



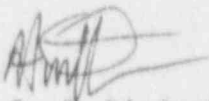
Commonwealth Edison
LaSalle County Nuclear Station
2601 N. 21st. Rd.
Marseilles, Illinois 61341
Telephone 815/357-6761

September 08, 1992

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Dear Sir:

Licensee Event Report #92-011-00, Docket #050-374 is being submitted to your office in accordance with 10CFR 50.73 (A)(2)(iv).


G. J. Diederich
for Station Manager
LaSalle County Station

GJD/LS/mkl

Enclosure

xc: Nuclear Licensing Administrator
NRC Resident Inspector
NRC Region III Administrator
INPO - Records Center
EDNS Resident Inspector

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PDR ADDCK 05000374
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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) LaSalle County Station Unit 2 Docket Number (2) 0150003714 Page (3) 1 of 03
 Title (4) Spurious Auto Start Of Control Room Ventilation Emergency Makeup Train Due To High Radiation Spike

Event Date (5) 080992 LER Number (6) 0111 Report Date (7) 090692 Other Facilities Involved (8)
 Month Day Year Year Sequential Revision Facility Names Docket Number(s)
 Number Number
080992 0111 090692 0150003714

OPERATING MODE (9) 1 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR
 (Check one or more of the following) (11)
 POWER LEVEL (10) 09
☐ 20.402(b) ☐ 20.405(c) ☒ 50.73(a)(2)(iv) ☐ 73.71(b)
☐ 20.405(a)(1)(i) ☐ 50.36(c)(1) ☐ 50.73(a)(2)(v) ☐ 73.71(c)
☐ 20.405(a)(1)(ii) ☐ 50.36(c)(2) ☐ 50.73(a)(2)(vii) ☐ Other (Specify
☐ 20.405(a)(1)(iii) ☐ 50.73(a)(2)(i) ☐ 50.73(a)(2)(viii)(A) in Abstract
☐ 20.405(a)(1)(iv) ☐ 50.73(a)(2)(ii) ☐ 50.73(a)(2)(viii)(B) below and in
☐ 20.405(a)(1)(v) ☐ 50.73(a)(2)(iii) ☐ 50.73(a)(2)(x) Text

LICENSEE CONTACT FOR THIS LER (12)

Name Leon Sanders, Technical Staff Engineer, Extension 2701 TELEPHONE NUMBER
 AREA CODE 815 357 -6761

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	I	L		No					

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) X YES NO
 Yes (If yes, complete EXPECTED SUBMISSION DATE) X NO

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

On August 9, 1992 at approximately 1825 hours, Unit 1 and Unit 2 were in Operational Condition 1 (Run) at 90 and 99 percent power respectively. At that time a high radiation spike was received on the 2D18-K751A Process Radiation Monitor (PR) [IL]. This high radiation spike caused the 'B' Control Room Ventilation (VC) [VI] Emergency Make-Up Train (EMU) to auto-start. Upon investigation and verification that the high radiation signal was false, the high radiation signal was cleared and the Emergency Make-up Train was shutdown.

The apparent cause of the initiation of the VC Emergency Make-up Train was due to the high radiation spurious spike from the "A" Radiation Detector. The cause of the spurious spike is unknown, but the problem is under investigation by the Instrument Maintenance Department and the Technical Staff. Action Item Records, #373-180-91-07301, 374-180-92-05801, and 373-180-92-03601 are tracking the cause and corrective actions.

The safety consequences of this event were minimal because the VC Emergency Make-up Train did initiate when the spurious high radiation spike occurred. That is the correct action for this system.

The Instrument Maintenance Department will replace the Geiger-Muller Tubes and the Amphenol connectors on the VC system.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION														Form Rev 2.0	
FACILITY NAME (1)				DOCKET NUMBER (2)				LER NUMBER (6)						Page (3)	
								Year		Sequential Number		Revision Number			
LaSalle County Station Unit 2				0 5 0 0 0 3 7 4				9 2		- 0 1 1		- 0 0		0 2 OF 0 3	
TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]															

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2 Event Date: 08/09/92 Event Time: 1826 Hours

Reactor Mode(s): 1/1 Mode(s) Name: Run Power Level(s): 90%/99%

B. DESCRIPTION OF EVENT

On August 9, 1992 at approximately 1826 hours, Units 1 and 2 were in Operational Condition 1 (Run) at 90 and 99 percent power respectively. At that time a high radiation spike was received on the 2D18-K751A Process Radiation Monitor (PR) [IL]. This high radiation spike caused the Control Room Ventilation (VC) [VI] 'B' Emergency Make-Up (EMU) Train to auto-start. Upon investigation and verification that the high radiation indication was false, the high radiation signal was cleared and the Emergency Make-Up Train was shutdown and taken to Pull-To-Lock. A seven day timeclock was entered in accordance with Technical Specification 3.7.2. After observing no further spikes from the 'A' radiation detector, the "B" EMU Train was declared operable August 10, 1992 at 0945 hours and the time clock was exited. On August 18, 1992 the "B" VC Emergency Make-Up Train was taken out-of-service for work to begin on the radiation monitors.

