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)

Unit Scram While 'A' RPS Bus Was Out of Service

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)
									NA	0 5 0 0 0
0 1	0 3	8 4	8 4	— 0 0 1	— 0 0	0 1	3 0	8 4	NA	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)			
2	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 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
G. C. Tietz, Technical Staff Supervisor	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	

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 January 3 and 5, 1984, Reactor scrams occurred while the 'A' Reactor Protection System (RPS) was out of service for circuit breaker maintenance. In both cases, the unit was shutdown for a refueling outage. No annunciators or computer alarms came up to explain the reason for the 'B' RPS channel trip and resultant scram. Throughout the time span of the events, Intermediate Range Monitor (IRM) 18 had been spiking spuriously due to a faulty detector cable. It is postulated that the spiking IRM had caused the 'B' RPS channel trip, although no alarms were present to verify it. The detector cable for IRM 18 was replaced. Preventative maintenance on RPS buses are not routinely accomplished during power operation. The conditions surrounding this event would not exist during operation; therefore, no further corrective action is deemed appropriate at this time.

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

Event Description

During the Unit Two Refueling Outage, two Reactor scrams occurred while the 'A' Reactor Protection System (Plant Protection System -- JC) bus was removed from service for maintenance. The first scram occurred on January 3, 1984, at 11:07 a.m. The 'A' RPS bus was removed from service at 7:45 a.m. the same day. No alarm indications or computer output could positively identify the reason for the 'B' RPS trip. The conditions were repeated later that day in an attempt to determine the cause. However, the 'B' RPS channel would not trip.

On January 5, 1984, the 'A' RPS bus was removed from service again for maintenance at 7:55 a.m. At 7:58 a.m. the 'B' RPS channel tripped, causing a Reactor scram. Again, no indications were evident to identify the cause. An attempt to duplicate the conditions and scram proved fruitless later the same day.

Throughout the course of events, Unit Two was in the REFUEL mode with all control rods fully inserted. All systems involved functioned in a conservative manner.

The consequences of this event would not have jeopardized safe operation had the Reactor been in a different mode of operation. This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv).

Cause

Investigations into this event revealed that Intermediate Range Monitor (IRM) 18 had been acting erratically during the time span of the event. Spurious spiking had occurred occasionally on January 2 and evidently occurred again on January 3 while the 'A' RPS bus was de-energized. The spurious spiking was occurring again on January 5 when the second scram had occurred. The spiking was occurring often enough later that day to require the NSO to place IRM 18 in bypass. Therefore, when the conditions of the scram were duplicated, the IRM 18 was bypassed and did not cause a 'B' RPS channel trip.

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

Corrective Action

To correct the problem of IRM 18 spiking, a Work Request was written to investigate and repair the problem. It was discovered that the detector cable was causing the spurious spikes, and it was subsequently replaced.

Preventative maintenance on RPS buses are not routinely accomplished during operation of the unit. Therefore, the conditions surrounding this event would not exist during Reactor operation. No further corrective actions are deemed appropriate at this time.

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Quad Cities Nuclear Power Station
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Cordova, Illinois 61242
Telephone 309/654-2241

NJK-84-38

January 30, 1984

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 Number (LER) 84-1 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), an event that resulted in the actuation of the Reactor Protection System.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis
Station Superintendent

NJK:DGC/bb

Enclosure

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

IE22
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