

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 2 13 17 Page (3) 1 of 0 3

Title (4) Unplanned Group V Primary Containment Isolation During Surveillance Testing Due to Spurious Isolation Signal

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 9	8 9	0 0 9	0 0	0	3	1 0	N/A	0 5 10 10 10 1 1		
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OPERATING MODE (9) N

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

20.402(b)	20.405(c)	X	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)		50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)		50.73(a)(2)(vii)	Other (Specify in Abstract below and in Text)
20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name: Michael E. Moy, Technical Staff Engineer Ext. 2354

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

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

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 fifteen single-space typewritten lines) (16)

At 2300 hours on February 9, 1989 with Unit 2 shutdown for a scheduled refueling outage, a Group V Primary Containment Isolation occurred, isolating the Isolation Condenser from the reactor vessel. The event occurred concurrent with the performance of an Isolation Condenser instrument flow check valve surveillance. Upon initiation of the Group V Primary Containment Isolation signal, all associated isolation valves operated as designed. No other systems or components which may have contributed to this event were inoperable at the time of this event. The cause of the unexpected Group V Primary Containment Isolation was determined to be a spurious isolation signal possibly occurring during valving operations at an Isolation Condenser instrument rack while performing the instrument surveillance. The safety significance of this event was considered minimal since the Nuclear Station Operator (NSO) promptly responded by verifying that the Group V Primary Containment Isolation was spurious, resetting the isolation signal and returning the isolation valves to their normal positions. The event was reviewed with those personnel directly involved, and will be reviewed with all Station personnel. A previous similar event was reported by LER 87-014 on Docket 050249.

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

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2527 Mwt rated core thermal power.

Nuclear Tracking System (NTS) tracking code numbers are identified in the text as (XXX-XXX-XX-XXXXX).

EVENT IDENTIFICATION:

Unexpected Group V Primary Containment [JM] Isolation During Surveillance Testing Due to Spurious Isolation Signal.

A. CONDITIONS PRIOR TO EVENT:

Unit: 2    Event Date: February 9, 1989    Event Time: 1326 hours

Reactor Mode: N    Mode Name: Shutdown    Power Level: 0%

Reactor Coolant System Pressure: 600 psig

B. EVENT DESCRIPTION:

At 2300 hours, on February 9, 1989 with Unit 2 shutdown for a scheduled refueling outage, a spurious Group V Primary Containment Isolation occurred, isolating the Isolation Condenser [BL] from the reactor vessel [AC]. The isolation occurred during the performance of Dresden Instrument Surveillance (DIS) 500-4, Reactor Process Instrument Line Flow Check Valve Operational Test. Upon initiation of the Group V Primary Containment Isolation signal all associated valves operated as designed. Although reactor pressure was at approximately 600 psig in preparation for a reactor vessel hydrostatic test, all control rods were fully inserted with the mode switch in Shutdown at the time of this event. As there was neither steam flow or condensate flow in the Isolation Condenser piping, the Group V Primary Containment Isolation was immediately reset and all associated valves were returned to their normal positions. No other systems or components which may have contributed to this event were inoperable at the time of this event. The 10CFR50.72(b)(2)(ii) notification required within four hours following any unplanned Engineered Safety Feature (ESF) actuation was not initially performed due to miscommunication. Upon a detailed review of DIS 500-4, it was determined that the Group V Primary Containment Isolation was in fact unplanned and reportable even though it occurred during surveillance testing prior to declaring the Isolation Condenser operationally ready for reactor startup. The 10CFR50.72(b)(2)(ii) notification was then made at 0904 hours on February 10, 1989.

C. APPARENT CAUSE OF EVENT:

A Group V Primary Containment Isolation signal is generated by differential pressure indicating switches which monitor the differential pressure across flow elements in the Isolation Condenser steam supply and condensate return lines. The trip setpoint corresponds to three times normal flow across the flow element. A three times normal flow condition would be indicative of a line break in the Isolation Condenser piping. The associated differential pressure indicating switches are located on instrument rack 2-2202-28. At the time of this event DIS 500-4 was in progress, which involved valving operations at instrument rack 2-2202-28. DIS 500-4 involves both the measuring of instrument line flow check valve flow rates and the backfilling of the same lines prior to placing the instruments back into service. Discussion with Instrument Maintenance Department personnel revealed that they were not aware of the

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

Group V Primary Containment Isolation initiation and did not observe any instrument spikes while at the instrument rack. It has been hypothesized that either an air bubble entrained in the differential pressure indicating switch sensing line may have caused an inadvertent differential pressure during instrument backfill or that the instrumentation at the rack was inadvertently jarred. However, Instrument Maintenance Department personnel performed DIS 500-4 with strict adherence to procedural instructions and cautions and did not recall inadvertently jarring any instrumentation. Another possible cause considered was minor through leakage and/or inadvertent incomplete closure of the instrument isolation and/or equalizing valves.

The cause of the delay in completing the 10CFR50.72(b)(2)(ii) notification was attributed to a miscommunication and misinterpretation of the reporting requirement by the Operations Department Shift Supervisory personnel. The misintrepaton resulted in the initial determination that the event was not reportable as it had occurred during surveillance testing, prior to declaring the Isolation Condenser operationally ready for reactor startup following the refueling outage.

D. SAFETY ANALYSIS OF EVENT:

The purpose of the Isolation Condenser is to control reactor pressure and/or remove decay heat from the reactor without loss of inventory during periods when the normal heat sink is unavailable. The Isolation Condenser can be manually or automatically initiated. An automatic initiation occurs when reactor pressure is sustained at greater than or equal to 1070 psig for 15 seconds. The Group V Primary Containment Isolation described in this report occurred with Unit 2 in the shutdown mode during a refueling outage. The Nuclear Station Operator promptly responded by verifying the isolation signal was spurious resetting the isolation and returning the isolation valves to the normal positions. Although reactor pressure had been increased to 600 psig via heating boiler steam and the Shutdown Cooling System heat exchangers, both the High Pressure Coolant Injection (HPCI) System [BJ] and the Automatic Depressure System [SB] were available to provide reactor pressure and/or inventory control had this event occurred under power operation. The Low Pressure Coolant Injection [BO] and Core Spray [BM] Systems were also available.

E. CORRECTIVE ACTIONS:

This event was reviewed with the Instrument Maintenance Department personnel involved in order to emphasize the potential for unplanned ESF actuations during surveillance testing. This report will also be reviewed in a future tailgate session with all Station personnel (237-200-89-03601). Additionally, this event will be included in the Licensed Operator continuing training program in order to review the need for prompt reporting of all unplanned ESF actuations in accordance with 10CFR50.72 (237-200-89-03602).

F. PREVIOUS EVENTS:

LER/Docket Number Title

87-014/050249 Isolation Condenser Group V Isolation Due to Spurious Tripping of the High Condensate Flow Instrumentation.

86-018/050249 Spurious Group V Containment Isolation Due to Design Deficiency.

Both of the above events were caused by differential pressure spikes generated by an annular flow instrument. The corrective action was to install a two second time delay in the isolation circuitry.

G. COMPONENT FAILURE DATA:

There were no component failures during this event; therefore, this section is not applicable.



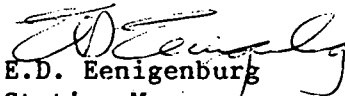
**Commonwealth Edison**  
Dresden Nuclear Power Station  
R.R. #1  
Morris, Illinois 60450  
Telephone 815/942-2920

March 10, 1989

EDE LTR #89-223

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

Licensee Event Report #89-009-0, 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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