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10 CFR 50.73

March 19, 2002

PSLTR: #02-0018

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Dresden Nuclear Power Station, Unit 2
Facility Operating License No. DPR-19
NRC Docket No. 50-237

Subject: Licensee Event Report 2002-001-00, "Unit 2 Isolation Condenser Time Delay Relay Surveillance Failures Due to Setpoint Tolerances Specified with No Margin."

Enclosed is Licensee Event Report 2002-001-00, "Unit 2 Isolation Condenser Time Delay Relay Surveillance Failures Due to Setpoint Tolerances Specified with No Margin," for the Dresden Nuclear Power Station (DNPS). This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications."

Corrective Actions to be taken:

Revise Calculation NED-I-EIC-0098, specifying adequate margins to limits, and issue setpoint change.

Revise Calculation NED-I-EIC-0098, specifying the use of chart recorders.

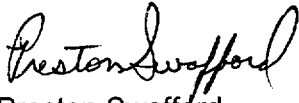
Revise procedure DIS 1300-01 per the revision of NED-I-EIC-0098.

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If you have any questions, please contact Bob Rybak, Regulatory Assurance Manager at (815) 416-2800.

Respectfully,

A handwritten signature in black ink, appearing to read "Preston Swafford". The signature is written in a cursive style with a large, looping initial "P".

Preston Swafford
Site Vice President
Dresden Nuclear Power Station

Enclosure

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station

1. FACILITY NAME Dresden Nuclear Power Station Unit 2	2. DOCKET NUMBER 05000237	3. PAGE 1 of 3
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4. TITLE Unit 2 Isolation Condenser Time Delay Relay Surveillance Failures Due to Setpoint Tolerances Specified with No Margin

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	18	2002	2002	001	00	03	19	2002	N/A	N/A
									FACILITY NAME	DOCKET NUMBER
									N/A	N/A

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)				
	20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)	
10. POWER LEVEL 095	20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)	
	20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)	
	20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)	OTHER Specify in Abstract below or in NRC Form 366A
	20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)		
	20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)		
	20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)		
	20.2203(a)(2)(v)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(vii)		
	20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)		
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)			

12. LICENSEE CONTACT FOR THIS LER

NAME Timothy P. Heisterman	TELEPHONE NUMBER (Include Area Code) (815) 416-2815
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE		
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO		MONTH	DAY	YEAR

16. ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On January 18, 2002, at 2135 hours, during the performance of quarterly Technical Specification (TS) surveillance procedure, DIS 1300-01, "Sustained High Reactor Pressure Calibration", Revision 12, three of the four Isolation Condenser (IC) [BL] time delay relays were found to exceed their TS Allowable Values (AV). The TS AV is ≤ 15 seconds. The as-found values of the relays were found to be at 15.6 seconds, 15.4 seconds, 15.4 seconds, 14.8 seconds for relays 2-595-117A, 2-595-117B, 2-595-117C and 2-595-117D, respectively.

The root cause was determined to be an inadequate setpoint calculation. This calculation allowed the settings to remain at the Technical Specification limit, which did not allow margin for drift. As a result, the IC automatic initiation circuitry would have been delayed by 0.4 seconds. A review of the General Electric (GE) analysis for IC initiation indicated significant safety margin. Evaluation of the actual pressure setpoints determined that the IC would have automatically initiated and provided its safety function for any time delay relay setting below 24.4 seconds. Safety function would have been delayed, not lost. Therefore, the safety significance of this event is minimal.

NRC FORM 366A U.S. NUCLEAR REGULATORY COMMISSION (7-2001) LICENSEE EVENT REPORT (LER) TEXT CONTINUATION		APPROVED BY OMB NO. 3150-0104 EXPIRES 07/31/2004 Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the information and Records Management Branch (t-6 f33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office Of Management And Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.	
FACILITY NAME (1) Dresden Nuclear Power Station Unit 2		DOCKET NUMBER (2) 05000237	
		LER NUMBER (6)	
		YEAR 2002	SEQUENTIAL NUMBER 001
		REVISION NUMBER 00	PAGE (3) 2 of 3

(If more space is required, use additional copies of NRC Form 366A)(17)

A. Plant Conditions Prior to Event:

Unit: 02	Event Date: 01-18-2002	Event Time: 2135 CST
Reactor Mode: 1	Mode Name: Run	Power Level: 95 percent
Reactor Coolant System Pressure: 1004 psig		

B. Description of Event:

At the time of this event, with conservative decision making, the event was reported under the requirements of 10 CFR 50.72(b)(3)(v), "Any event or condition that at the time of discovery could have prevented the fulfillment of the safety function of structures or systems that are needed to: (A) Shut down the reactor and maintain it in a safe shutdown condition; (B) Remove residual heat; (C) Control the release of radioactive material; or (D) Mitigate the consequences of an accident." Upon further evaluation, it was determined that the Isolation Condenser (IC) would have performed its intended safety function. The GE analysis for IC initiation assumes that the IC automatic initiation pressure setpoints are at their worst case settings when determining the time delay relay limitations. Nuclear Fuel Management evaluated the actual pressure setpoints and determined that the IC would have automatically initiated and provided its safety function for any time delay relay setting below 24.4 seconds. Therefore, this event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) "Any operation or condition which was prohibited by the plant's Technical Specifications."

