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Dresden Nuclear Power Station
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10 CFR 50.73

September 28, 2001

PSLTR: #01-0106

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

Dresden Nuclear Power Station, Unit 3
Facility Operating License No. DPR-25
NRC Docket No. 50-249

Subject: Licensee Event Report 2001-001-01, "Supplement to High Flow Differential Pressure Switches Outside Of Technical Specification Limits"

Enclosed is Licensee Event Report 2001-001-01, "Supplement to High Flow Differential Pressure Switches Outside Of Technical Specification Limits," for the Dresden Nuclear Power Station (DNPS). This condition is being reported pursuant to 10 CFR 50.73 (a)(2)(i)(B), which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications.

The following actions were taken:

The differential pressure switches were calibrated to meet the Technical Specification surveillance requirements.

The Unit 2 and Unit 3 quarterly surveillances for the switch were revised to be performed monthly.

This correspondence contains the following new commitment:

Revise the associated setpoint calculations to account for the observed drift for the Unit 2 and Unit 3 Isolation Condenser condensate return high flow switches.

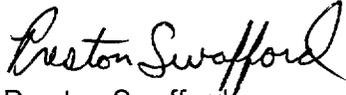
Any other actions described in the submittal represent intended or planned actions by DNPS. They are described for the NRC's information and are not regulatory commitments.

IE22

U.S. Nuclear Regulatory Commission
September 28, 2001
Page 2

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

Respectfully,

A handwritten signature in black ink that reads "Preston Swafford". The signature is written in a cursive style with a large, prominent 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

LICENSEE EVENT REPORT (LER)

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 3

DOCKET NUMBER (2)

05000249

PAGE (3)

1 of 3

TITLE (4)

Supplement to High Flow Differential Pressure Switches Outside Of Technical Specification Limits

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MON TH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	09	2001	2001	001	01	09	28	2001	N/A	N/A
									N/A	N/A

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)								
1	100		20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)	
			20.2203(a)(l)		20.2203(a)(3)(l)		50.73(a)(2)(ii)		50.73(a)(2)(x)	
			20.2203(a)(2)(l)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
			20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)			
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			

LICENSEE CONTACT FOR THIS LER (12)

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

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i. e., approximately 15 single-spaced typewritten lines) (16)

On January 9, 2001, during the performance of a Technical Specification (TS) Surveillance, "Unit 3 Isolation Condenser Steam/Condensate Line High Flow Calibration," both condensate return line high flow switches were found outside TS limits.

Two differential pressure indicating switches are installed on the steam supply line and two differential pressure switches are installed on the condensate return line to automatically isolate the Isolation Condenser in the event of a line break. A trip signal from the four differential pressure switches will close motor-operated valves and isolate the Isolation Condenser from the reactor pressure vessel.

The root cause of the event was determined to be that the installed switches on the Isolation Condenser condensate return lines exhibit unacceptable setpoint drift due to the current Technical Specification Surveillance Requirements being overly conservative.

The corrective action to prevent recurrence is to revise the associated setpoint calculations to account for the observed drift for the Unit 2 and Unit 3 ISCO condensate line high flow switches.

Immediate corrective actions included calibration of the switches to meet the TS surveillance acceptance criteria.

The isolation function provided by the pressure switches was not lost; therefore, the safety significance of this event is minimal.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Dresden Nuclear Power Station, Unit 3	05000249	2001	001	01	2 OF 3

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

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] and are obtained from IEEE Standard 805-1984, IEEE Recommended Practice for System Identification in Nuclear Power Plants and Related Facilities.

