

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Quad-Cities Nuclear Power Station, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 5 4				PAGE (3) 1 OF 0 3		
TITLE (4) Fuel Pool Radiation Monitor Spike High and Start of Standby Gas Treatment System																
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 NA				DOCKET NUMBER(S) 0 5 0 0 0			
0 5	3 1	8 5	8 5	0 0 7	0 0	0 6	2 4	8 5					0 5 0 0 0			
OPERATING MODE (9) 1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)														
POWER LEVEL (10) 0		20.402(b)				20.405(a)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)		73.71(b)				
		20.405(a)(1)(i)				50.38(a)(1)				<input type="checkbox"/> 50.73(a)(2)(v)		73.71(a)				
		20.405(a)(1)(ii)				50.38(a)(2)				<input type="checkbox"/> 50.73(a)(2)(vi)		OTHER (Specify in Abstract below end in Text, NRC Form 288A)				
		20.405(a)(1)(iii)				50.73(a)(2)(i)				<input type="checkbox"/> 50.73(a)(2)(vii)(A)						
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				<input type="checkbox"/> 50.73(a)(2)(vii)(B)						
		20.405(a)(1)(v)				50.73(a)(2)(iii)				<input type="checkbox"/> 50.73(a)(2)(ix)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME Thomas Crippes, Technical Staff (extension 181)										TELEPHONE NUMBER AREA CODE 3 0 1 9 6 1 5 4 1 - 1 2 1 2 1 4 1						
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						
X	IL	M O N G	0 8	2												
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO				

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

On May 31, 1985, Unit 1 was in the STARTUP mode with all control rods fully inserted and at 0 percent of rated core thermal power. At 0156 hours, the 1A Fuel Pool Radiation Monitor (IL) failed upscale tripping the Reactor Building Ventilation (VA) and starting the Standby Gas Treatment System (BH). The monitor remained at greater than 100 mr/hour for approximately three minutes and then returned to normal. Personnel from the Radiation/Chemistry Department surveyed the area and found all radiation levels to be normal. Instrument Maintenance personnel switched the 1A Fuel Pool Radiation Monitor Sensor Converter with the 1B Sensor Converter. At 2130 hours, the same day, the 1B Fuel Pool Radiation Monitor spiked upscale and started the Standby Gas Treatment System. The Sensor Converter was replaced with a new Sensor Converter and was successfully tested.

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), which requires the reporting of an event that resulted in an actuation of any Engineered Safety Feature (ESF).

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

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	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	0 0 7	0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 388A's) (17)

Event Description

On May 31, 1985, Unit 1 was in the STARTUP mode with all control rods fully inserted and at 0 percent of rated thermal power. At 0156 hours, the 1A Fuel Pool Radiation Monitor (IL) failed upscale giving a high radiation alarm on the 901-3 Panel. This signal tripped the Reactor Building Ventilation (VA) and started the Standby Gas Treatment System (BH). The monitor remained at greater than 100 mr/hour for approximately three minutes and then returned to normal. At this time, the Instrument Mechanics and the Nuclear Regulatory Commission were notified. Personnel from the Radiation Chemistry Department surveyed the Refuel Floor and found that the radiation levels were normal. At 0345 hours, the Instrument Mechanics switched the Unit 1 Channel A Fuel Pool Radiation Monitor Sensor Convertor with the Unit 1 Channel B Fuel Pool Radiation Monitor Sensor Convertor. The Reactor Building Ventilation was restarted and the two monitors appeared to be operating satisfactorily. At 2130 hours, on the same day, the 1B Fuel Pool Radiation Monitor failed upscale to approximately 100 mr/hour. Again, the Reactor Building Ventilation isolated and Standby Gas Treatment System started. After ten minutes the monitor returned to normal. Personnel from the Radiation Chemistry Department were notified immediately and it was found that the local reading on the Refuel Floor was 3 mr/hour which is a safe condition. The Shift Operating Supervisor and the Nuclear Regulatory Commission were notified.

The Fuel Pool Radiation Monitoring system at Quad-Cities Unit 1 consists of two channels. The minimum number of channels that are required to be operable is one per Technical Specification Table 3.2-6, provided the inoperable monitor is repaired and back in service within 24 hours. At least one monitor was operable at all times during the event, therefore, the safety consequences of this event were minimal.

Cause

During investigation, it was apparent that the Sensor Convertor, Model Number 194X927G16, manufactured by General Electric, needed to be replaced. The cause for the Sensor Convertor failing is not presently known.

It appears that these two incidents of the Fuel Pool Radiation Monitor upscale trips is unrelated to the previous upscale trips that have occurred this year on Unit 1. Those upscale trips are documented in Licensee Event Reports 85-005, 85-012, and 85-014, and were a type of upscale spike that immediately returned to normal readings. The two upscale trips documented in this LER spiked upscale and held that reading for several minutes. The cause of the previous upscale trips was in the Sensor Unit of the radiation monitor. The problem causing these last two upscale trips is in the Sensor Convertor.

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			YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
						0 3	OF	0 3

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

Corrective Action

The failed Sensor Convertor was replaced like-for-like with a new Sensor Convertor and was successfully tested for proper operation per QIS-35, "Reactor Building Fuel Pool Radiation Monitoring Surveillance Test No. 35". The Fuel Pool Radiation Monitor was put back into service on June 1, 1985.

A number of upscale trips of the Fuel Pool Radiation Monitor have occurred this year. The most recent is documented in LER 85-012 and occurred on April 19, 1985. There was, however, no Sensor Convertor failure involved in that incident.



**Commonwealth Edison**

Quad Cities Nuclear Power Station  
22710 206 Avenue North  
Cordova, Illinois 61242  
Telephone 309/854-2241

NJK-85-177

June 24, 1985

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

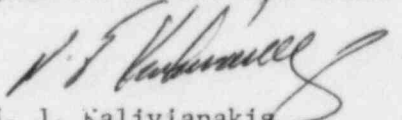
Reference: Quad-Cities Nuclear Power Station  
Docket Number 50-254, DPR-29, Unit One

Enclosed please find Licensee Event Report (LER) 85-007, Revision 00, 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), which requires the reporting of an event that resulted in an actuation of any Engineered Safety Feature (ESF).

Respectfully,

COMMONWEALTH EDISON COMPANY  
QUAD-CITIES NUCLEAR POWER STATION

  
N. J. Kalivianakis  
Station Manager

NJK:BRS/bb

Enclosure

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

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