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10 CFR 50.73

December 20, 2001

PSLTR: #01-0130

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 2001-004-00, "Unit 2 Torus High Water Level Switches failed Technical Specification calibration surveillance due to historical poor Post Modification Testing and overly conservative Technical Specification Allowable Value."

Enclosed is Licensee Event Report 2001-004-00, "Unit 2 Torus High Water Level Switches failed Technical Specification calibration surveillance due to historical poor Post Modification Testing and overly conservative Technical Specification Allowable Value," for the Dresden Nuclear Power Station (DNPS). This event is being reported in accordance with 10 CFR 50.73 (a)(2)(i)(B), which requires the reporting of any operation or condition, which was prohibited by the plant's Technical Specifications.

The following actions were taken:

The setpoint calculation was revised to change the existing setpoint.

The existing modification process was evaluated to ensure adequate measures were in place to prevent recurrence of this type of event.

Performed a modification to lower the Torus High Water level switches due to failed surveillance test.

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Any other actions described in the submittal represent intended or planned actions by DNPS. They are described for the NRC's information and are not regulatory commitments.

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

Respectfully,

Preston Swafford
Site Vice President
Dresden Nuclear Power Station

Enclosure

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

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Dresden Nuclear Power Station Unit 2	05000237	1 OF 3

4. TITLE Unit 2 Torus High Water Level Switches failed calibration surveillance due to historical poor Post Modification Testing and overly conservative Technical Specification Allowable Value

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
									N/A	N/A
10	21	2001	2001	– 004 –	00	12	20	2001	FACILITY NAME: N/A	DOCKET NUMBER: N/A

9. OPERATING MODE	5
10. POWER LEVEL	000

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)	
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)	
20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER	
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A	
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	TELEPHONE NUMBER (Include Area Code)
Timothy P. Heisterman	(815) 416-2815

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

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

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

On October 21, 2001 during the performance of surveillance testing for the Torus high water level switches, the "As Found" condition of both Unit 2 Torus high water level switches were outside of the Technical Specification (TS) Allowable Value (AV). The Torus high water level switches automatically realign the High-Pressure Coolant Injection (HPCI) system suction to the Torus. The risk to the station was minimal, as the switches would have operated below the limits for safety relief valve operation specified in the General Electric calculations.

The setpoints for these switches were configured by a modification in 1985. This modification did not test the effect of the modification on the setpoints. Post Modification Testing (PMT) issues were historical in nature. The modification process has undergone a significant change since 1985. Current standards and procedures mandate that PMT be performed on all potentially affected portions of the station, when a modification is implemented.

The root cause of the event was determined to be historically poor PMT and an overly conservative Technical Specification (TS) Allowable Value (AV). Corrective actions included revising calculations to incorporate a new setpoint for increased margin and implementation of a plant modification.

A. Plant Conditions Prior to Event:

Unit: 02 Event Date: 10-21-2001 Event Time: 0500
Reactor Mode: 1 Mode Name: Refueling Power Level: 0 percent
Reactor Coolant System Pressure: 0 psig

B. Description of Event:

This event is being reported in accordance with 10 CFR 50.73 (a)(2)(i)(B), which requires the reporting of any operation or condition, which was prohibited by the plant's Technical Specifications.

On August 15, 1968, drawings were released which initially established the Torus High Level Switches setpoints for Dresden units 2 and 3. A modification was performed on May 29 1985, which installed new Narrow Range Torus Water Level instrumentation. When this modification was completed, the unit 2 switches' setpoints were both left at an undetermined level. The 1985 modification had no requirement to perform Post Modification Testing (PMT) of the Torus High Water Level Switches.

During the Improved Technical Specification (ITS) development process, on January 12, 2000, site personnel noted that Current Technical Specification (CTS) 3/4.2.B-1.3.d allowed </= 15 feet-5 inches for the Torus High Water Level switches. The TS required a monthly Channel Functional Test (CFT). However, TS states that a channel calibration was "N/A". Channel calibration was "N/A" because the switches were not adjustable. Also, as mechanical devices, these Magnetrol float level switches do not experience drift. Therefore, there has never been a verification that the switch actuates at or below the TS Allowable Value (AV). Operability of the Torus High Level swap of the HPCI Suction to Torus function was supported as all TS requirements were being met. The CFT verified that the instrument performed its safety function.

