

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 2	Docket Number (2) 0 15 10 10 10 2 13 17	Page (3) 1 of 0 4
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Title (4)  
Inadvertant Injection of Emergency Core Cooling Systems Into the Reactor Vessel Due to a Leaking Test Valve

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	2	0 8 9	0 8 9	0 0 5	0 0	0	3	0 17 8 9	N/A	0 15 10 10 10 1 1	
									N/A	0 15 10 10 10 1 1	

OPERATING MODE (9) POWER LEVEL (10) 0 0 0	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 checked="" 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 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 in Abstract below and in Text)
		<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)	
		<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)	
		<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name Scott Briley, Technical Staff Engineer	Ext. 2526	TELEPHONE NUMBER AREA CODE 8 1 5 9 4 2 - 2 9 2 10
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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	J	E	T V	P	0 7 10	N					

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> Yes (If yes, complete EXPECTED SUBMISSION DATE)	X	NO
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On February 5, 1989 with Unit 2 in the Shutdown mode, preparations were being made to perform Dresden Operating Surveillance (DOS) 6600-6, Bus Undervoltage and ECCS Integrated Functional Test for Unit 2/3 Diesel Generator. DOS 6600-6 requires that a simulated drywell high pressure signal be generated during the surveillance. This is accomplished by a pneumatic test rig attached to two drywell pressure switches. At 1754 hours, an inadvertant simulated drywell high pressure signal caused the drywell high pressure, Core Spray and Low Pressure Coolant Injection (LPCI) System timers running alarms to annunciate. The Unit 2 and 2/3 Diesel Generators, 2C and 2D LPCI pumps and the 2B Core Spray pump auto started. The reactor vessel water level increased from 138 to 178 inches prior to the pumps being secured. The cause of this event was due to a leak in the test rig inlet valve. This allowed the drywell pressure switches to be pressurized when the vent valve was inadvertently closed. The immediate corrective action was to stop injection. The drywell high pressure signal was removed from the pressure switches and all systems were returned to their normal lineups. As a long term corrective action, a new test rig will be built with labels to indicate valve positions. In addition, DOS 6600-6 will be revised to test the rig prior to use and to require that the instrument air supply root valve remains closed until it is required. A review of past LERs has revealed no previous occurrences of this type.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	///	Sequential Number	///	Revision Number				
Dresden Nuclear Power Station	0   5   0   0   0   2   3   7	8   9	-	0   0   5	-	0   0	0   3	OF	0   4	

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

The test rig used to simulate drywell high pressure consists of an inlet valve, a pressure regulator set to 5 psig and a vent valve, as shown in Figure 1. The cause of the event was due to a leak in the test rig inlet valve. This leak allowed the pressure switches to be pressurized to 5 psig when the vent valve was inadvertently closed. The vent valve was originally open. However, during a valve lineup verification, an Operations Department Shift Foreman believed that the vent valve was closed. The Shift Foreman picked up the test rig and found the vent valve to be just short of full travel. The Shift Foreman completed the vent valve's travel and noticed a slight increase in pressure on the test gauge. He believed the valve to now be fully closed so he turned the vent valve in the opposite direction and observed the test gauge pressure drop to zero. The Shift Foreman verified that the pressure stayed at zero and then left the area to continue his duties. Within ten minutes the testing rig pressurized and exceeded the 2 psig setpoint on the pressure switches resulting in the inadvertant ECCS initiation.

D. SAFETY ANALYSIS OF EVENT:

The purpose of the 2 psig drywell high pressure switches is to actuate and initiate the Diesel Generators and the Emergency Core Cooling Systems (ECCS) as an anticipatory action in order to mitigate the consequences of a Loss of Coolant Accident (LOCA). Although the 2C LPCI pump, 2D LPCI pump and the 2B Core Spray pump were placed in pull-to-lock to prevent flooding the reactor, they remained available to perform their function since a Nuclear Station Operator (NSO) remained at the pump controls until the initiation logic was reset and the pump control switches were returned to normal. The injected water remained in the reactor vessel and the vessel temperature remained above the 100°F limit as required by Technical Specification 3.6.B.2 which requires that the vessel shell immediately below the vessel flange remain greater than or equal to 100°F when the reactor vessel head bolting studs are under tension. Since all equipment operated as designed, the safety significance of this event is minimal.

