was removed from service and within eight hours of the last Reactor Building sample. No increase in leakage into the Reactor Building was evidenced by Reactor Building sump levels or Reactor Building cooling coil excess condensate flow alarms. Also, no Reactor Building purges were performed during the approximately twelve hour period that RM-A2 was inoperable. Finally, no increase in Reactor Building area monitor radiation levels occurred during the period that RM-A2 was inoperable.

VII. PREVIOUS EVENTS OF A SIMILAR NATURE

LER 83-038 - RM-A9 Valved Out

LER 82-009 - RM-A9 Valved Out

The root cause of these LERs was Radiological Controls personnel error in not following the sampling procedure.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 2750-0104

EXPIRES 6/31/86

FACILITY NAME (1)  THREE MILE ISLAND, UNIT 1	DOCKET NUMBER (2)  0 5 0 0 0 2 8 9 9 2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		0	0 0 3	0 0	0 4	OF 0 4

TEXT (If more space is required, use additional NRC Form 366A, s) (17)

VIII. CORRECTIVE ACTIONS PLANNED

The I&C Technician has been verbally counseled on the need and importance of completing all procedure steps and initialling satisfactory completion of steps when required. It is not deemed necessary to counsel other I&C Technicians because a review of completed RM-A2 iodine and gas channel work packages performed by other technicians since January, 1991 shows 100% compliance with the procedural requirements.

Part of the corrective action for LER 82-009 was to include independent verification of proper valve realignment in RM-A8 and RM-A9 sample procedures. As an administrative measure to prevent recurrence, all Radiation Monitoring System procedures that realign valves have been reviewed and a requirement for independent verification of proper valve realignment will be added as appropriate.

\* The Energy Industry Identification System (EIIS), System Identification (SI) and Component Function Identification (CFI) Codes are included in brackets, "[SI/CFI]", where applicable, as required by 10 CFR 50.73(b)(2)(ii)(F).



**Figure 1****RM-A-2 Valve Lineup**

NOTE: All valves shown in normal position for operation.

POSITION 1: A to B  
C to DPOSITION 2: A to D  
B to C

VALVE HANDLE ORIENTATION		
VALVE	POSITION #1	POSITION #2
V1	HORIZ	VERT
V2	VERT	HORIZ
V3	VERT	HORIZ
V4	HORIZ	VERT
CM-V5	VERT	HORIZ
CM-V6	VERT	HORIZ
V5	FULL OPEN	
V6	THROTTLED (Screw driver adjustable)	
V7	CLOSED	
V8	CLOSED	
V9	CLOSED	
V10	CLOSED	

