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Exelon Nuclear

10 CFR 50.73

SVPLTR # 08-0034

June 16, 2008

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

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

Subject: Licensee Event Report 237/2008-002-00, "Unit 2 High Pressure Coolant Injection System Declared Inoperable"

Enclosed is Licensee Event Report 237/2008-002-00, "Unit 2 High Pressure Coolant Injection System Declared Inoperable," for Dresden Nuclear Power Station Unit 2. This event is being reported in accordance with 10 CFR 50.73(a)(2)(v)(D), "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident."

There are no Regulatory Commitments in this report. Should you have any questions concerning this report, please contact Mr. Bob Rybak, Acting Regulatory Assurance Manager, at (815) 416-2800.

Respectfully,

Timothy K Hanley for

David B. Wozniak
Site Vice President
Dresden Nuclear Power Station

Enclosure

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

IE22
NRR

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 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)

(See reverse for required number of digits/characters for each block)

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4. TITLE

Unit 2 High Pressure Coolant Injection System Declared Inoperable

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									N/A	N/A
04	15	2008	2008	- 002 -	00	06	16	2008	FACILITY NAME N/A	DOCKET NUMBER N/A

9. OPERATING MODE

2

10. POWER LEVEL

99

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☒ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Dresden Nuclear Power Station – Patrick D. Quealy.	(815) 416-4833

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
X	BG	FIK	Yokagawa Corp.	Y	N/A				

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On April 15, 2008 at 0700 hours (CDT), with Unit 2 at approximately 99 percent power Dresden Nuclear Power Station (DNPS) personnel declared the Unit 2 High Pressure Coolant Injection (HPCI) inoperable due to the Flow Indicating Controller failing to 60 percent output demand from the expected 100 % while in Standby Mode of operation. Technical Specification 3.5.1.F was entered with the Isolation Condenser (IC) being verified operable. The controller failure was discovered by Control Room Operators performing hourly panel checks of panel indications. The controller output demand was observed lower than expected and the HPCI Motor Gear Unit was observed below the High Speed Stop. On April 16, 2008 a spare re-configured, calibrated controller was installed and at HPCI was declared operable 1213 hours following the successful HPCI fast start test.

The Apparent Cause of this event is age degradation of the controller's internal power supply. The examination of the controller identified the failed power supply had failed due to aged electrolytic capacitors. An extent of condition review identified that there are twelve similar type controllers in use at DNPS. Actions have been taken to schedule replacement of these controllers prior to the currently scheduled 2010 replacement.

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NARRATIVE

Dresden Nuclear Power Station (DNPS) Unit 2 is a General Electric Company Boiling Water Reactors with a licensed maximum power level of 2957 megawatts thermal.

A. Plant Conditions Prior to Event:

Unit: 02 Event Date: 04-15-2008
Reactor Mode: 1 Mode Name: Power Operation Power Level: 99 percent
Reactor Coolant System Pressure: Approximately 998 psig

B. Description of Event:

On 04-15-08 at 0700 hours, Unit 2 HPCI was declared inoperable due to the HPCI FIC 2-2340-1 failing to 60 percent output demand from the expected 100 percent while in Standby Mode of operation. Technical Specification LCO 3.5.1.F (14 day) was entered with the Isolation Condenser (IC) being verified operable. On Line Risk changed from Green to Yellow. Controller failure was discovered by Control Room Operators performing hourly panel checks of panel indications. The controller output demand was observed lower than expected and the HPCI Motor Gear Unit (MGU) was observed below the High Speed Stop (HSS). The MGU normally resides at the HSS since it is fed by the controller output at 100 %.

On 04-15-08 at 1455 hours, controller troubleshooting began by the Instrument Maintenance Department (IMD). The controller side display indicated message "PWR ERR". This message occurs with either a low supply voltage or problems with the controller internal power supply. Since the supply voltage was normal, the controller internal power supply was identified as degraded. This condition prevented the controller from being placed into Manual Mode and prevented the controller parameters from being extracted for use in a replacement controller. On 04-16-08 at 0130 hours, a spare re-configured, calibrated controller was installed and at 1213 hours following the successful HPCI fast start test, HPCI was declared operable and the LCO was exited.
Additionally, HPCI would have functioned as expected following the controller replacement at 0130 hours at which time HPCI became available with On Line Risk changing back to Green.

C. Cause of Event:

The Apparent Cause of this event is age degradation of the Model SLPC-271 Yokogawa controller's internal power supply. The examination of the failed controller identified the power supply had failed from aged electrolytic capacitors. An extent of condition review identified that there are twelve similar type controllers in use at DNPS. Actions have been taken to schedule replacement of these controllers prior to the currently scheduled 2010 replacement.

A review determined that the majority of these controllers were installed in the 1990 to 1992 timeframe. This review identified two previous controller power supply failures. One of these failures was in 2006 resulting in replacement of the controller with a refurbished unit. The second was in 2005 resulting in replacement of the controller with a refurbished unit. Based on these results, DNPS will schedule the remaining nine controllers PM due dates prior to the originally scheduled 2010 date.

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NARRATIVE

D. Safety Analysis:

The safety significance of the event is minimal. TS 3.5.1 allows Unit 2 to remain at power for 14 days with an inoperable HPCI if the IC is operable. Unit 2 was in compliance with TS 3.5.1 during this event as the IC was operable and HPCI was inoperable for approximately 1 day. Therefore, the consequences of this event had minimal impact on the health and safety of the public and reactor safety.

E. Corrective Actions:

The corrective actions to prevent recurrence of this event are:

DNPS will schedule PM refurbishments for the remaining nine controllers prior to the originally scheduled PM due dates of 2010 (Complete)

F. Previous Occurrences:

A review of DNPS LERs for the last three years did not identify any LERs associated with controller failures attributed to age degradation of a power supply.

G. Component Failure Data:

NA