To support Extended Power Uprate (EPU), GE re-evaluated the Transient Analyses for Dresden station. GE's analysis specified changes to the IC initiation time delay setpoints. The AV for the IC time delay relays changed from ≤ 17 seconds to ≤ 15 seconds. Calculation NED-I-EIC-0098 was revised to reflect these more restrictive EPU requirements.

During the development of the Technical Specification (TS) AV, historical concerns existed regarding the existing IC time delay relays ability to maintain the setpoint over time. Therefore, new relays were procured. Instrument Maintenance Department (IMD) during D2R17 (October 2001) replaced the time delay relays. During post maintenance testing which included field calibration, IMD personnel found and left the relay setpoints high (two at 14 seconds and two at 15 seconds), but within the "As Left" limitations (13 +/- 2 seconds) of the calibration procedure, DIS 1300-01 and calculation, NED-I-EIC-0098.

On December 21, 2001, Technical Specification Amendment 191 was implemented, lowering the IC initiation time delay limit from ≤ 17 seconds to the EPU limit of ≤ 15 seconds.

On January 18, 2002, at 1920 hours, IMD personnel performed IC instrumentation calibrations per procedure DIS 1300-01 as required by the TS surveillance requirements (SR) 3.3.5.2.3.

IMD reported that three of the four Isolation Condenser (IC) time delay relays were found outside of TS SR 3.3.5.2.3 AV. The "As Found" values for the time delay relays were: 15.6 seconds for relay 2-595-117A; 15.4 seconds for relay 2-595-117B; 15.4 seconds for relay 2-595-117C and 14.8 seconds for relay 2-595-117D. At 2140 hours, IMD completed DIS 1300-01 quarterly TS surveillance on the IC time delay relays, returning all of the relay calibrations to within TS requirements.

NRC FORM 366A U.S. NUCLEAR REGULATORY COMMISSION (7-2001)		APPROVED BY OMB NO. 3150-0104 EXPIRES 07/31/2004 Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the information and Records Management Branch (t-6 f33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office Of Management And Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.	
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION			
FACILITY NAME (1)		DOCKET NUMBER (2)	
Dresden Nuclear Power Station Unit 2		05000237	
		LER NUMBER (6)	
		YEAR	SEQUENTIAL NUMBER
		2002	001
		REVISION NUMBER	
		00	
		PAGE (3)	
		3 of 3	

(If more space is required, use additional copies of NRC Form 366A)(17)

At 2213 hours, IMD personnel generated a condition report for the time delay relays being out of TS tolerance. At 2347 hours, Operations made the Emergency Notification System (ENS) – 8-hour notification to the NRC per 10 CFR 50.72(b)(3)(v)(B), for Isolation Condenser Relays found out of tolerance and informed the NRC Resident.

C. Cause of Event:

The root cause of the event was determined to be an inadequate setpoint calculation. The calculation specified an "As Left" tolerance with upper bound limits equal to the Technical Specification Allowable Value. (NRC Cause Code D). Contributing cause to this event include: The calculation allows the use of a stopwatch for determining the as found time delay relay values, IMD and engineering personnel expressed varying standards and expectations, and corporate and station engineering personnel allowed non-conservative decision making. (NRC Cause Code E)

D. Safety Analysis:

The Isolation Condenser time delay setting is limited to minimize inventory loss during Safety and Relief valve actuations on loss of both feedwater and normal heat sink with HPCI inoperable. The GE analysis assumes that the IC automatic initiation pressure setpoints are at their worst case settings when determining the time delay relay limitations. The IC automatic initiation would have been delayed by 0.4 seconds from the GE assumptions. Nuclear Fuel Management evaluated the actual pressure setpoints and determined that the IC would have automatically initiated and provided its safety function for any time delay relay setting below 24.4 seconds. Safety function would have been delayed, not lost. Therefore, the safety significance of this event is minimal.

E. Corrective Actions:

Recalibrated all four time delay relays 2-595-117A, B, C, and D to within technical specification and near the setpoint.

Reinforced IMD and engineering personnel on the expectations regarding "As Left" values and the need to generate a CR when the condition is questionable, regardless of procedure or other documentation.

Revise Calculation NED-I-EIC-0098, specifying adequate margins to limits, and issue setpoint change. (ATI - 91401-12)

Revise Calculation NED-I-EIC-0098, specifying the use of chart recorders. (ATI 91401-14)

Revise procedure DIS 1300-01 per the revision of NED-I-EIC-0098. (ATI 91401-15)

F. Previous Occurrences:

A review was conducted via a search of previous events of this type. No previous events of this type were found.

G. Component Failure Data:

N/A