

Commonwealth Edison Company  
Dresden Generating Station  
6500 North Dresden Road  
Morris, IL 60450  
Tel 815-942-2920

10 CFR 50.73



October 18, 2000

PSLTR: #00-0150

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 2000-004-00, "Technical Specification Non Compliance due to Primary Containment Inboard and Outboard Feed Water Isolation Valves Exceeding Local Leak Rate Test Allowable Limits"

Enclosed is Licensee Event Report 2000-004-00, "Technical Specification Non Compliance due to Primary Containment Inboard and Outboard Feed Water Isolation Valves Exceeding Local Leak Rate Test Allowable Limits," for the Dresden Nuclear Power Station (DNPS). This condition is being reported pursuant to 10 CFR 50.73 (a)(2)(ii)(B), which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications.

Determination of the root cause for this event is in progress. A supplemental report will be submitted upon completion of the root cause determination. Both the inboard and outboard primary containment Feed Water valves described in this report were repaired and tested satisfactorily.

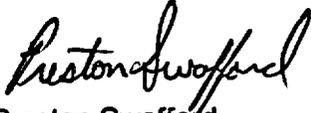
Any other actions described in the submittal represent intended or planned actions by DNPS. They are described for the NRC's information and are not regulatory commitments.

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If you have any questions, please contact Dale Ambler, Dresden Regulatory Assurance Manager at (815) 942-2920 extension, 3800.

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

**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-8 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.

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TITLE (4)  
**Technical Specification Non Compliance due to Primary Containment Inboard and Outboard Feed Water Isolation Valves Exceeding Local Leak Rate Test Allowable 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
09	18	2000	2000	004	00	10	18	2000	N/A	N/A
									N/A	N/A

OPERATING MODE (9) <b>5</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)										
		20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)			
POWER LEVEL (10) <b>0</b>		20.2203(a)(i)		20.2203(a)(3)(I)	X	50.73(a)(2)(ii)		50.73(a)(2)(x)			
		20.2203(a)(2)(i)		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	
		20.2203(a)(2)(iii)		50.36(c)(1)	X	50.73(a)(2)(v)				Specify in Abstract below or in NRC Form 368A	
		20.2203(a)(2)(iv)		50.36(c)(2)	X	50.73(a)(2)(vii)					

LICENSEE CONTACT FOR THIS LER (12)

NAME <b>Richard A. Kelly, Regulatory Assurance</b>	TELEPHONE NUMBER (include Area Code) <b>(815) 942-2920 Ext. 2924</b>
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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
X	SJ	ISV	C665	Y					

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X	YES		NO		02	16	2001

(If yes, complete EXPECTED SUBMISSION DATE).

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

On September 18, 2000, at 2230 hours, with Unit 3 shutdown for Refuel Outage D3R16, the Primary Containment Outboard Feedwater Check Valve 3-0220-62A failed the as found local leak rate test (LLRT) during performance of Dresden Operating Surveillance (DOS) 7000-26, "Local Leak Rate Testing Of Unit 2(3) Feedwater System Valves." Since this valve is paired in series with Inboard Feedwater Check Valve 3-0220-58A that also failed its LLRT, this placed the unit in a condition prohibited by the Technical Specifications. The safety significance of the leakage through the primary containment isolation valves is considered to be minimal. Both valves were inspected, repaired and tested satisfactorily prior to the completion of D3R16. The final determination of the failure mode of the valves is currently in-progress. A supplement will be submitted to report the final root cause of the valve failures and the corrective actions taken.

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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:**

Technical Specification Non Compliance due to Primary Containment Inboard and Outboard Feed Water Isolation Valves Exceeding Local Leak Rate Test Allowable Limits

**A. PLANT CONDITIONS PRIOR TO EVENT:**

Unit: 3	Event Date: 09-18-2000	Event Time: 22:30
Reactor Mode: 5	Mode Name: Refuel	Power Level: 0
Reactor Coolant System Pressure: 0 psig		

**B. DESCRIPTION OF EVENT:**

This LER is being submitted 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 (TS). In addition, this LER is also being submitted pursuant to 10 CFR 50.73(a)(2)(ii), 10 CFR 50.73(a)(2)(v), and 10 CFR 50.73(a)(2)(vii).

