NRC Form 366
(9-83)

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

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Quad-Cities Nuclear Power Station, Unit 2	0 5 0 0 0 2 6 5	1 OF 0 3

TITLE (4)
'A' Reactor Building Vent Monitor Drift & Failure of Two Vent Dampers to Close

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 6	2 8	8 5	8 5	0 1 5	0 0	0 7	1 9	8 5	NA	0 5 0 0 0
										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)			
	4	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	1 0 0	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 in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
John M. Lechmaier, Technical Staff, ext. 489	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	
X	I L	M O N	G 0 8 2	Y		X	V A	D M P		Y	
X	V A	S O L	V 0 9 5	Y							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On June 28, 1985, at 0130 hours, Unit 2 was operating at 100 percent of rated core thermal power. The Channel 'A' Reactor Building Ventilation Radiation Monitor (IL) drifted upscale, tripping the Reactor Building Ventilation System (VA) and starting the Standby Gas Treatment System. At 0145 hours, the monitor returned to below the trip setpoint. A survey conducted by the Radiation Protection Department revealed no abnormal radiation levels. At 0210 hours, the Channel 'A' Reactor Building Ventilation Radiation Monitor failed upscale and again tripped the Reactor Building Ventilation System and started the Standby Gas Treatment System. It was discovered that two isolation dampers failed to close after the second trip of the ventilation system. Redundant dampers, however, successfully isolated the Reactor Building Ventilation System.

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 any event that results in actuation of any Engineered Safety Feature.

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

Event Description

On June 28, 1985, at 0130 hours, Unit 2 was operating at approximately 100 percent core thermal power. The Channel 'A' Reactor Building Ventilation Radiation Monitor (IL) drifted upscale, tripping the Reactor Building Ventilation System (VA) and starting the Standby Gas Treatment System (BH). At 0145 hours, the monitor had returned to below the trip setpoint. A survey conducted by the Radiation Protection Department revealed no abnormal radiation levels. The Reactor Building Ventilation and Standby Gas Treatment System were returned to normal. At 0210 hours, the Channel 'A' Reactor Building Ventilation Radiation Monitor failed upscale, tripping the Reactor Building Ventilation System and starting the Standby Gas Treatment System. The failed monitor was taken out of service for repair. An Equipment Attendant found that the 2-5741A and 2-5742A Reactor Building Ventilation Dampers had failed to close. The failed dampers were closed and taken out of service for repair. Redundant dampers had closed and isolated the Reactor Building. The redundant Channel 'B' Reactor Building Ventilation Radiation Monitor was operable at all times.

This report is being submitted to satisfy the requirements outlined in 10 CFR 50.73(a)(2)(iv).

Cause

The root cause of the Radiation Monitor failure was due to failure of the Geiger-Mueller tube in the sensor and convertor unit. The failed Geiger-Mueller tube was an Amperex 18550.

The 2-5741A isolation damper failed to close due to failure of the valve operated solenoid. The failed solenoid was a Versa, VGS-4422-U-10-31-3BC. The cause of the 2-5742A isolation damper failure to close could not be determined. The isolation damper operated satisfactorily when tested.

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

Corrective Action

The failed Geiger-Mueller tube was replaced like-for-like with a new tube. The Radiation Monitor was functionally tested and returned to service at 1438 hours the same day.

The failed valve operator solenoid on the 2-5741A isolation damper was replaced like-for-like with a new solenoid. Because the cause of the 2-5742A isolation damper failure could not be determined, no corrective action was taken. Both isolation dampers were functionally tested and returned to service at 1450 hours the same day.

An NPRDS search of the failure history of radiation monitors, at all nuclear power plants, revealed 107 failures. Most of the documented failures were of different nature and different system than this event. Nine failures appear to have been caused by a bad detector and sensor convertor. A search of Quad-Cities Station deviation records revealed that the most recent Reactor Building Ventilation Monitor trip occurred on September 24, 1984, and is documented in DVR 4-1-84-63A.

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Cordova, Illinois 61242
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NJK-85-201

July 19, 1985

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

Reference: Quad-Cities Nuclear Power Station
Docket Number 50-265, DPR-30, Unit Two

Enclosed please find Licensee Event Report (LER) 85-15, 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 any event that results in actuation of any Engineered Safety Feature.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis
Station Manager

NJK:BRS/bb

Enclosure

cc J. Wojnarowski
A. Madison
INPO Records Center
NRC Region III

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