

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)  
Quad-Cities Nuclear Power Station, Unit 1DOCKET NUMBER (2)  
0 5 0 0 0 2 5 4 1 OF 0 2TITLE (4)  
1A Fuel Pool Radiation Monitor Spiked High

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)						
0	4	0	3	8	5	8	5	0	1	4	0	5	0	0	0		

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)															
POWER LEVEL (10) 1 0 0	4	20.402(b)				20.406(c)				<input checked="" type="checkbox"/> 80.73(a)(2)(iv)				73.71(b)			
		20.406(a)(1)(i)				80.36(c)(1)				<input type="checkbox"/> 80.73(a)(2)(v)				73.71(c)			
		20.406(a)(1)(ii)				80.36(c)(2)				<input type="checkbox"/> 80.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 356A)			
		20.406(a)(1)(iii)				80.73(a)(2)(i)				<input type="checkbox"/> 80.73(a)(2)(vii)(A)							
		20.406(a)(1)(iv)				80.73(a)(2)(ii)				<input type="checkbox"/> 80.73(a)(2)(vii)(B)							
		20.406(a)(1)(v)				80.73(a)(2)(iii)				<input type="checkbox"/> 80.73(a)(2)(x)							

LICENSEE CONTACT FOR THIS LER (12)  
NAME  
Thomas R. Crippes, Technical Staff EngineerTELEPHONE NUMBER  
AREA CODE  
3 0 9 6 5 4 - 2 2 4 1

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	CAUSE	SYSTEM
X	I L			N							

SUPPLEMENTAL REPORT EXPECTED (14)  
☐ YES (If yes, complete EXPECTED SUBMISSION DATE)  
☒ NOEXPECTED SUBMISSION DATE (15)  
MONTH DAY YEAR

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

On April 3, 1985, Unit One was operating at 100 percent of rated core thermal power. The 1A Fuel Pool Radiation Monitor (IL) spiked upscale energizing the "Fuel Pool Channel A High Radiation" alarm. The monitor reset immediately and was verified to be operable. Due to the spurious signal, the Reactor Building Ventilation System (VA) isolated and the Standby Gas Treatment System (BH) automatically started. There was no radioactive release associated with this event, and all systems and logic performed as designed.

The probable cause of these failures was a loose capacitor and an open light emitting diode in the sensor unit of the radiation monitor. This cause was discovered and is documented in LER 85-012.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)  Quad-Cities Nuclear Power Station, Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 2 5 4 8 5 - 0 1 4 - 0 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
					0 2	OF	0 2

TEXT (If more space is required, use additional NRC Form 308A's) (17)

Event Description

On April 3, 1985, Unit One was in the RUN mode operating at 100 percent thermal power. At 8:35 a.m., the 1A Fuel Pool Radiation Monitor (IL) failed upscale, energizing the "Fuel Pool Channel A High Radiation" alarm. The monitor reset immediately and was verified to be operable. Due to the spurious signal, the Reactor Building Ventilation System (VA) isolated and the Standby Gas Treatment System (SBGTS) (BH) automatically started. Work Request Q41378 was written to investigate the problem. At 8:45 a.m., the Reactor Building Ventilation System was reset and started. There was no radioactive release associated with this event and all systems and logic performed as designed (with the exception of the spurious monitor spikes), therefore, the safety implications of this event were minimal.

Technical Specification 3.2.D.1 requires that two Refueling Floor radiation monitors be operable whenever irradiated fuel or components are present in the Fuel Pool. Technical Specification 3.2.D.2 allows any one of the monitors to be inoperable for a 24 hour period, then if not repaired, the Reactor Building Ventilation must be isolated and SBGTS must be operated.

This report is being submitted as required by the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(iv).

Cause

The cause of the spurious trips was a loose capacitor and an open light emitting diode (LED) in the sensor unit of the radiation monitor. This cause was discovered after subsequent trips on the unit and are documented in LER 85-012. The Fuel Pool Radiation Monitor sensor and convertor are manufactured by General Electric Company, Model No. 194X927G-16. The indicator and trip unit are also manufactured by General Electric, Model No. 129B2802G006.

Corrective Action

Previous occurrences of this type are documented in Licensee Event Report 85-005. Instrument Maintenance personnel investigated the upscale failure and no apparent cause of failure could be found, until subsequent trips, documented in LER 85-012. To help isolate and identify the problem, the Instrument Mechanics switched the 1A indicator trip unit with the 1B indicator trip unit and performed a functional test. Since these trip units were switched, no spurious spikes occurred for 15 days. The spurious trips that have occurred since the 15 day period are documented in Licensee Event Report 85-012. When the definitive cause of the spurious trips of the radiation monitors was discovered, the loose capacitor and open LED were replaced at 0325 hours on April 20, 1985.



**Commonwealth Edison**

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NJK-85-150

May 29, 1985

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

Reference: Quad-Cities Nuclear Power Station  
Docket Number 50-254, DPR-29, Unit One

Enclosed please find Licensee Event Reports (LER) 85-005, Revision 02, and 85-014, Revision 01, for Quad-Cities Nuclear Power Station.

This report is submitted to you in accordance with the requirements of the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(iv), to correct the cause of the subject Licensee Event Reports.

Respectfully,

COMMONWEALTH EDISON COMPANY  
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis  
Station Manager

NJK:BRS/bb

Enclosure

cc B. Rybak  
A. Madison  
INPO Records Center  
NRC Region III

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