



Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

July 24, 1991

EDE LTR #91-454

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

Licensee Event Report #91-014, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(iv).

E. D. Eenigenburg
Station Manager
Dresden Nuclear Power Station

EDE/dwh

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
File/NRC
File/Numerical

9108060256 910725
PDR ADCK 05000237
S PDR

TE22
111

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 2 Docket Number (2) 0 | 5 | 0 | 0 | 0 | 2 | 3 | 7 Page (3) 1 | of | 0 | 4

Title (4) Primary Containment Isolation Valve Closure Due to Reactor Water Cleanup System Isolation

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	7	0	9	1	9	1	0	1	4	0	0	0	7	2	5	9	1	N/A				

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)											
POWER LEVEL (10)		20.402(b)			20.405(c)			X 50.73(a)(2)(iv)			73.71(b)		
0 4 8		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)		
		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 John Reid Telephone Number
 Technical Staff System Engineer AREA CODE 8 | 1 | 5
 Ext. 2380 -12 | 9 | 2 | 0

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	
X	C	E	I	L							
			G	0	18	0					

SUPPLEMENTAL REPORT EXPECTED (14)
 Yes (If yes, complete EXPECTED SUBMISSION DATE) X | NO
 Expected Submission Date (15) Month | Day | Year

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

On July 4, 1991 at 1645 hours with Unit 2 at 48% power, a Reactor Water Cleanup System (RWCU) isolation occurred with Primary Containment Isolation Motor Operated Valves (MOVs) 2-1201-1 and 2-1201-2 fully closing. Operations personnel were replacing a position indication light at a local control station for MOV 2-1201-7 when the RWCU isolation occurred. Investigation revealed that a momentary short circuit occurred when the bulb was being replaced which resulted in the deenergization of relay 2-595-133, as it is electrically in parallel with the bulb. The deenergization of this relay initiated a trip of the RWCU recirculation pump and causing the RWCU system to isolate on a high pressure signal. Corrective actions included successful replacement of the bulb and prompt return of the RWCU system to normal operation. This event had no safety significance because the RWCU system properly isolated on the high pressure signal and isolation of the RWCU system for short periods has no affect on power operation or coolant chemistry limits. A previous event involving a partial Primary Containment Group I Isolation while changing a position indication bulb was reported by LER 91-1/050237.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	Sequential Number	Revision Number						
Dresden Nuclear Power Station	0 5 0 0 0 2 3 7	9 1	- 0 1 4	- 0 0				0 3	OF	0 4

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

C. APPARENT CAUSE OF EVENT:

This report is submitted in accordance with Title 10 of the Code of Federal Regulations Part 50 Section 73(a)(2)(iv), which states that any event that results in manual or automatic actuation of any Engineered Safety feature, including the Reactor Protection System (RPS), must be reported.

The root cause of the RWCU recirculation pump trip and subsequent system isolation was the temporary shorting of the position indication light circuit during bulb replacement. It is believed that the Operator inadvertently contacted the local control station case with the bulb as he was inserting it in the light socket, creating a short circuit path to ground. When the short occurred relay 2-595-133 was temporarily de-energized as it is in electrical parallel with the light bulb. This relay provides tripping of the RWCU recirculation and auxiliary pumps when MOV 2-1201-7 is closed. The tripping of RWCU recirculation pump 2B occurred and as expected. Following the trip of the pump the RWCU system automatically isolated, including closure of MOV 2-1201-1 and MOV 2-1201-2. This is believed to have been a spurious event. A maintenance history review indicated no adverse trend concerning indicating lamp sockets for local control stations.

Investigation into the ENS call concern concluded that the improper interpretation of 10CFR50.72 concerning ESF actuations had resulted from management deficiency. Following a previous event involving closure of eleven Unit 2 Primary Containment isolation valves (refer to LER 90-22/050237) for which an ENS call was not initially performed because the initiating conditions did not directly involve PCIS, the EPIP procedures concerning ENS calls had been enhanced concerning requiring completion of an ENS call for any event involving partial or complete ESF actuation following any challenge to ESF logic. Operations Memorandum Number 21 had also been issued to provide greater awareness of this concern. However, in the current event involving an RWCU system trip, it was incorrectly concluded initially that since the event was solely a system isolation (not driven by PCIS), an ENS call was not required. Review of the event concluded that the procedural enhancements and memorandum were inadequately clear.

D. SAFETY ANALYSIS OF EVENT:

The purpose of the RWCU system is to maintain reactor water chemistry within Technical Specification requirements. As this event was promptly resolved and the RWCU system was returned to service immediately, Technical Specification limits were not exceeded. The RWCU system automatically isolated, as designed, upon receipt of a high pressure signal in the RWCU system. There was no effect on public health or safety. For these reasons, this event had no safety significance.

E. CORRECTIVE ACTIONS:

The immediate corrective actions concerning the short circuit were to complete replacement of the light bulb and reestablish RWCU system operation. Although the bulb was installed and there was never any problem with MOV 2-1201-7, WR 02318 was initiated for the Electrical Maintenance Department to inspect the local control station for MOV 2-1201-7. This inspection confirmed that no damage to the socket had occurred; however, the socket was replaced as a conservative measure. A Temporary Procedure Change was performed against DOS 040-4 to provide a precaution against contacting bulbs against the control station casing while replacing them; this change will be implemented permanently (237-200-91-11201).

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	Sequential Number	Revision Number						
Dresden Nuclear Power Station	0 5 0 0 0 2 3 7	9 1	- 0 1 4	-	0 0	0 4	OF	0 4		

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

Corrective actions concerning the ENS notification concern include the following items:

1. This concern was reviewed with Operations Management.
2. A training session for Station Control Room Engineers and Shift Engineers concerning ENS policy is scheduled for August 7, 1991. This session will be presented by an Assistant Technical Staff Supervisor responsible for review of LERs and will include a detailed review of 10CFR50.72 requirements (237-200-91-11202).
3. The Operations Staff made further enhancements to EPIP 300-2, EPIP 300-S8 and Memorandum Number 12 to provide further clarification concerning ENS call requirements associated with ESF actuations.

F. PREVIOUS OCCURENCES:

LER/Docket Numbers Title

91-1/050237 Partial Group I Isolation Due to Shorting of 1B MSIV [SB] Position Indicating Light Socket

This event involved unplanned automatic closure of two Primary Containment Group I Isolation valves due to shorting of the 1B Main Steam Isolation Valve (MSIV) open position indicating lamp socket in the Control Room. The short occurred during bulb changing and was attributed to foreign material in the lamp socket. The Operator had vacuumed the socket prior to installing the new bulb in accordance with procedural requirements; however, the foreign material may have been introduced by the vacuum nozzle. Routine vacuuming of the Control Room sockets continues to be performed and has been effective in reducing events of shorting on the Control Room panels.

G. COMPONENT FAILURE DATA:

As there was no component failure this section does not apply.