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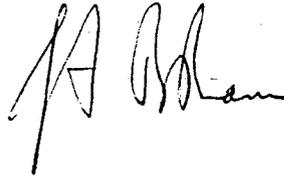
September 18, 1991

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 91-17-00

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

The attached Licensee Event Report LER 91-17-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,



Attachment

cc: Mr. Thomas T. Martin
Regional Administrator - Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7	PAGE (3) 1 OF 0 3
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TITLE (4)
Inadvertent Actuation of Toxic Gas Monitors (ESF)

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	
0	8	1 9 9 1	9 1	0 1 7	0 0	0 9	1 8	9 1	DOCKET NUMBER(S) 0 5 0 0 0	

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)				
POWER LEVEL (10) 0 1 0 0	<input type="checkbox"/> 20.402(b)	<input checked="" type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)	
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)		
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME Richard Louie, Engineer	TELEPHONE NUMBER
	AREA CODE 9 1 4 5 2 6 - 5 6 7 8

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	V I M O N I	W 2 4 1 0		N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On August 19, 1991, at approximately 0605 hours, with reactor power at 0%, the Hydrogen Cyanide (HCN) toxic gas monitor channel 2 alarmed inadvertently, resulting in the transfer of the Central Control Room (CCR) Ventilation System from the normal mode to the incident mode. Subsequent actuations of the hydrogen cyanide, chlorine and ammonia toxic gas monitor channels occurred on August 24, 28, 30, 31, September 6 and 10.

As designed, the detection of the respective gas by either Channels 1 or 2 of the toxic gas monitors will generate an alarm in the CCR and isolate the CCR Ventilation System. The Toxic Gas Monitoring System is classified as an Engineered Safety Feature (ESF). No Technical Specification or NRC limits were exceeded.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20565, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7 9 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 1	- 0 1 7	- 0 0	0 2	OF	0 3

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

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Inadvertent actuation of the Hydrogen Cyanide (HCN) toxic gas monitoring channels, initiating operation of an Engineered Safety Feature (ESF).

EVENT DATE:

August 19, 24, 28, 30, 31, September 6 and 10, 1991

REPORT DUE DATE:

September 18, 1991

REFERENCES:

Significant Event Report (SOR) 91-395, 91-407, 91-417, 91-425, 91-429, 91-440, 91-452

PAST SIMILAR OCCURRENCE:

Licensee Event Report (LER) 90-07-00, 90-09-00, 90-15-00, 90-17-00, 91-03-00, 91-12-00, 91-11-00, 91-14-00, 91-15-00, 91-16-00

DESCRIPTION OF OCCURRENCE:

On August 19, 1991, at about 0605 hours, with reactor power at 0%, the Central Control Room (CCR) ventilation system was automatically aligned from the normal mode to the incident mode and an ESF was actuated. The cause of ESF actuation was due to an alarm generated by the HCN toxic gas monitor system. On August 24, 28, 30, 31, September 6 and 10, the CCR ventilation system was automatically aligned to the incident mode due to alarms generated by either chorine, hydrogen cyanide and ammonia toxic gas monitors.

Immediate investigation determined that the cause of the inadvertent actuations of the toxic gas monitor channels 1 and 2 in all occurrences was due to either monitor malfunction or tears in the paper tape which senses the respective gas being monitored. Electrical faults within the monitor unit and rips or tears in the paper tape cause a fiber optic monitor in the toxic gas monitor to generate a false alarm. In most cases, the monitor unit or the paper was replaced, the alarm reset, and the ventilation system returned to normal mode.

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		9 1	- 0 1 7	- 0 0	0 3	OF	0 3

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

ANALYSIS OF OCCURRENCE:

This report is being made since actuation of an ESF occurred. Any manual or automatic actuation of an ESF is reportable under 50.73(a)(2)(IV). There were no safety implications, and all safety systems performed in accordance with design.

CAUSE OF OCCURRENCE:

The hydrogen cyanide, chlorine and ammonia toxic gas monitors have inlet and outlet air sample pumps which draw air across a moving tape. When the respective gas is detected the tape changes color. The tape is continuously monitored by a fiber optic sensor which generates an alarm in the CCR when the initiating color is achieved. Rips or tears in the paper tape cause the fiber optic monitor to generate a false alarm. The cause of all occurrences was due to either an electrical fault within the monitor unit or to a tear in the paper tape.

CORRECTIVE ACTION:

- 1) The immediate corrective action taken was the replacement of the paper tape cassette.
- 2) Near-term corrective action will be the replacement of the current electro-mechanical type monitors with electro-chemical type monitors. Technical reviews, to be followed by equipment procurement, are currently underway. Electro-chemical type monitors appear to offer greater reliability and require less maintenance to ensure operability. Long-term corrective action will be the elimination of the Technical Specifications requirement to monitor HCN.