



Commonwealth Edison
Dresden Nuclear Power Station
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November 18, 1991

EDE LTR #91-703

U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555

Licensee Event Report #91-014, Docket #050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(i)(B).

L. J. Mermer for
E. D. Eenigenburg
Station Manager
Dresden Nuclear Power Station

EDE/dal

Enclosure

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

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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 5 0 0 0 2 4 9 Page (3) 1 of 0 4

Title (4) 3-1105A and 3-1105B SBLC Relief Valves Lifted Under the Acceptance Criteria Due to Setpoint Drift

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)	
10	22	91	91	014	00	11	07	91			

OPERATING MODE (9) N

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 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 in Abstract below and in Text)
<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
<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)	
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name: Mark Blakemore, Technical Staff System Engineer Ext. 2421

TELEPHONE NUMBER: AREA CODE 8 1 5 9 4 2 - 2 9 2 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
X	B	R R V	C 7 1 0	Y					

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 October 22, 1991 at 0900 hours with Unit 3 in the refuel mode with all fuel removed, Standby Liquid Control (SBLC) relief valves 3-1105A and 3-1105B opened at 1410 psig when tested during the performance of Dresden Maintenance Procedure (DMP) 1100-2, Standby Liquid Control Relief Valve Setting. This exceeded the Technical Specification limit of 1455 to 1545 psig. New relief valves were installed by the Mechanical Maintenance Department, and during subsequent testing the valves lifted within the Technical Specification limit. The cause of this event is relief valve setpoint drift.

While the SBLC relief valves were being tested per DMP 1100-2, the SBLC system was not required to be operable. The as-found relief valve settings would not have diverted SBLC flow from the reactor under design basis conditions with both pumps operating. In addition, the Control Rod Drive (CRD) hydraulic system was operable when required during the operating cycle prior to this event, and therefore was available for shutting down the reactor.

A previous event involving the Unit 3 SBLC relief valves was reported by LER 88-07/050249.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

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

D. SAFETY ANALYSIS OF EVENT:

The purpose of the relief valves is to prevent the overpressurization of the SBLC piping if there is a blockage in the line. The required 1275 psig discharge pressure of the SBLC pumps is less than 1410 psig, which would allow full flow of sodium pentaborate to be provided to the reactor under design basis conditions with both SBLC pumps operating. During the time the SBLC relief valves were being tested per DMP 1100-2, all fuel was removed from the reactor vessel, and thus the SBLC system was not required to be operable. In addition, the Control Rod Drive (CRD) [AA] system was operable during the operating cycle when required, and therefore was available for shutting down the reactor. For these reasons, the safety significance of this event was considered minimal.

E. CORRECTIVE ACTIONS:

The 3-1105A valve was replaced and adjusted with an "as left" popping pressure of 1520 psig. The 3-1105B valve was replaced and adjusted with an "as left" popping pressure of 1530 psig. The System Engineer and MMD are also reviewing DMP 1100-2 for potential improvements to more accurately pinpoint the necessary "as found" popping pressure and/or provide a narrower ideal setpoint band to prevent setpoint drift in excess of the Technical Specification requirements (249-200-91-08601).

F. PREVIOUS OCCURENCES:

Non-Reportable Title
Event Nos.

12-2-90-120 Standby Liquid Control Relief Valve 2-1105B Failure to Open at Required Pressure Due to Setpoint Drift.

On October 11, 1990 at 2200 hours with Unit 2 in the Shutdown mode, Standby Liquid Control (SBLC) relief valve 2-1105B failed to open within the existing Technical Specification limit of 1400-1490 psig during maintenance testing performed during the Unit 2 D2R12 Refueling Outage. The 2-1105B relief valve was tested on October 11, 1990 in accordance with Dresden Maintenance Procedure (DMP) 1100-2, Standby Liquid Control Relief Valve Testing and Setting. The "As Found" popping pressure for relief valve 2-1105B was 1550 psig. The root cause of this event was setpoint drift of the SBLC relief valve setting. The relief valve setpoint was readjusted by the MMD and subsequent testing verified that both valves lifted within the Technical Specification limit. Corrective action to prevent recurrence also included implementation of periodic monitoring of the accumulator pressures.

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

LER/Docket Number Title

88-07/050249 Standby Liquid Control Relief Valves Failed To Open Due to Solidification Of Sodium Pentaborate Solution

On April 11, 1988 with Unit 3 in the refuel mode, the 3A and 3B relief valves failed to open within the Technical Specification limit of 1400-1490 psig while performing DMP 1100-2. The cause of the event was attributed to valve blockage as a result of solidification of the sodium pentaborate solution. The relief valves were reset to 1480 psig and the valves were successfully tested per DMP 1100-2. Corrective action to prevent recurrence included revision of DMP 1100-2 to require prompt testing of the relief valves upon removal to prevent boron solidification.

G. COMPONENT FAILURE DATA:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>Mfg. Part Number</u>
Crosby Valve and Gauge Co.	Relief Valve	JMWK	N/A

An industry wide Nuclear Plant Reliability Data System (NPRDS) data base search revealed no similar occurrences with this model number.