

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 2 Docket Number (2) 0 5 10 10 10 12 13 17 Page (3) 1 of 0 3

Title (4) HPCI Minimum Flow Valve M02-2301-14 Inoperable Due to Moisture Intrusion into the Motor Operator

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 Names	Docket Number(s)									
0	4	0	7	8	9	8	9	0	5	10	10	10	12	13	17	1	of	0	3
										N/A									
										N/A									

OPERATING MODE (9) N

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> Other (Specify
<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	in Abstract
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	below and in
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	Text)

LICENSEE CONTACT FOR THIS LER (12)

Name: Jerry F. Lizalek, Technical Staff Engineer Ext. 2421

TELEPHONE NUMBER: AREA CODE 8 1 5 9 4 2 1 - 2 19 12 10

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		
X	B	J	X	X	3	9	R	1	6	5	Y

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) Month | Day | Year

Yes (If yes, complete EXPECTED SUBMISSION DATE)  NO

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

At 1035 hours on April 7, 1989, with Unit 2 operating at 95% rated core thermal power, while performing Special Procedure (SP) 89-3-38, Quarterly Valve Timing Reference Valve Testing, the High Pressure Coolant Injection (HPCI) minimum flow motor operated valve, M02-2301-14, failed to open. The Nuclear Station Operator (NSO) immediately dispatched the High Voltage Operator (HVO) to the M02-2301-14 valve breaker and it was determined that the valve tripped due to a thermal overload condition. The HPCI System was declared inoperable at 1035 hours and Unit 2 entered a seven day Limiting Condition for Operation (LCO) as specified by Technical Specification 3.5.C.2. The root cause was determined to be moisture intrusion into the motor windings as a result of ceiling/foundation leakage. The moisture was removed and the motor was subsequently reinstalled. A leakage collecting funnel was installed to reroute leakage to the normal floor drain system. Additionally, the area responsible for the leakage has been scheduled for repair. The safety significance of this event was minimal since automatic initiation of the HPCI System would not have been prevented by an inoperable minimum flow valve. Additionally, the Automatic Depressurization System (ADS) and Low Pressure Emergency Core Cooling Systems (ECCS) were available for reactor pressure and inventory control during postulated design basis accident conditions. A previous event involving an inoperable HPCI System was reported by LER 89-011-00/050237.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

speed and flow, occurs in approximately ten seconds. After reaching rated speed and flow, HPCI injection into the reactor vessel commences. The HPCI pump would be in a dead-headed condition for approximately ten seconds, and would not impact continued operation of the HPCI System.

The HPCI minimum flow valve was repaired and returned to service at 2033 hours on April 7, 1989. In addition, the Isolation Condenser [BL], Automatic Depressurization System (ADS) [SB] and Low Pressure Emergency Core Cooling Systems (ECCS) [BM, BO] were available to provide reactor pressure and inventory control during any postulated design basis accident (DBA). For these reasons the safety significance of this event is considered minimal.

E. CORRECTIVE ACTIONS:

A Problem Analysis Data Sheet (PADS) was performed to evaluate the root cause and establish adequate corrective actions. The root cause was identified and the following corrective actions were established.

A review of work request history revealed that maintenance on the M02-2301-14 valve was last performed on February 7, 1989 under the direction of Work Request 71533. The motor was meggered and winding resistances were found acceptable.

During this event, under the direction of Work Request 83919, the motor was again meggered and resistances were found unacceptable as a result of to the moisture intrusion. The motor was removed and dried by passing warm air over the windings. The motor was subsequently meggered and motor resistance was found to be acceptable. Additionally, a current signature was performed and also found to be acceptable. In order to prevent this event from recurring the ceiling/foundation leakage has been scheduled for repair (237-200-89-06701). The motor will be painted in order to seal any minute points of moisture entry (237-200-89-06702), and a drain funnel has been temporarily installed to reroute all leakage to the normal floor drains.

F. PREVIOUS OCCURRENCES:

<u>LER Number/Docket</u>	<u>Title</u>
89-011/050237	HPCI Gland Seal Leakoff Condenser Drain Pump Failure Due to Degraded Motor Starting Circuit Capacitor.
	The HPCI System was declared inoperable as a result of the inability to trip the GSLO drain pump. Starting capacitor was found failed. The capacitor was replaced and the HPCI System returned to an operable condition.

G. COMPONENT FAILURE DATA:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>Mfg. Part Number</u>
Reliance	250 Vdc Electric Motor	N/A	N/A

Since this failure was not component induced but due to ceiling/foundation leakage, an NPRDS search was not performed.



**Commonwealth Edison**

Dresden Nuclear Power Station

R.R. #1

Morris, Illinois 60450

Telephone 815/942-2920

May 4, 1989

EDE LTR #89-366

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Licensee Event Report #89-014-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(v).

E.D. Eenigenburg  
Station Manager  
Dresden Nuclear Power Station

EDE/ade

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III  
File/NRC  
File/Numerical

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