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ACCESSION NBR: 8807070137 DOC. DATE: 88/06/22 NOTARIZED: NO DOCKET #
 FACIL: 50-265 Quad-Cities Station, Unit 2, Commonwealth Edison Co. 05000265
 AUTH. NAME AUTHOR AFFILIATION
 BRITZ, D.J. Commonwealth Edison Co.
 BAX, R.L. Commonwealth Edison Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-016-00: on 880601, partial Group II isolation from blown fuses due to maint activity.

W/8 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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		L	T	E	N	C	L	R			L	T	E	N	C	L	R	
	PD3-2 LA	1					1			PD3-2 PD	1					1		
	ROSS, T	1					1											
INTERNAL:	ACRS MICHELSON	1					1			ACRS MOELLER	2					2		
	AEOD/DOA	1					1			AEOD/DSP/NAS	1					1		
	AEOD/DSP/ROAB	2					2			AEOD/DSP/TPAB	1					1		
	ARM/DCTS/DAB	1					1			DEDRO	1					1		
	NRR/DEST/ADS 7E	1				0				NRR/DEST/CEB 8H	1					1		
	NRR/DEST/ESB 8D	1					1			NRR/DEST/ICSB 7	1					1		
	NRR/DEST/MEB 9H	1					1			NRR/DEST/MTB 9H	1					1		
	NRR/DEST/PSB 8D	1					1			NRR/DEST/RSB 8E	1					1		
	NRR/DEST/SGB 8D	1					1			NRR/DLPQ/HFB 10	1					1		
	NRR/DLPQ/QAB 10	1					1			NRR/DOEA/EAB 11	1					1		
	NRR/DREP/RAB 10	1					1			NRR/DREP/RPB 10	2					2		
	NRR/DRIS/SIB 9A	1					1			NUDOCS-ABSTRACT	1					1		
	REG FILE 02	1					1			RES TELFORD, J	1					1		
	RES/DE/EIB	1					1			RES/DRPS DEPY	1					1		
	RGN3 FILE 01	1					1											
EXTERNAL:	EG&G WILLIAMS, S	4					4			FORD BLDG HOY, A	1					1		
	H ST LOBBY WARD	1					1			LPDR	1					1		
	NRC PDR	1					1			NSIC HARRIS, J	1					1		
	NSIC MAYS, G	1					1											

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LICENSEE EVENT REPORT (LER)

Facility Name (1) **QUAD-CITIES NUCLEAR POWER STATION, UNIT TWO** Docket Number (2) **0 5 0 0 0 2 6 5** Page (3) **1 of 0 4**

Title (4) **Unit Two Partial Group II Isolation From Blown Fuses Due to Maintenance Activity**

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	0 1	8 8	8 8	0 1 6	0 0	0 6	2 2	8 8		0 5 0 0 0	

OPERATING MODE (9) **1**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> Other (Specify in Abstract below and in Text)
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POWER LEVEL (10) **0 0 0**

LICENSEE CONTACT FOR THIS LER (12)

Name **Douglas J. Britz, Technical Staff Engineer, Ext. 2141** TELEPHONE NUMBER **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)

Yes (If yes, complete EXPECTED SUBMISSION DATE) NO

Expected Submission Date (15) **Month | Day | Year**

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

On June 1, 1988, at approximately 0130 hours, Electrical Maintenance personnel were in the process of reinstalling the 595-104D relay on Unit Two. At 0236 hours a partial Group II isolation occurred. Investigation found that the cause of the partial Group II was a blown fuse. The cause of the blown fuse was determined to be shorting or grounding out of a portion of the Group II isolation circuit.

The safety significance of this event is minimal. The blown fuses caused the system to actuate in a conservative manner causing the partial Group II isolation. All systems performed their intended function as designed.

The corrective action was to replace the fuse and reset the Group II logic.

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LICENSE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	Sequential Number	Revision Number						
Quad Cities Unit Two	0 5 0 0 0 2 6 5	8 8	- 0 1 6	-	0 0	0 2	0 F	0 4		
TEXT										

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 Mwt rated core thermal power. Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

EVENT IDENTIFICATION:

A. CONDITIONS PRIOR TO EVENT:

Unit: 2 Event Date: 06-01-88 Event Time: 0236
 Reactor Mode: 1 Mode Name: SHUTDOWN Power Level: 0%

This report was initiated by Deviation Report D-4-2-88-031.

SHUTDOWN Mode (1) - In this position, a reactor scram is initiated, power to the control rod drives is removed, and the reactor protection trip systems have been deenergized for 10 seconds prior to permissive for manual reset.