This is reportable pursuant to 10CFR50.73(a)(2)(iv) due to the automatic initiation of an Engineered Safety Feature (ESF).

C. APPARENT CAUSE OF EVENT

The apparent cause of the initiation of the Control Room Ventilation Emergency Make-Up Train was due to a spurious high radiation spike from the "A" Radiation Detector. The cause of the spurious spike is unknown, but the problem is under investigation by the Instrument Maintenance Department and the Technical Staff. Presently there are Action Item Records, #373-180-91-07301, 374-180-92-05801, and 373-180-92-03601, which are tracking the cause and corrective actions.

D. SAFETY ANALYSIS OF EVENT

The safety consequences of this event were minimal because the Control Room Ventilation Emergency Make-Up Train did initiate when the spurious signal for a high radiation occurred. That is the correct response for this system. The train was shutdown when it was determined that no high radiation condition existed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION												Form Rev 2.0	
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)						Page (3)					
		Year	Sequential Number	Revision Number									
LaSalle County Station Unit 2	0 5 0 0 0 3 7 4	9 2	- 0 1 1	- 0 0				0 3	OF	0 3			
TEXT Energy Industry Identification System (EIIIS) codes are identified in the text as [XX]													

E. CORRECTIVE ACTIONS

Many solutions were attempted to try to correct the high radiation spikes which occurred previous to this event. All of the detectors were taken apart, cleaned and inspected. The connections and housing were cleaned, inspected and put back together. Chart recorders were connected to the detector signals and observed for spike signals. The calibration procedures, LIS-AR-105A, B, C, D "Unit 1/2 Main Control Room Radiation Monitor Channel A, B, C, D Refuel Calibration", were reviewed and they were found to be calculating the background Radiation incorrectly. The background calculation was too conservative, and this caused the detector to be too sensitive. The procedures were revised and the detectors were recalibrated. After all of this work was done, the high radiation spikes continued.

The Instrument Maintenance Department will replace the Geiger-Muller (GM) Tubes and the Amphenol connectors on both EMU trains. The manufacturers representative from Sorrento Electronics recommended replacing the Geiger-Muller Tubes because as they get older they can cause spikes. AIR 374-180-92-05801 is tracking the replacement of all the Geiger-Muller Tubes for the "A" and "B" VC EMU Trains as well as the performance of the detectors after the GM tubes have been replaced.

AIR 373-180-91-07301 is tracking the completion of Modification M01-0-88-003. This modification will change the actuation of ESF Control Room Ventilation Process Radiation Monitoring Logic from one out of four to two out of four logic.

AIR 373-180-92-03601 is tracking the determination of the cause of the spikes and any additional corrective actions.

F. PREVIOUS EVENTS

LER Number	Title
374/92-007-00	Spurious Auto Start Of Control Room Ventilation Emergency Make-Up Train Due To High Radiation Spike
373/92-007-00	Auto Start Of 'B' VC/VE Emergency Make-Up Train
373/91-010-00	Spurious Auto Start Of Control Room Ventilation Emergency Make-Up Train Due To High Radiation Spike
373/91-008-00	Spurious Auto Start Of Control Room Ventilation Emergency Make-Up Train
373/88-016-00	VC EMU Auto Started Due To Spurious Radiation Monitor Spike/Random Noise
373/87-034-00	Auto Start Of "A" VC EMU/Spurious Trip/Unknown
373/86-025-01	Spurious ESF Actuation On 'B' VC/VE/Detector RTS Prior to Reinstalling Detector Housing
373/86-021-00	Spurious Trip Of VC Radiation Monitor/Bad Connection From The Indication Relay

G. COMPONENT FAILURE DATA

There are no known component failures for the High Radiation Spike problem. A NPRDS search was done for the PRM and nothing was found.

EVENT SUMMARY AND CAUSE CODES

 DVR Number
 212-92-066

<input type="checkbox"/> Lost generation	<input type="checkbox"/> Reactor trip	<input type="checkbox"/> NRC violation, level_
<input type="checkbox"/> Cost > \$25,000	<input type="checkbox"/> ESF actuation	<input type="checkbox"/> GSEP event, class_
<input type="checkbox"/> Hazard or Spill	<input type="checkbox"/> NRC reportable	<input type="checkbox"/> Tech Spec LCO
<input type="checkbox"/> Personnel injury	<input checked="" type="checkbox"/> IER	<input type="checkbox"/> Potential or future loss
<input type="checkbox"/> Component type	<input type="checkbox"/> PSE	<input type="checkbox"/> SALP functional area_
	Failure mode	

Component type		Failure mode		Department	
X	I E L			I M	Unknown
X					
X					

Licensed? L or blank		Type		Detail code	
Level		Department			
A					
A					
A					

Type		Detail Code		Department	
B					
B					
B					
B					

Type		Detail code	
C			
Type of deficiency			
Detail code		Procedure type	
D			
D			
D			

Type		Detail code		Department	
E					
E					
E					