E. CORRECTIVE ACTIONS:

The immediate corrective action was to stop injection into the vessel by placing the control switches for the 2C LPCI pump, 2D LPCI pump and the 2B Core Spray pump in pull-to-lock. The 5 psig signal was then removed from PS2-1632A and PS2-1632C and the system logic was reset. Finally, all systems were returned to their normal lineups. As a long term corrective action, a new test rig will be fabricated to be used for undervoltage testing (237-200-89-02301). The test rig will have labels to indicate the open and close direction of the valves. In addition, DOS 6600-6 will be revised to require that the test rig be tested prior to installation (237-200-89-02302). DOS 6600-6 will also be revised to require that the instrument air supply isolation valve remain closed until the test assembly is required (237-200-89-02303). This event will be reviewed during the Licensed Operator Continuing Training Program (237-200-89-02304).

F. PREVIOUS EVENTS:

A review of past LERs has revealed no previous occurrences of this type.

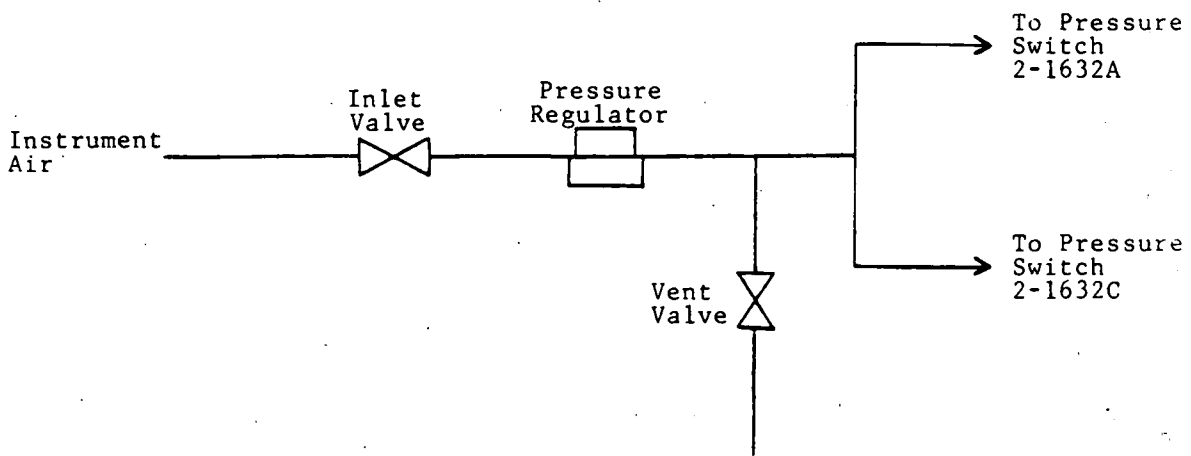
G. COMPONENT FAILURE DATA:

Manufacturer	Nomenclature	Model Number	MFG Part Number
Parker Hannifin Corp.	Test Valve	457A	N/A

As this failure is not reportable to NPRDS, an industry wide NPRDS search was not performed.

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HIGH DRYWELL PRESSURE TEST RIG

Figure 1



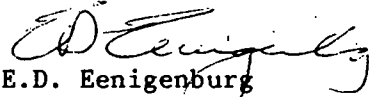
**Commonwealth Edison**  
Dresden Nuclear Power Station  
R.R. #1  
Morris, Illinois 60450  
Telephone 815/942-2920

March 7, 1989

EDE LTR #89-184

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

Licensee Event Report #89-005-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(iv).

  
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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