B. DESCRIPTION OF EVENT:

On June 1, 1988, Unit Two was in the SHUTDOWN mode at 0 percent rated thermal power with all control rods inserted. At approximately 0130 hours, Electrical Maintenance (EM) personnel were in the process of reinstalling the 595-104D relay in the 902-17 panel under Work Request Q62120. At 0236 hours a partial Group II isolation [JM] signal was received and caused the following Engineering Safety Feature (ESF) [JE] actuations to occur: The Drywell Pneumatic Suction [V] valve 2-4721 auto-closed, and the Residual Heat Removal (RHR) [BO] to Radwaste [WD] valve 2-1001-21 auto-closed. At the same time, light indication was lost in the Control Room for the following: Drywell Floor Drain Isolation [V] valve 2-2001-4, Drywell Equipment Drain [V] valve 2-2001-16, and the Reactor Building Floor and Equipment Sump Pumps [P].

Upon investigation, it was determined that fuse [FU] 595-714 in panel 902-40 and fuse 595-721 in panel 902-41 had blown which simulated a partial Group II isolation. The fuses were replaced and remained intact. The isolations were reset at 0344 hours.

At 0457 hours, appropriate notification was made using the Emergency Notification System (ENS). At 0715 hours, the NRC Resident Inspector was notified.

C. APPARENT CAUSE OF THE EVENT:

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 or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS).

LICENSE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	///	Sequential Number	///	Revision Number				
Quad Cities Unit Two	0 5 0 0 0 2 6 5	8 8	-	0 1 6	-	0 0	0 3	OF	0 4	
TEXT										

The cause of the partial Group II isolation was the blown fuses in panels 902-40 and 902-41. This resulted in a Group II isolation to a portion of the system. The cause of the blown fuses was determined to be the shorting or grounding out of a portion of the Group II isolation circuit while reconnecting wires on the 595-104D relay. The fuses were each part of a circuit which had a contact involving the 595-104D relay. The wires to be reconnected had previously been individually taped during removal of the relay. The EM personnel were following an approved set of work instructions which instructed them to untape and reconnect each wire to the relay. The coil of the relay had been removed from service; however, each contact still had the possibility of being part of an energized circuit. The work instructions did state that some contacts could be "hot." The shorting or grounding of the circuits occurred without the knowledge of the electricians.

D. SAFETY ANALYSIS OF EVENT:

The safety significance of this event is minimal. The blown fuses caused the system to actuate in a conservative manner causing the partial Group II isolation. All systems performed their intended function as designed.

A Group II isolation is normally actuated from one of the following signals: Reactor Vessel Low Water Level, Drywell High Radiation, or Drywell High Pressure. Had one of these signals occurred during the event, the rest of the Group II actuations would have taken place as designed.

E. CORRECTIVE ACTIONS:

The immediate corrective action was to replace the fuses and reset the partial Group II isolation. This allowed the Group II isolation system to be returned to normal.

The Electrical Maintenance Department has reviewed this event and has concluded that the work instructions and maintenance practices currently in effect are adequate while performing this type of work. Working with energized wires in close quarters always presents a potential for grounding or shorting a circuit. Work packages will continue to caution that circuits may be energized and to exercise care.

This event will be incorporated into continuing training for Electrical Maintenance personnel. This item is being tracked under NTS 2652008803100.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			Page (3)		
		Year	Sequential Number	Revision Number			
Quad Cities Unit Two TEXT	0 5 0 0 0 2 6 5	8 8	- 0 1 6	- 0 0	0 4	OF	0 4

F. PREVIOUS EVENTS:

A search of previous Licensee Event Reports (LER) at Quad Cities Station revealed four events caused by blown fuses.

<u>LER NUMBER</u>	<u>TITLE</u>
50-254/85-021	Unit One RCIC Inop. Due to Failed Fuse in Controller
50-254/85-022	Standby Gas Train A Loses Flow Due to Obstructed Intake and Train B Doesn't Start Due to Blown Fuse
50-265/87-001	Failure of 1/2 Diesel Generator to Auto-Start During Core Spray Logic Testing Due to Electrical Drawing Error (which caused blown fuse)

The most recent LER 50-254/88-015 (described below) was compared to this event and it was concluded that these two events are unrelated.

50-265/88-015	Unit Two Partial Group II Isolation From Blown Fuse Due to Unknown Reason
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G. COMPONENT FAILURE DATA:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>MFG Part Number</u>
McGraw-Edison Bussman Division)	Fuse	Fusetron	FNA 5 Amp



Commonwealth Edison
Quad Cities Nuclear Power Station
22710 206 Avenue North
Cordova, Illinois 61242
Telephone 309/654-2241

wrc

RLB-88-210

June 22, 1988

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 is Licensee Event Report (LER) 88-016, Revision 00, for
Quad-Cities Nuclear Power Station.

This report is submitted in accordance with the requirements of the Code
of Federal Regulations, Title 10, Part 50.73(a)(2)(iv): The licensee shall
report any event or condition that resulted in manual or automatic actuation
of any Engineered Safety Feature, including the Reactor Protection System.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

R. A. Robey for
R. L. Bax
Station Manager

RLB/RW/ad

Enclosure

cc: I. Johnson
R. Higgins
INPO Records Center
NRC Region III

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