On July 28, 2000, calculation DRE00-0032, "HPCI Suppression Pool Level Setpoint Error Analysis", was issued to support the ITS conversion. It assumed the Analytical Limit to be 15 feet-8.25 inches and established the TS AV at 15 feet-5.625 inches with the Setpoint at 15 feet-5 inches, the setting tolerance at +/- 0.5 inches, the extended tolerance at +/- 0.5 inches, and the CAL Frequency at 24-months. The assumed AL of 15 feet - 8.25 inches, which was overly conservative based on the original construction design specification calculation, resulting in an overly conservative TS AV. In retrospect, the Standard Improved Technical Specification Basis for this function is to prevent damage to the Suppression Pool (Torus) during Safety/Relief Valve operation. Other calculations, DRE 98-0155 and DRE 98-0135, state that the limit for Safety/Relief Valve operation during accident conditions is 18 feet-6 inches. This Analytical Limit (AL) supported the existing field setpoints, shown in the design drawings. Therefore, DRE00-0032 was approved with the 15 feet - 8.25 inches AL assumption.

On September 9, 2000, an ITS submittal was made for NRC approval with DRE00-0032's new 24-month CHANNEL CALIBRATION requirement for the Torus High Water Level switches and increased TS 3.3.5.1-1 (formerly 3/4.2.B-1.3.d) function 3.e Allowable Value of </= 15 feet-5.625 inches. As such, it required NRC approval to implement. NRC approval was obtained for the new surveillance, which was required to be performed within the frequency of 24 months following implementation.

On October 21, 2001 the Instrument Maintenance Department (IMD) performed SR 3.3.5.1.5, 24-month calibration for the first time on unit 2, which was approximately six months following implementation of ITS. HPCI

On October 21, 2001 the Instrument Maintenance Department (IMD) performed SR 3.3.5.1.5, 24-month calibration for the first time on unit 2, which was approximately six months following implementation of ITS. HPCI Torus High Level Switches 2-2351-A and 2-2351-B failed. Switch 2-2351-A and B initially and repeatedly tested at 15 feet-6.0 inches, 0.375 inches above the TS AV.

Design Engineering issued a modification package to change the Unit 2 HPCI Torus High Level Switches 2-2351-A and 2-2351-B piping configuration and setpoints. The modification was implemented on November 2, 2001 and successfully tested on November 4, 2001. IMD repeatedly tested the switches at 15 feet – 3.375 inches, 2.25 inches below the TS AV. This successfully completed SR 3.3.5.1.5, 24-month calibration of the Torus High Water Level Switches. Due to the modification performed on the Torus high water level switches and setpoint calculation revision, station personnel determined that a License Amendment was not required. Additionally, the Unit 3 switches were verified to be within acceptable ranges during there surveillance testing.

C. Cause of Event:

The root cause of the event was determined to be historically poor Post Modification Testing and an overly conservative Technical Specification Allowable Value.

D. Safety Analysis:

The overly conservative analytical limit is assumed to be 15 feet – 8.25 inches resulting in a corresponding overly conservative allowable value of 15 feet – 5.625 inches. These values are to protect the Torus from excessive loading from safety relief valve operation that may exist during accident conditions. The maximum as found setting of 15 feet – 6.0 inches is below the analytical limit of 18 feet – 6 inches as determined by General Electric calculations. Based on the as-found setting of 15 feet – 6.0 inches, the HPCI swap to the Torus would have been accomplished without compromising the safety of the public or the station. Therefore the safety significance of this event is minimal.

E. Corrective Actions:

The calculation was revised to change the existing setpoint.

The existing modification process was evaluated to ensure adequate measures were in place to prevent recurrence of this type of event.

The maintenance department performed a modification to lower the Torus High Water level switches due to failed surveillance test.

F. Previous Occurrences:

A review was conducted via a search of previous condition reports generated. No previous occurrences were identified associated with this type of event.

G. Component Failure Data:

N/A