



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

March 29, 1993

CWS PMLTR 93-0131

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

Licensee Event Report 93-009, Docket 050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(ii).

Charles W. Schroeder for 4-1-93

Charles W. Schroeder
Station Manager
Dresden Station

CWS/slb

cc: A. Bert Davis, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

(p:\plntmgr\cws93\0131.93)

9304060037 930326
PDR ADOCK 05000237
S PDR

JEJ

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) HPCI Steam Piping Found Outside FSAR Design Limits Due to Absence of Grout in the HPCI Steam Line Floor Penetration			

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 3	0 2	9 3	9 3	0 0 9	0 0	0 3	2 6	9 3			

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 type="checkbox"/> 50.73(a)(2)(iv)
		<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"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)
		<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 checked="" 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)
				<input type="checkbox"/> 73.71(b)
				<input type="checkbox"/> 73.71(c)
				<input type="checkbox"/> Other (Specify in Abstract below and in Text)

LICENSEE CONTACT FOR THIS LER (12)										
Name Gary Thompson, Cognizant Engineer							TELEPHONE NUMBER			
							AREA CODE			
							8 1 5	9 4 2 - 2 9 2 10		
Ext. 2850										

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 1330 hours on March 2, 1993, with Unit 2 shutdown and in the refuel mode, an engineering evaluation was completed that determined that the Unit 2 HPCI (BJ) steam line piping was operable but outside the Final Safety Analysis Report (FSAR) design limits. This evaluation was initiated as a result of an engineering walkdown of the HPCI steam line that called into question whether the HPCI steam line floor penetration was grouted (as analyzed for under IE Bulletin 79-14) or not. While the piping analysis was being performed for the postulated scenario of an ungrouted penetration, a work request was initiated to remove the insulation from the penetration in order to determine if it was grouted or not. The inspection showed the penetration indeed was not grouted creating a discrepancy between the analyzed and the as-built configurations. The engineering evaluation was completed showing that the HPCI piping was outside its design basis limits but was operable. A Problem Identification Form (PIF) was generated to document the discrepancy. The Nuclear Engineering Department confirmed through walkdowns that this problem did not exist on Unit 3 and recommended that the Unit 2 penetration be grouted prior to startup of Unit 2. This action is being implemented during the present D2R13 refuel outage. The safety significance of this event is minimal since the HPCI piping meets operability requirements. There has been one previous occurrence involving a 79-14 issue in which systems were discovered outside of design allowables.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

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	9 3	- 0 0 9	- 0 0	0 2	OF	0 3

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:

HPCI Steam Piping Found Outside FSAR Design Limits Due to Absence of Grout in the HPCI Steam Line Floor Penetration

A. Conditions Prior to Event:

Unit: 2 Event Date: March 2, 1993 Event Time: 1330
 Reactor Mode: N Mode Name: Refuel Power Level: 0
 Reactor Coolant System (RCS) Pressure: 0 psig

B. Description of Event:

At 1330 hours on March 2, 1993, with Unit 2 shutdown and in the refuel mode, an evaluation performed by the Nuclear Engineering Department (NED) determined that the HPCI main Steam Line piping was operable but outside the Final Safety Analysis (FSAR) design limits. The HPCI piping analysis was performed as the result of an engineering walkdown, during which markings were discovered on the wall in the HPCI steam tunnel near HPCI steam line piping support M-11510-132, indicating that the piping support may have caused these markings as a result of movement of the HPCI steam line. This was thought not to be possible since the HPCI steam line floor penetration just downstream of the piping support was believed to be a grouted penetration as described in the IE Bulletin 79-14 piping analysis. A work request was issued to remove the insulation surrounding the penetration in question to determine if it was grouted or not. In parallel with this, NED initiated an operability evaluation for the HPCI steam piping under the postulated scenario of the penetration not being grouted. Inspection of the penetration showed that indeed it was not grouted. The evaluation was completed by NED at 1330 on March 2, 1993, showing that Unit 2 HPCI steam line piping was outside its FSAR limits but was operable. On March 8, 1993, engineering recommendations were made to grout the penetration prior to Unit 2 startup. A walkdown for Unit 3 was performed and it was found that there was not a similar penetration for Unit 3.

C. Apparent Cause of Event:

This report is submitted in accordance with 10CFR50.73(a)(2)(ii), which requires the reporting of any condition that is outside the design basis of the plant, due to the HPCI steam line piping being found outside FSAR design limits.

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	9 3	-	0 0 9	-	0 0	0 3	OF	0 3	

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

The apparent cause of the HPCI steam line penetration deficiency was an inaccurate piping analysis since the penetration was incorrectly considered to be a grouted penetration. The root cause of this event was personnel error. In response to IE Bulletin 79-14, NRC Letter Transmitting NUREG 0531 Investigation and Evaluation of Stress Corrosion and Cracking of Light Water Reactor Plants, the HPCI Steam Line piping was reanalyzed. As input to this analysis, the Unit 2 HPCI steam line floor penetration was incorrectly recorded as a grouted penetration during the 79-14 walkdowns. This is a unique penetration in that it is insulated (and therefore cannot be observed unless the insulation is removed) and is not contained on any plant structural drawings. As a result, this error could not be identified until the penetration had been called into question and the insulation removed. The error was input into the 79-14 analysis and became part of the FSAR design limits. NED has determined that the improper piping analysis does not meet 10CFR Part 21 criteria since it has been determined that this was an isolated case and an operability concern or safety hazard is not present. The penetration requires no maintenance and thus maintenance history did not factor in this analysis.

D. Safety Analysis of Event:

The HPCI steam line penetration is part of the HPCI steam line and the HPCI system. Analysis has shown that although the penetration resulted in the piping being outside its FSAR design basis limits, the HPCI system has been determined to be operable and capable of performing all its design functions. As a result, the safety of the public and the plant was not affected by this event.

E. Corrective Actions:

The immediate corrective action taken was for NED to evaluate the HPCI steam line piping for operability and determine if the unanalyzed as-built configuration fell within the FSAR design limits. Additionally, a walkdown of Unit 3 HPCI piping found that there was no similar penetration on Unit 3. The human error associated with this was the incorrect recording of the penetration as being grouted. Since the time of the 79-14 walkdowns, station work practices and training have been improved, and formal walkdown procedures (ENC-QE-62) have been established to prevent errors of this nature from occurring. The results of the NED HPCI piping analysis showing that the piping was outside its FSAR design limits led to a review of long term corrective action. The HPCI steam line floor penetration will be grouted during the present D2R13 refueling outage (237-180-93-00901).

F. Previous Occurrences:

The following occurrences involved other 79-14 issues in which systems were found outside of Design Allowables.

LER/Docket Numbers Title

92-029/0500237 Bellows at Primary Containment Penetration X-125 Found Outside FSAR Design Limits Due to Project Instruction Deficiencies

G. Component Failure Data:

A component failure did not occur during this event.