

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 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.

FACILITY NAME (1) Dresden Nuclear Power Station, Unit 2	DOCKET NUMBER (2) 05000237	PAGE (3) 1 of 4
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TITLE (4)
Supplement to Outboard Main Steam Line Isolation Valves 2-203-2B And 2-203-2D As-found Leakage Rates Exceeded Technical Specification Limit

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	08	98	98	004	01	10	30	98	N/A	05000
									N/A	05000

OPERATING MODE (9) 5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)									
POWER LEVEL (10) 000	20.2201(b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)	50.73(a)(2)(viii)					
	20.2203(a)(2)(i)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)					
	20.405(a)(1)(ii)	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)		50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A					
	20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)						

LICENSEE CONTACT FOR THIS LER (12)

NAME A. Lintakas, Programs Engineer	TELEPHONE NUMBER (Include Area Code) (815) 942-2920 ext 2245
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	SB	ISV	C665	Y					

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

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

On March 8, 1998, with Unit 2 shutdown for Refuel Outage D2R15, the performance of Dresden Technical Surveillance (DTS) 0250-03, Main Steam Isolation Valve Local Leak Rate (Wet) Test, identified that the B and D Main Steam Isolation Valves (MSIVs) were each leaking 14.69 Standard cubic feet per hour (scfh). This leakage rate exceeds the limit specified in Technical Specification Surveillance Requirement 4.7.D.6, which limits the leakage past any MSIV to 11.5 scfh when tested with air at a pressure of 25 psig. The safety significance of the leakage past the two outboard MSIVs is considered to be minimal since the leakage was limited through the redundant inboard MSIVs. As found leakages for the redundant inboard MSIVs were 1.05 scfh for B and 4.08 scfh for D. This amount of leakage is well within the allowed leakage and would not cause the maximum off-site dose rates established in 10 CFR 100 to be exceeded. The cause of the excessive leakage of the 2-203-2B was determined to be due to normal wear on the seat and plug. The cause of the excessive leakage of the 2-203-2D is attributed to packing leakage. The valves were inspected, repaired and successfully Local Leak Rate Tested prior to being placed in service.

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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:

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

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 2	Event Date: 03-08-98	Event Time: 0400 CST
Reactor Mode: 5	Mode Name: Refuel	Power Level: 0
Reactor Coolant System Pressure: 0 psig		

No other equipment was inoperable or out of service that contributed to this event.

B. DESCRIPTION OF EVENT:

This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i) which requires the reporting of any operation or condition prohibited by the plant's Technical Specifications.

At approximately 0400, on March 8, 1998, with Unit 2 shutdown for Refueling Outage D2R15, personnel performed Dresden Technical Surveillance (DTS) 0250-03, Main Steam Isolation Valve Local Leak Rate (Wet) Test. DTS 0250-03 is performed by flooding the Reactor Vessel and the main steam lines up to the inboard Main Steam Isolation Valves (MSIVs) [SB]. The section of piping between the inboard and outboard MSIVs is then pressurized. The pressure exerted by the head of water on the inboard valves is greater than the LLRT test pressure and therefore leakage found during the test is attributed to the associated outboard MSIV.

Leakage tests identified that outboard MSIVs, 2-203-2B And 2-203-2D, were each leaking 14.69 standard cubic feet per hour (scfh). These leakage rates exceeded the limit specified in Technical Specification Surveillance Requirement 4.7.D.6, which limits the leakage past any MSIV to 11.5 scfh when tested with air at a pressure of 25 psig.

The Unit Supervisor was notified of the excessive leakage and Problem Identification Forms were initiated.

Subsequent testing of the redundant inboard valves, 2-203-1B And 2-203-1D, revealed that the B and D inboard MSIVs exhibited leakage of 1.05 and 4.08 scfh, respectively, which is well within the TS leakage limit.

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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 of the 2-203-2B was determined to be due to normal wear on the seat and plug. The cause of the excessive leakage of the 2-203-2D is attributed to packing leakage. The valves were inspected, repaired and successfully Local Leak Rate Tested prior to being placed in service. These events are unrelated and do not constitute a common failure. (NRC Cause Code X)

D. SAFETY ANALYSIS

The safety significance of the leakage past the two outboard MSIVs is considered to be minimal since the leakage was limited through the redundant inboard MSIVs. The observed leakage through the 2-203-1B and 2-203-1D was 1.05 and 4.08 scfh, respectively. As found leakage for the two redundant valves was well within the TS limit and would not cause the maximum off-site dose rates established in 10 CFR 100 to be exceeded.

E. CORRECTIVE ACTIONS:

The B Main Steam Isolation Valve was inspected, repaired and Local Leak Rate Tested prior to being placed in service. The final Local Rate Test result was 0.00 scfh. The repairs included disassembly and repair of the valve and actuator. The disassembly included re-packing the valve. (Complete)

The D Main Steam Isolation Valve was inspected, repaired and Local Leak Rate Tested prior to being placed in service. The final Local Rate Test result was 4.68 scfh. The repairs included disassembly and minor repair of the valve and actuator. The valve internals only required minor lapping of the seat. The disassembly included re-packing the valve and replacing the stem. (Complete)

This LER Supplement is being submitted which contains the cause of the MSIV LLRT failures, the repairs performed, and the results of the as-left LLRTs. An industry search was performed for similar valve failures. The results of that search do not contribute to the determination of the cause of the LLRT failures of these valves, nor to the corrective actions. These LLRT failures are unrelated and do not constitute a common failure. (Complete)

F. PREVIOUS OCCURRENCES:

<u>LER/Docket Numbers</u>	<u>Title</u>
95-015/0500237	Main Steam Line Isolation Valves 2-203-1A and 2-203-1C As-Found Leakage Rates Exceeded the Technical Specification Limit of 11.5 scfh
93-026/0500237	Main Steam Line Isolation Valves 2-203-2A and 2-203-1D As-Found Leakage Rates Exceeded the Technical Specification Limit of 11.5 scfh
93-003/0500237	Outboard Main Steam Line Isolation Valve 2-203-2A As Found Leakage Rate Exceeded the Technical Specification Limit of 11.5 scfh
90-009/0500237	Type B and C Primary Containment Local Leak Rate Test Requirements Exceeded Due to leaking Isolation Valves

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88-018/0500237

Leak Rate Limits Exceeded in Drywell Head Seal and MSIV 2-203-1D Tests
Due to Misalignment and Seat Wear

G. COMPONENT FAILURE DATA:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>Mfg. Part Number</u>
Crane Co.	Main Steam Isol. Valve	DR34289-20" 2-0203-2DY Pattern Globe Valve	N/A