

LICENSEE EVENT REPORT (LER)

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 3

TITLE (4) Emergency Core Cooling System Initiation Indicating Switches Out of Calibration Due to Instrument 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)											
0	6	17	8	8	0	1	6	0	0	7	15	8	8	N/A	0	5	0	0	0		
														N/A	0	5	0	0	0		

OPERATING MODE (9) N

POWER LEVEL (10) 0 8 9

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
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)	X 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: Scott Briley, Technical Staff Engineer Ext. 526

TELEPHONE NUMBER: AREA CODE 8 1 | 5 | 9 | 4 | 2 | - | 2 | 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	J	E	L	I	S	Y	Q	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 June 17, 1988 at 0530 hours during normal Unit 2 operation at 89% rated core thermal power, Dresden Instrument Surveillance (DIS) 500-3, Reactor Vessel Low Water Level ECCS Initiation Indicating Switch Calibration and Functional Test, was performed. Level Indicating Switches 2-263-72A and 2-263-72B were found to trip outside of Technical Specification Table 3.2.2 requirements.

An inspection of these switches revealed no abnormalities. The cause of this event has been attributed to instrument drift. The cause of the instrument drift is unknown. The corrective action was to immediately adjust the Level Indicating Switches to within the ideal trip setpoint limits in accordance with DIS 500-3. An investigation is currently being performed to evaluate the replacement of the switches with more reliable units. The Level Indicating Switches will continue to be tested and calibrated on a monthly basis. There have been several previous occurrences of these switches being found outside their required setpoints. These occurrences were also attributed to instrument drift.

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TEXT

PLANT AND SYSTEM IDENTIFICATION

General Electric Boiling Water Reactor - 2527 MWt rated core thermal power. Energy Industry Identification System (EIS) codes are identified in the text as [XX].

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

EVENT IDENTIFICATIONS:

Reactor Vessel Water Level Emergency Core Cooling System (ECCS) Initiation Level Indicating Switches [JE] Out of Calibration Due to Instrument Drift.

A. CONDITIONS PRIOR TO EVENT

Unit: 2 Event Date: June 17, 1988 Event Time: 0530

Reactor Mode: N Mode Name: Run Power Level: 89%

Reactor Coolant System (RCS) Pressure: 987 psig

B. DESCRIPTION OF EVENT

On June 17, 1988 at 0530 hours during normal Unit 2 operation at 89% rated core thermal power, Dresden Instrument Surveillance (DIS) 500-3, Reactor Vessel Low Water Level ECCS Initiation Indicating Switch Calibration and Functional Test, was performed. Level Indicating Switch (LIS) 2-263-72A contacts (5-6) and (7-8) were found to trip at 111.2 inches of water differential pressure. LIS 2-263-72B contacts (5-6) and (7-8) were found to trip at 110.4 inches of water differential pressure. This is contrary to Technical Specification Table 3.2.2 that requires the switches to trip at 84 +4, -0 inches above the top of active fuel which corresponds to a range of 114.5 to 111.7 inches of water differential pressure. The ideal trip setting is 112.7 +1, -1 inch of water differential pressure. The Level Indicating Switches were immediately adjusted to within ideal trip setpoint limits. LIS 2-263-72A contacts (5-6) and (7-8) were left at 111.9 and 112.5 inches of water differential pressure respectively. LIS 2-263-72B contacts (5-6) and (7-8) were both left at 112.4 inches of water differential pressure.

C. APPARENT CAUSE OF EVENT

This report is being submitted in accordance with 10CFR50.73(a)(2)(i)(B), which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications.

An inspection of the Level Indicating Switches revealed no abnormalities. The cause of the event has been attributed to instrument drift; however, the cause of the instrument drift is unknown.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT

D. SAFETY ANALYSIS OF EVENT

The medium range reactor Level Indicating Switches 2-263-72A thru D have a range of -60 to +60 inches as referenced to instrument zero. Instrument zero is located 143 inches above the top of active fuel. These Level Indicating Switches provide a low low reactor water level signal to the Emergency Core Cooling Systems (ECCS). The safety significance of this event was minimal as the switches drifted in the conservative direction and the redundant switch in each ECCS initiation logic channel was operable at all times. Had an actual low low water level event occurred, the system would have functioned as designed.

E. CORRECTIVE ACTIONS

The corrective action was to immediately adjust the Level Indicating Switches to within the ideal setpoint limits. Action Item Record (AIR) 12-86-32 is currently being reviewed to determine the cost effectiveness of replacing the Yarway Level Indicating Switches with a more reliable type switch (237-200-88-07701). The 2-263-72 Level Indicating Switches will continue to be tested and calibrated on a monthly basis in accordance with DIS 500-3.

F. PREVIOUS EVENTS

<u>DVR Number</u>	<u>Title</u>
12-2-86-114	Reactor Vessel Low Low Water Level ECCS Initiation Switch (LIS 2-263-72D) Setpoint Drift
12-2-86-18	Reactor Vessel Low Low Water Level ECCS Initiation Switch Setpoint Drift

The setpoints were adjusted within limits and AIR 12-86-32 was issued.

G. COMPONENT FAILURE DATA

Manufacturer: Yarway Corporation

Nomenclature: Level Indicating Switch

Model Number: 4418C

MFG Part Number: N/A

An NPRDS data base search revealed numerous occurrences of this type in the industry.



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

July 15, 1988

EDE LTR #88-521

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

Licensee Event Report #88-016-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(i)(B).

E.D. Eenigenburg
Station Manager
Dresden Nuclear Power Station

EDE/ade

Enclosure

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

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