On September 18, 2000, at 2230 hours, with Unit 3 shutdown for Refuel Outage D3R16, the Primary Containment Outboard Feedwater [SJ] Check Valve 3-0220-62A failed the as found local leak rate test (LLRT) during performance of Dresden Operating Surveillance (DOS) 7000-26, "Local Leak Rate Testing Of Unit 2(3) Feedwater System Valves." The amount of leakage for the 62A valve was found to be undetermined based upon the amount of leakage identified exceeding the capabilities of the LLRT equipment utilized during the performance of the test. Since this valve is paired in series with Inboard Feedwater Check Valve 3-0220-58A that also failed its LLRT with an undetermined leakage rate, this placed the unit in a condition prohibited by the Technical Specifications. The total leakage between the two valves was undetermined resulting in the minimum path leakage exceeding the 0.6La.

Upon the discovery of the failures, the valves were disassembled and inspected. The results of these inspections were as follows:

The 3-0220-58A valve has had a history of failure during previous LLRTs. The valve was previously changed from a 4 clamp o-ring style assembly to an 18-bolt gasket style assembly to improve performance. When the valve was opened, it was discovered that there was a minimum 0.002-inch gap between the seats from the 9:00 to 3:00 positions with a maximum 0.003-inch gap identified from about the 12:00 to 1:00 positions.

The 3-0220-62A has not had a history of LLRT failures. Upon disassembly, the gap between the valve seats was found to be less than 0.0015 inches in all areas. Gaps this small result in a successful LLRT. There were some scratches noticed on the seats, but it could not be determined if these scratches were of sufficient size to result in an indeterminate leak test. This valve is an o-ring style assembly with 4 clamps. The clamps at the 9:00 and 3:00 positions were found to be loose. The clamps at the 12:00 and 6:00 positions were found to be tight. Upon removal of the seat assembly, the o-ring was found in good condition with no sign of leakage.

The valves were repaired and tested with satisfactory results.

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

**C. CAUSE OF EVENT:**

The cause of the excessive leakage for the valves is unknown at this time. A supplemental report will be submitted upon completion of the root cause determination.

**D. SAFETY ANALYSIS**

Based on the results found during the internal inspections of these valves, the safety significance of the LLRT failures is considered to be minimal based upon the following discussion.

Both the inboard and outboard primary containment feed water check valves were internally inspected after the as-found LLRTs were found to be undetermined. The LLRT equipment is capable of reading up to 100 scfh. Thus, an undetermined amount of leakage is any leakage greater than 100 scfh. Upon disassembly, both of the check valves were found to be in the closed position. Each valve was exercised by lifting the disc by hand. Both check valves stroked smoothly with no indication of binding. The inboard check valve did have a 0.003-inch gap between the seats at the 12:00 to 1:00 positions. This size of gap typically allows a significant amount of leakage. The outboard check valve had a gap between the valve seats that was found to be less than 0.0015 inches in all areas. Based on prior testing at Dresden Nuclear Power Station, a 0.001-inch leak may exceed 100 scfh but is not expected to exceed La leakage. Preliminary calculations performed on a gap of this size also support a leakage of approximately one-half of La. The outboard check valve did have scratches on the seating surfaces but they were small and are not believed to add significantly to the estimated leakage. No other leakage paths were found for either of these check valves.

Any changes to the safety significance, if any, will be reported in the supplemental report that will be submitted upon completion of the root cause determination.

**E. CORRECTIVE ACTIONS:**

The 3-0220-58A valve was repaired utilizing a modification to install a new 20-bolt assembly with an o-ring style seat. The repaired valve successfully passed the LLRT. (Complete)

The 3-0220-62A valve seat assembly was replaced and tested satisfactorily. (Complete)

Determination of the root cause for the 3-0220-58A and 3-0220-62A valves is in progress. A supplemental report will be submitted upon completion of the root cause determination.

**F. PREVIOUS OCCURRENCES:**

LER/Docket Numbers

Title

98-004-00/05000237

Outboard Main Steam Line Isolation Valves 2-203-2B And 2-203-2D As-found Leakage Rates Exceeded Technical Specification Limit

98-004-01/05000237

Supplement to Outboard Main Steam Line Isolation Valves 2-203-2B And 2-203-2D As-found Leakage Rates Exceeded Technical Specification Limit

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

**G. COMPONENT FAILURE DATA:**

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>Mfg. Part Number</u>
Crane Co,	3A FW Header Inboard Drywell Check Valve	973	N/A
Crane Co.	3A FW Header Outboard Drywell Check Valve	973	N/A