

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Quad-Cities Nuclear Power Station, Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 2 6 5				PAGE (3) 1 OF 0 3		
TITLE (4) Unit 2 Reactor Scram on Loss of 48 Volt Battery 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				DOCKET NUMBER(S)			
0 1	0 6	8 4	8 4	0 0 2	0 0	0 1	2 7	8 4	NA				0 5 0 0 0			
										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)				20.406(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)		
POWER LEVEL (10)		20.406(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)		
0 1 0		20.406(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
		20.406(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)						
		20.406(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)						
		20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME Fred Kaeppel, Technical Staff Engineer										TELEPHONE NUMBER						
										AREA CODE						
										3 1 0 1 9 6 1 5 1 4 - 1 2 1 2 4 1						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs						
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 January 6, 1984, after performing a battery discharge test on the newly installed '2A' 48 Volt Battery, battery loads were being transferred to the '2A' 48 Volt Distribution Panel to facilitate replacement of the '2B' Battery. During the transfer, both distribution panels were inadvertently de-energized simultaneously. This caused a Reactor scram on the loss of both neutron monitoring channels. The transfer was completed immediately and the scram signal was reset. The unit was shutdown at the time for a refueling outage. A cognitive error on the part of the Engineer overseeing the Operator allowed both panels to be de-energized together instead of separated individually. Load transfers are not performed during normal operation. Since all systems performed as designed and the intent to prevent the paralleling of battery systems was successful, no corrective action is deemed necessary at this time.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Quad-Cities Nuclear Power Station Unit 2	0500026584	0	02	00	02	OF	03

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

EVENT DESCRIPTION

On January 4, 1984, a discharge test was performed on the newly installed '2A' 48 volt battery (DC power system - Class 1E -- EJ). After the test, the '2A' battery was placed on charge. During this time, the '2A' and '2B' 48 volt DC distribution panels were temporarily interconnected; the power for them being supplied by the 2B battery.

On January 6, 1984, the '2A' 48 volt battery was sufficiently charged to allow transferring the '2A' and '2B' distribution panels to the '2A' battery in order to replace the '2B' 48 volt battery. A Technical Staff Engineer made arrangements for the transfer and informed the Unit 2 Control Room Operator that the transfer would cause a half scram. At 1:10 p.m., under the supervision of the Technical Staff Engineer, an Equipment Operator began the transfer. While the transfer was taking place, a full scram occurred on Unit 2 rather than the expected half scram.

At the '2A' and '2B' 48 volt DC distribution panels, the Technical Staff Engineer realized, while performing the transfer, that both distribution panels had de-energized, because all four of the panel voltmeters had dropped to zero. He instructed the Equipment Operator to complete the transfer quickly and restored power to both distribution panels.

Throughout this course of events, Unit 2 was in the REFUEL mode with no fuel moves taking place. At the time of the scram, all control rods were fully inserted. The scram was caused by a simultaneous loss of power to the '2A' and '2B' 48 volt DC distribution panels. These panels supply power to the two divisions of Source Range and Intermediate Range Monitors of the neutron monitoring system (incore/excore monitoring system -- IG). Loss of both divisions of neutron monitoring caused both channels of the Reactor Protection System (plant protection system -- JC) to actuate, which resulted in a full scram. The neutron monitoring system and RPS functioned as designed.

This occurrence is reported in accordance with 10 CFR 50.73(a)(2)(iv).

CAUSE

The cause of this occurrence was a cognitive error on the part of the Technical Staff Engineer. He failed to realize that with the crosstie in place, the '2A' and '2B' 48 volt DC distribution panels would have to be separated and transferred individually rather than together. This resulted in both neutron monitoring channels being de-energized simultaneously instead of individually.

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

CORRECTIVE ACTION

On seeing that both the '2A' and '2B' 48 volt DC distribution panels had de-energized, the Technical Staff Engineer instructed the Equipment Operator to complete the transfer to re-energize them. When this was done, the Unit 2 Control Room Operator was able to reset the scram. The duration of the scram signal was less than 30 seconds.

Transferring loads on the 48 volt DC distribution panels is performed routinely during unit outages for maintenance and battery discharge tests. Care is taken during transfers to prevent paralleling the batteries and battery chargers. The battery systems were not put in parallel and all systems operated as designed, therefore, no corrective action is deemed necessary at this time.



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NJK-84-35

January 27, 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) 84-2
for Quad-Cities Nuclear Power Station.

This report is submitted to you in accordance with the require-
ments of the Code of Federal Regulations, Title 10, Part 50.73(a)(2)
(iv), as an event that resulted in the automatic actuation of the
Reactor Protection System.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

L. J. Kalivianakis

N. J. Kalivianakis
Station Superintendent

NJK:DGC/bb

Enclosure

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

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