

Exelon Generation Company, LLC
Dresden Nuclear Power Station
6500 North Dresden Road
Morris, IL 60450-9765

www.exeloncorp.com

10 CFR 50.73

SVPLTR # 11-0012

March 16, 2011

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

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

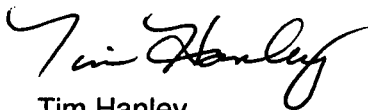
Subject: Licensee Event Report 249/2011-001-00, Control Rod Block
Instrumentation Failure

Enclosed is Licensee Event Report 249/2011-001-00, Control Rod Block
Instrumentation Failure. This event is being reported in accordance with 10 CFR
50.73(a)(2)(i)(B), Any operation or condition which was prohibited the plant's Technical
Specifications.

There are no regulatory commitments contained in this submittal.

Should you have any questions concerning this letter, please contact Mr. Dennis Leggett at
(815) 416-2800.

Respectfully,



Tim Hanley
Site Vice President
Dresden Nuclear Power Station

Enclosure

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

JED2
MRR

LICENSEE EVENT REPORT (LER)

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

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 FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@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.

1. FACILITY NAME Dresden Nuclear Power Station, Unit 3	2. DOCKET NUMBER 05000249	3. PAGE 1 OF 3
--	-------------------------------------	--------------------------

4. TITLE
Control Rod Block Instrumentation Failure

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
01	15	2011	2011	001	00	03	16	2011	N/A	05000
									FACILITY NAME	DOCKET NUMBER
									N/A	05000

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)									
10. POWER LEVEL 100	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)						
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)						
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)						
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)						
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)						
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)						
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)						
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

12. LICENSEE CONTACT FOR THIS LER

NAME Bob Rybak – Regulatory Specialist	TELEPHONE NUMBER (Include Area Code) 815-416-2810
---	--

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
X	JD	69	G080						

14. SUPPLEMENTAL REPORT EXPECTED <input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH 06	DAY 15	YEAR 2011
--	-------------------------------------	-------------	-----------	--------------

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

On January 15, 2011, during control rod exercising Technical Specifications surveillance testing on Dresden Nuclear Power Station, (DNPS) Unit 3, it was observed by control room personnel, that at times, the Rod Block Monitor (RBM) [JD] count circuit appeared to display too many local power range monitor (LPRM) [JD] inputs when a control rod having three LPRM strings was selected (a fourth LPRM string was included for control rod drives (CRDs) that apply three LPRM strings for signal determination). This situation was not present when a CRD was selected that had either two or four LPRM strings associated with it. Based on the information at the time, the crew determined that the RBM remained operable to meet Tech Spec function.

However, during troubleshooting of these RBM anomalies associated with CRDs with three associated LPRM string assignments, it was determined on January 21, 2011, that both RBM trains were inoperable and a channel was placed in trip due to a failed circuit card diode which allowed the RBM count circuit to be non-conservative. The failed card was replaced on January 21, 2011 and the system returned to service.

The RBM upscale rod block is not credited in the analysis of a rod withdrawal error and therefore the safety significance of the failure of the relay card is minimal. Health and safety of the public was not compromised as a result of this condition.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE		
Dresden Nuclear Power Station, Unit 3	05000249	YEAR	SEQUENTIAL NUMBER	REV NO.	2	OF	3
		2011	- 001 -	00			

NARRATIVE

PLANT AND SYSTEM IDENTIFICATION

Dresden Nuclear Power Station (DNPS) Unit 3 is a General Electric Company Boiling Water Reactor with a licensed maximum power level of 2957 megawatts thermal. The Energy Industry Identification System codes used in the text are identified as [XX].

A. Plant Conditions Prior to Event:

Unit: 03	Event Date: 01-15-2011	Event Time: 1216 hours CST
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 100 percent

B. Description of Event:

On January 15, 2011, during Technical Specifications (TS) surveillance testing of the control rod exercising on Dresden Nuclear Power Station, (DNPS) Unit 3, it was observed by control room personnel, that at times, the rod block monitor (RBM) would indicate more local power range monitors (LPRMs) than expected.

The RBM count circuit appeared to not bypass LPRM inputs for some three LPRM string CRDs (a fourth LPRM string was included for several CRDs that apply three LPRM strings for signal determination). This situation was not present when a control rod was selected that had either two or four LPRM strings associated with it. Based on the information at the time, the crew determined that the RBM remained operable to meet the TS function.

However, during subsequent troubleshooting of the RBM anomalies associated with CRDs with three associated LPRM string assignments, it was determined on January 21, 2011, that both RBM trains were inoperable which required a channel be placed in trip to comply with TS 3.3.2.1.

The RBM is designed to monitor local power using two to four LPRM strings that are in the local area while a CRD is being withdrawn. The number of LPRM strings utilized is based on CRD location within the core. The RBM is required to be operable in MODE 1 when reactor thermal power is greater than or equal to 30 percent and no peripheral control rod is selected per TS 3.3.2.1. The design of the system is to block CRD withdrawal during a Rod Withdrawal Error (RWE) to prevent exceeding the minimum critical power ratio (MCPR) safety limit. The RBM function is not credited by the RWE analysis and therefore the safety significance is minimal.

C. Cause of Event:

A failed diode on a relay card for RBM 8 allowed LPRMs 48-17, 48-25, and 56-25 to be counted into the RBM circuitry along with the normally selected LPRMs for certain control rods that normally utilize only three LPRM strings. This rendered the RBM INOP count circuit non-conservative with extra LPRM inputs being detected on scale that should not have been counted. This problem was unique only to certain three LPRM string CRDs. A causal investigation will be performed to determine why operations personnel did not identify that the RBM was inoperable.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Dresden Nuclear Power Station, Unit 3	05000249	YEAR	SEQUENTIAL NUMBER	REV NO.	3 OF 3
		2011	- 001	- 00	

NARRATIVE

D. Safety Analysis:

The design of the RBM system is to block CRD withdrawal during a RWE to prevent exceeding the MCPR safety limit. Since the RBM upscale rod block is not credited in the analysis of a rod withdrawal error, the safety significance of the failure of the relay card is minimal. Therefore, health and safety of the public was not compromised as a result of this condition.

E. Corrective Actions:

- The failed relay card was replaced.
- A causal investigation will be performed to determine why operations personnel did not identify that the RBM was inoperable.

F. Previous Occurrences:

A review of DNPS Licensee Event Reports (LERs) for the last three years did not identify any LERs associated with control rod block inoperabilities or failures.

G. Component Failure Data:

Not Applicable