



Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
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May 15, 1992

CWS LTR #92-266

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

Licensee Event Report 92-12, Docket 050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(iv).

Charles W. Schroeder
Station Manager
Dresden Nuclear Power Station

CWS/cfq

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

220632

ZDVR/599

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 3 Docket Number (2) 0 15 10 10 10 12 14 19 Page (3) 1 of 0 5

Title (4) LPCI Minimum Flow Valve M03-1501-13A Auto Closure During Valve Operability Test Due to Unknown Cause

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	4	1992	92	012	00	0	5	1992	N/A		
									N/A		

OPERATING MODE (9) N

POWER LEVEL (10) 0 0 0

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

LICENSEE CONTACT FOR THIS LER (12)

Name Sang J. Rhee Technical Staff System Engineer Ext. 2371

TELEPHONE NUMBER AREA CODE 8 1 5 9 4 2 - 2 19 12 10

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)

X Yes (If yes, complete EXPECTED SUBMISSION DATE) NO

Expected Submission Date (15) 0 2 2 8 9 3

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

On April 19, 1992 at 1840 hours with Unit 3 shutdown for a refueling outage, while performing Dresden Operating Surveillance (DOS) 1500-1, LPCI System Valve Operability Test, the LPCI minimum flow valve, M03-1501-13A, auto closed when the LPCI Torus Cooling/Test valve, M03-1501-38A, was cycled. The LPCI minimum flow valve was repositioned back to the open position immediately. The Nuclear Station Operator (NSO) then notified the Station Control Room Engineer (SCRE) who notified the Shift Engineer. The Operations Shift Supervision promptly reviewed this event for 10CFR50.72 notification applicability, utilizing Dresden Administration Procedure (DAP) 2-8, Deviation Report and Technical Specifications Table 3.7.1, Primary Containment Isolation Valves. Upon review of the DAP 2-8, Technical Specifications, and further consultation with shift personnel, it was concluded that a 10CFR50.72 notification was not required. Work Request (WR) 08644 was initiated to investigate the LPCI minimum flow valve auto closure anomaly.

An investigation suggests that the volume between the M03-1501-38A(B) and the M03-1501-20A(B) was depressurized during the monthly LPCI System Valve Operability test when the M03-1501-20A(B) was cycled. Subsequently, when the M03-1501-38A(B) was cycled, an instantaneous flow was sensed by the flow element as the volume repressurizes, resulting in the closure of the M03-1501-13A(B). The LPCI valve operability test was continued, and the LPCI minimum flow valve closed a second time when the B LPCI Loop Torus Cooling/Test Valve, M03-1501-38B, was cycled. This event had minimal safety significance because the LPCI minimum flow valve would have auto opened if the LPCI pumps started and were operating with low flow. Corrective actions include a review of this event with the Operations personnel and Temporary Procedure Changes 92-192 and 92-193 were initiated against DOS 1500-1 and DOS 1600-1, Quarterly Valve Timing. A similar event was reported by DVR 12-3-88-21.

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 4 9	9 2	-	0 1 2	-	0 0	0 2	OF	0 5	

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

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2527 Mwt rated core thermal power

Nuclear Tracking System (NTS) tracking code numbers are identified in the text as (XXX-XXX-XX-XXXXX)

EVENT IDENTIFICATION:

LPCI Minimum Flow Valve M03-1501-13A Auto Closure During Valve Operability Test Due to Unknown Cause.

A. CONDITIONS PRIOR TO EVENT:

Unit: 3 Event Date: April 19, 1992 Event Time: 1840 Hours
 Reactor Mode: N Mode Name: Refuel Power Level(S): 0%
 Reactor Coolant System (RCS) Pressure: 0 psig

B. DESCRIPTION OF EVENT:

On April 19, 1992 at 1840 hours with Unit 3 shutdown for a refueling outage, while performing Dresden Operating Surveillance (DOS) 1500-1, LPCI System Valve Operability Test, the LPCI [B0] minimum flow valve, M03-1501-13A auto closed when the LPCI Torus Cooling/Test valve, M03-1501-38A, was cycled. The LPCI minimum flow valve was repositioned back to the open position immediately. The Nuclear Station Operator (NSO) then notified the Station Control Room Engineer (SCRE) who notified the Shift Engineer. Work Request (WR) 08644 was initiated to investigate the LPCI minimum flow valve auto closure anomaly. The LPCI valve operability test continued, and the LPCI minimum flow valve closed a second time when the B LPCI Loop Torus Cooling/Test Valve, M03-1501-38B, was cycled.

Operations Shift Supervision promptly reviewed this event for 10CFR50.72 notification applicability, utilizing Dresden Administration Procedure (DAP) 2-8, Deviation Reporting, and Technical Specification Table 3.7.1, Primary Containment Isolation Valves. Upon review of the DAP 2-8, Technical Specifications, and further consultation with shift personnel, it was concluded that a 10CFR50.72 call was not required. However, when reviewing Unit status the following morning at a routine planning meeting, on April 20, 1992, Station Management determined that a four-hour ENS notification call was in fact required by 10CFR50.72(b)(2)(ii) because the event had resulted in movement of the LPCI minimum flow valve (ESF components). The ENS call was then completed at 1016 hours on April 20, 1992.

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with 10CFR50.73(a)(2)(iv), which requires the reporting of any event or condition that results in the manual or automatic actuation of any Engineered Safety Feature (ESF).

