

327

NRC Form 366 (9-83)

LICENSEE EVENT REPORT (LER)

B&W

U.S. NUCLEAR REGULATORY COMMISSION  
APPROVED OMB NO. 3150-0104  
EXPIRES: 8/31/85  
FEB 06 1985

192799

FACILITY NAME (1) Three Mile Island Unit 2 DOCKET NUMBER (2) 050003210 PAGE (3) 1 OF 4

TITLE (4) Inoperability of the Air Intake Tunnel Chlorine Monitor inoperable

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)												
1	1	29	8	4	8	4	0	2	2	0	0	1	2	2	7	8	4	0	5	0	0	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

OPERATING MODE (9) N	20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 01010	20.406(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.406(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: Russell D. Wells, TMI-2 Licensing Engineer

TELEPHONE NUMBER: 717 918 1-81244

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUF. TURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUF. TURER	REPORTABLE TO NPROS
A		MION		N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

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

At 2150 hours on November 29, 1984, an Instrument and Control (I&C) Technician observed that one of the two electrolyte sensing element leads for the Air Intake Tunnel (AIT) Chlorine Monitor had been disconnected. The disconnected lead causes the monitor to be out-of-service since it cannot detect the presence of chlorine in the AIT. The monitor's condition, therefore, initiated the Action Statement of Technical Specification 3.3.3.7 which requires, within one hour, the operation of the Control Room Ventilation System, in the recirculation mode. However, the out-of-service condition of the monitor prevented the automatic operation of this system. Due to this reason and the AIT Chlorine Monitor being out-of-service longer than one hour, the Action Statement requirement of Tech Spec 3.3.3.7 was not met. Therefore, this event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B). After the sensing element lead was reconnected, the AIT Chlorine Monitor was calibrated and returned to service. Long-term corrective actions have been identified.

51385

8501080419 841227  
PDR ADOCK 05000320  
S PDR

IE23

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Three Mile Island Unit 2	DOCKET NUMBER (2)  0   5   0   0   0   3   2   0	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8   4	-   0   2   2	-   0   0	0   2	OF 0   4

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

I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

The TMI-2 facility is in a long-term cold shutdown state. The reactor decay heat is being removed via loss to ambient. Throughout this event there was no effect on the Reactor Coolant System or the core.

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

N/A

III. EVENT DESCRIPTION

At 2150 hours on November 29, 1984, an I&C Technician observed that one of the two electrolyte sensing element leads for the AIT Chlorine Monitor (no applicable IEEE Code) had been disconnected. This monitor is located on the 280' elevation of the Control Building. The disconnected lead rendered the monitor out-of-service since the monitor would have been unable to detect the presence of chlorine in the AIT. Therefore, the recirculation mode of the Control Room Emergency Ventilation would not have operated automatically.

The technician immediately reconnected the sensing element lead and notified the Control Room. The technician also observed that the AIT Chlorine Monitor's "Instrument Fault" alarm had not actuated. This alarm should have actuated when the signal lead was disconnected. The technician noticed, however, that the "zero setpoint adjustment" potentiometer for this alarm had been improperly set. Increasing this potentiometer will defeat the Instrument Fault Alarm.

With the AIT Chlorine Monitor out-of-service, the Control Room initiated the Action Statement of Technical Specification 3.3.3.7. This Action Statement requires, within one hour, the operation of the Control Room Emergency Ventilation System in the recirculation mode. The Control Room immediately performed this requirement by manual operation.

An evaluation of this event by Operations personnel revealed that the AIT Chlorine Monitor was last surveilled, per Surveillance Procedure 4303-M10, on November 19, 1984. This procedure verifies the actuation of the Instrument Fault Alarm when one of the sensing element leads is disconnected. This part of the procedure was initialed as having been performed satisfactorily.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Three Mile Island Unit 2	DOCKET NUMBER (2)  05000320	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		84	-022	-00	03	OF 04

TEXT (if more space is required, use additional NRC Form 365A's) (17)

Between November 19, 1984, and November 29, 1984 (the date of this event), there was no maintenance or trouble calls performed on the AIT Chlorine Monitor. Since Operations personnel could not determine how long the AIT Chlorine Monitor was out-of-service, the facility, therefore, was in non-compliance with the Action Statement of Technical Specification 3.3.3.7.

This event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) due to a condition prohibited by the plant's Technical Specifications.

IV. ROOT CAUSE OF THE EVENT

The root cause of this event was personnel error. This is based on the disconnection of the sensing element lead and the improper "zero setpoint adjustment" setting on the potentiometer. The AIT Chlorine Monitor is not subject to vibratory motion, therefore, external factors did not contribute to the cause of this event.

V. CORRECTIVE ACTIONS PLANNED

Short-Term The AIT Chlorine Monitor was calibrated and returned to service at 1115 hours on November 30, 1984. This event has been discussed with Operations personnel.

Long-Term Site Operations is evaluating the feasibility of installing, in the Control Room, an annunciator for the AIT Chlorine Monitor Instrument Fault Alarm. This corrective action is intended to ensure proper operator response. Additionally, a placard will be installed by the "zero setpoint adjustment" potentiometer of the AIT Chlorine Monitor and similar monitors, as deemed appropriate. This placard will advise personnel not to adjust the potentiometer without prior approval of the Control Room.

VI. COMPONENT FAILURE DATA

Air Intake Tunnel Chlorine Monitor - AH-CIS-5484  
Manufacturer: Fischer and Porter  
Model No.: 17E1100

VII. AUTOMATIC OR MANUALLY INITIATED SAFETY SYSTEM RESPONSES

N/A

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Three Mile Island Unit 2	DOCKET NUMBER (2)  05000321084	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		84	022	010	04	OF 04

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

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

The out-of-service condition of the AIT Chlorine Monitor would have prevented the automatic recirculation of the Control Room Emergency Ventilation System in the event of a significant release of chlorine gas. However, the Control Room Air Supply Duct Chlorine Monitor would have alerted personnel if such an event had occurred. Control Room personnel would have then been able to manually initiate the recirculation mode of the Control Room Emergency Ventilation System.



**GPU Nuclear Corporation**  
Post Office Box 480  
Route 441 South  
Middletown, Pennsylvania 17057-0191  
717 944-7621  
TELEX 84-2386  
Writer's Direct Dial Number:

(717) 948-8461

4410-84-L-0228  
Document ID 0145A

December 27, 1984

US Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
Operating License No. DPR-73  
Docket No. 50-320  
Licensee Event Report 84-022

Attached is Licensee Event Report 84-022 concerning the out-of-service condition of the Air Intake Tunnel (AIT) Chlorine Monitor. This event was discovered on November 29, 1984.

This event is considered reportable pursuant to Title 10 of the Code of Federal Regulations, Section 50.73(a)(2)(i)(B).

Sincerely,

F. R. Standerfer  
Vice President/Director, TMI-2

FRS/RDW/jep

Attachments

cc: Regional Administrator - Office of I & E, Dr. T. E. Murley  
Program Director - TMI Program Office, Dr. B. J. Snyder  
Deputy Program Director - TMI Program Office, Dr. W. D. Travers

IE23  
1/1