EVENT IDENTIFICATION:

High Flow Differential Pressure Switches Outside Of Technical Specification Limits

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 3	Event Date: 01-09-2001	Event Time: 0436
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 100%
Reactor Coolant System Pressure: 1000 psig		

B. DESCRIPTION OF EVENT:

This condition is being reported pursuant to 10 CFR 50.73 (a)(2)(i)(B), which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications. This event was also reported via the Emergency Notification System (ENS) in accordance with 10 CFR 50.72(b)(2)(ii), any event or condition that alone could have prevented the fulfillment of a safety function. Since the continued availability of the redundant trip functions from both positive and negative input functions were operable, the loss of the two individual trips did not result in a loss of safety function as defined in 50.72(b)(2)(ii) and therefore the ENS report was not required.

On January 9, 2001, during the performance of a TS Surveillance, "Unit 3 Isolation Condenser Steam/Condensate Line High Flow Calibration", both condensate return line high flow switches were found outside TS limits.

The isolation condenser [BL] return flow signals are initiated from two differential pressure switches. Two channels are available and are required to be operable to ensure that no single instrument failure can prevent the isolation function from occurring. On DNPS Unit 3, the flow sensing elements on the condensate line consist of annubar flow elements. The annubar flow elements measure flow in a straight section of the line between the 3-1301-3 and 3-1301-4 valves. The design of the instruments requires a high condensate flow contact in both the inboard and outboard isolation logic channels. For the inboard logic trip system, the 3-1349A switch and the 3-1349B switch are used to measure the condensate flow. Switch 3-1349A has two contacts, one for measuring flow in the positive direction (i.e., towards the reactor) and one for measuring flow in the negative direction (i.e., away from the reactor). Either switch contact causes the 3-595-115A relay to de-energize resulting in an Isolation Condenser isolation. On January 9, 2001, the negative flow input trip setpoint was found above the TS trip setpoint of 14.8 inches of water. Switch 3-1349B also has two contacts, one for measuring flow in the positive direction and one for measuring flow in the negative direction. Either switch contact causes the 3-595-116A relay to de-energize resulting in an Isolation Condenser isolation. On January 9, 2001, the positive flow input trip was found above the TS trip setpoint of 14.8 inches of water. As a result, 1 negative trip input on one switch and 1 positive trip input on the other switch were above the TS trip setpoint for initiating an isolation.

TS Table 3.2.A.1, functional units 5a and b, "Isolation Condenser Isolation" require a minimum of one operable channel per trip system for both steam flow and return flow high. With the condition described above, this requirement was not met. The occurrence of multiple failures (i.e., two switches) indicates that this condition likely

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Dresden Nuclear Power Station, Unit 3	05000249	YEAR 2001	SEQUENTIAL NUMBER 001	REVISION NUMBER 01	3 OF 3

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

existed prior to the time of discovery. Therefore this event is being reported as a condition prohibited by the plant's Technical Specifications. However, with the remaining operable positive trip from the 3-1349A and the remaining operable negative trip input from the 3-1349B switch, the isolation of the Isolation Condenser would have occurred for a line break on either side of the annubar.

C. CAUSE OF EVENT:

The root cause of this event was determined to be that the switches installed on the Isolation Condenser condensate return lines exhibit unacceptable setpoint drift. A review of the bases for the current Technical Specification requirements was performed. This review determined that the current requirements are overly conservative. The evaluation further revealed that the analytical limit that was used in our current set-point calculations could be increased with no increased adverse safety consequences.

D. SAFETY ANALYSIS

Although the minimum number of required channels per trip system were not operable, the redundant trip functions from both the positive and negative flow inputs were operable. The loss of the two individual trips did not result in a loss of safety function and would have allowed the isolation to occur. Based upon this evaluation, the safety significance of this event has been determined to be minimal.

E. CORRECTIVE ACTIONS:

The switches were calibrated to within the TS surveillance requirements. (Complete)

The Unit 2 and Unit 3 quarterly surveillances for the switch were revised to be performed monthly. (Complete)

Revise the associated setpoint calculations to account for the observed drift for the Unit 2 and Unit 3 ISCO condensate line high flow switches. (ATI 42013-30))

F. PREVIOUS OCCURRENCES:

None

G. COMPONENT FAILURE DATA:

None