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 4 9	9 2	-	0 1 2	-	0 0	0 3	Of	0 5	

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Upon further investigation/testing under WR 08644, it was postulated that the volume between the M03-1501-38A(B) and the M03-1501-20A(B) was depressurized during the LPCI System Valve Operability test when the M03-1501-38A(B) cycled. Subsequently, when the M03-1501-38A(B) valve is cycled, an instantaneous flow was sensed by the flow element as the volume repressurizes resulting in the closure of the LPCI minimum flow valve, M03-1501-13A(B). The testing was unable to duplicate the closure of M03-1501-13A when M03-1501-38B was cycled.

Investigation into the delay for making the ENS call concluded that this was a result of the failure to implement an effective training program on ESF actuations. Previous event corrective actions lacked effective use of the Training Department as a tool to communicate additional management guidance on what constitutes an ESF. A second contributing cause was the lack of a comprehensive ENS phone notification process for the shift personnel to utilize to obtain all available resources in their decision making process. The use of Emergency Plan Implementing Procedures (EPIP), 300-2 and 300-S8, may have resulted in the call being made because of the comments associated with the section on ESF actuations which may have provided the insight and guidance to make the ENS notification call.

D. SAFETY ANALYSIS OF EVENT:

The function of valves M03-1501-13A and -13B is to provide a minimum flow path for the LPCI pumps in order to prevent pump damage. The valves are repositioned based on the system flow. At the time the valves went closed, the pumps were not operating and redundant low pressure emergency cooling systems were unaffected. The valves were repositioned back to the open position immediately. Momentary closing of the LPCI minimum flow valves presented minimal potential for damaging the pumps as damage would occur only after prolonged operation with no minimum flow protection. Safety significance of this event is therefore considered minimal.

E. CORRECTIVE ACTIONS:

Investigation/testing was performed by Operating Department, Instrument Department, and Technical Staff personnel to duplicate the event. Based on investigation/testing the Temporary Procedure Changes (TPC) 92-192 and 92-193 against DOS 1500-1 and DOS 1600-01 were implemented on April 24, 1992. The changes made consisted of a caution to warn the operators of the potential LPCI minimum flow valve auto closure when cycling the M02(3)-1501-38A(B). Further investigation will be performed to investigate the root cause and a supplemental report will be submitted (249-200-92-06201).

Corrective actions concerning the ENS notification included the following items:

1. A single document defining the Dresden Station ENS phone notification policy shall be written and shall contain the information provided in Operations Department Policies No. 24 and 26, Operations Department Memorandum No. 21, and GLS letter 92-006. Action Completion recommended by June 30, 1992 (249-200-92-06202).
2. The additional guidance concerning the Dresden Station ENS phone notification policy shall be provided to the shift personnel through a special shift briefing by the Assistant Superintendent of Operations (249-200-92-06203).
3. A copy of the additional guidance concerning the Dresden Station ENS phone notification policy document shall be placed in the Red Phone Call Log Book (249-200-92-06204).

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 4 9	9	2	-	0	1	2	-	0	0	0 4	OF	0 5

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

4. EPIP 300-2 & 300-S8 shall be placed in the Red Phone Call Log Book and controlled as posted procedures. Material from DAP 2-8 should be removed from the log because it only represents the information provided in 10CFR50.72; whereas, the EIPs contain the 10CFR50.72 sections and comments on these sections (249-200-92-06205).
5. The implementation of the Tenara Reportable Event Decision System (TREDS) station specific program shall be tracked to completion (249-200-92-06206).
6. The Training Department shall revise their ENS training for initial license training and licensed operator continuing training. As result of this event, the following will be included in formal training (249-200-92-06207):
 - a. This event and previous 1991 & 1992 LERs concerning missed ENS notification due to not recognizing an ESF occurred.
 - b. Use and interpretation of NUREG 1022.
 - c. The reporting requirements of 10CFR50.72.
 - d. Available internal NRC guidance on what constitutes an ESF.
7. The Dresden Station ENS phone notification policy document training shall be included in and emphasized in future GSEP training (249-200-92-06208).
8. Reinforcement of the Dresden Station ENS phone notification policy and the definition of an ESF shall be communicated to all shifts through follow-up special shift briefings performed by the Assistant Superintendent of Operations or an Operating Engineer for a period of two six week cycles (249-200-92-06209).
9. The On-Site simulator training group shall review the event and associated corrective actions for incorporation into the simulator training conducted for licensed personnel (249-200-92-06210).

F. PREVIOUS OCCURENCES:

LER/Docket Numbers Title

12-2-91-26/050237 Unanticipated Valve Closures During 125 VDC Groud Checking Due to Procedure Deficiency.

While performing DOP 6900-06, 125 VDC Ground Detection, the LPCI minimum flow valve M02-1501-13A inadvertently closed due to loss of power in the circuit. Although the circuit design casues this closure on de-energization of power, DOP 6900-06 did not state this would occur.

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 4 9	9		2	-	0		1		2	-	0		0	0	0		5	OF	0		5

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

12-2-92-08/050237 Unanticipated Valve LPCI Minimum Flow Valve M02-1501-13B Closure Due to Spurious Master Trip Unit Spike During Calibration.

While performing Dresden Instrument Surveillance (DIS) 2300-3, High Pressure Coolant Injection Low Reactor Pressure Isolation Master Trip Unit (MTU) Calibration, the LPCI minimum flow valve, M02-1501-13B inadvertently closed due to spurious MTU spike.

G. COMPONENT FAILURE DATA:

This is not a component failure, therefore, this section is not applicable.