



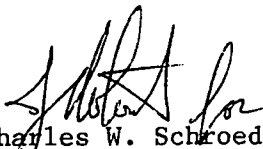
Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

September 18, 1992

CWS LTR #92-760

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

Licensee Event Report 92-29, Docket 050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(ii)(B).


Charles W. Schroeder
Station Manager
Dresden Nuclear Power Station

CWS/jmt

Enclosure

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

(ZDVR/760)

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Handwritten initials/signature

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 2
 Docket Number (2) 0 5 | 0 | 0 | 0 | 2 | 3 | 7
 Page (3) 1 | of | 0 | 5

Title (4) Bellows at Primary Containment Penetration X-125 Found Outside FSAR Design Limits Due to Inaccurate Piping Analysis

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	8	2	8	9	2	9	2	0	2	9	0	0	0	2	3	7
										Dresden Unit 3		0 5 0 0 0 2 4 9				

OPERATING MODE (9) N

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

POWER LEVEL (10) 0 8 7	<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 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 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)	

LICENSEE CONTACT FOR THIS LER (12)

Name: Ronald R. Skoglund, Technical Staff System Engineer
 Ext. 2543
 TELEPHONE NUMBER: AREA CODE 8 | 1 | 5 | 9 | 4 | 2 | - | 2 | 9 | 2 | 0

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) 1 | 1 | 1 | 5 | 9 | 2
 Yes (If yes, complete EXPECTED SUBMISSION DATE) NO

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

At 1400 hours on August 28, 1992, with Unit 2 at 86.8 percent power and Unit 3 at 86.1 percent power, an engineering evaluation determined that the bellows assembly and piping at the drywell vent and purge containment penetration X-125 on both Unit 2 and Unit 3 is operable but outside the Final Safety Analysis Report (FSAR) design limits. Several preceding events led to the determination that the bellows were outside of the FSAR design limits. An engineering review was being performed for a modification to containment penetration X-125 on both units. A discrepancy between the analyzed configuration and the as-built configuration on the bellows elements for these penetrations was found. The analyzed configuration included a single ply bellows with tie-rod supports. The as-built configuration consists of a two ply bellows with no tie-rod supports. A Problem Identification Form (PIF) was written to document the discrepancy on August 21, 1992. An operability evaluation based on engineering judgement for Unit 2 and Unit 3 was performed by the Nuclear Engineering Department (NED) on August 25, 1992. After it was determined that the piping was outside the FSAR design limits, NED made recommendations to bring the piping back within the FSAR design limits by replacing the X-125 bellows assemblies during upcoming refueling outages. The Safety Significance of this event is minimal since the bellows meet operability requirements. This event is the first occurrence where a bellows on a primary containment penetration was found outside FSAR design limits.

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

The inaccurate analysis was then incorporated to become part of the FSAR design limits. NED has determined that the improper piping analysis does not meet 10 CFR Part 21 criteria since it has been determined that the analysis was an isolated case and an operability concern or safety hazard is not present. Maintenance histories were reviewed for the X-125 bellows assemblies but were not very useful since the bellows assemblies require no maintenance. The local leak rate test (LLRT) data was also reviewed. The X-125 bellows on Unit 3 are currently scheduled for replacement under Dresden's Technical Specification exemption for 10 CFR 50 Appendix J bellows testing. The Unit 2 penetration has shown small amounts of leakage during testing.

D. SAFETY ANALYSIS OF EVENT:

The primary containment penetrations and their bellows assemblies are part of the primary containment boundary. The purpose of the bellows assemblies is to allow for thermal expansion of the process pipe during heatup and system operation. Most penetrations consist of a penetration sleeve, guard pipe, process pipe, bellows assembly, and a flued head anchor (Figure 1). The X-125 penetration only consists of a process pipe and a bellows assembly with the bellows assembly as an integral part of the process pipe (Figure 2). Even though the as-built configuration of the bellows is outside the FSAR design limits, the bellows has been determined to be operable. Therefore, the safety significance of this event is minimal.

E. CORRECTIVE ACTIONS:

The immediate corrective actions taken were for NED to evaluate the X-125 bellows for operability and determine if the unanalyzed as-built configuration fell within the FSAR design limits. When the existing bellows were found outside of the FSAR design limits, additional corrective actions became necessary. Engineering is having a root cause analysis performed for this event in order to identify contributing factors that led to the inaccurate piping analysis. This root cause analysis will be completed by September 30, 1992 (2372009219001). After the root cause analysis is performed, the Technical Staff will review the documentation and pursue necessary corrective action, which will include a LER supplemental report, by November 15, 1992 (2372009219002). In addition the Technical Staff will be responsible for replacing the bellows assemblies for penetration X-125 with ones that meet the design limits of the FSAR. These replacements are currently scheduled for D2R13 and D3R13 (2372009219003).

F. PREVIOUS OCCURENCES:

No previous occurrences involving a bellows on a primary containment penetration being outside the FSAR design limits was found during a review of past reportable events on the primary containment system.

G. COMPONENT FAILURE DATA:

A component failure did not occur during this event.

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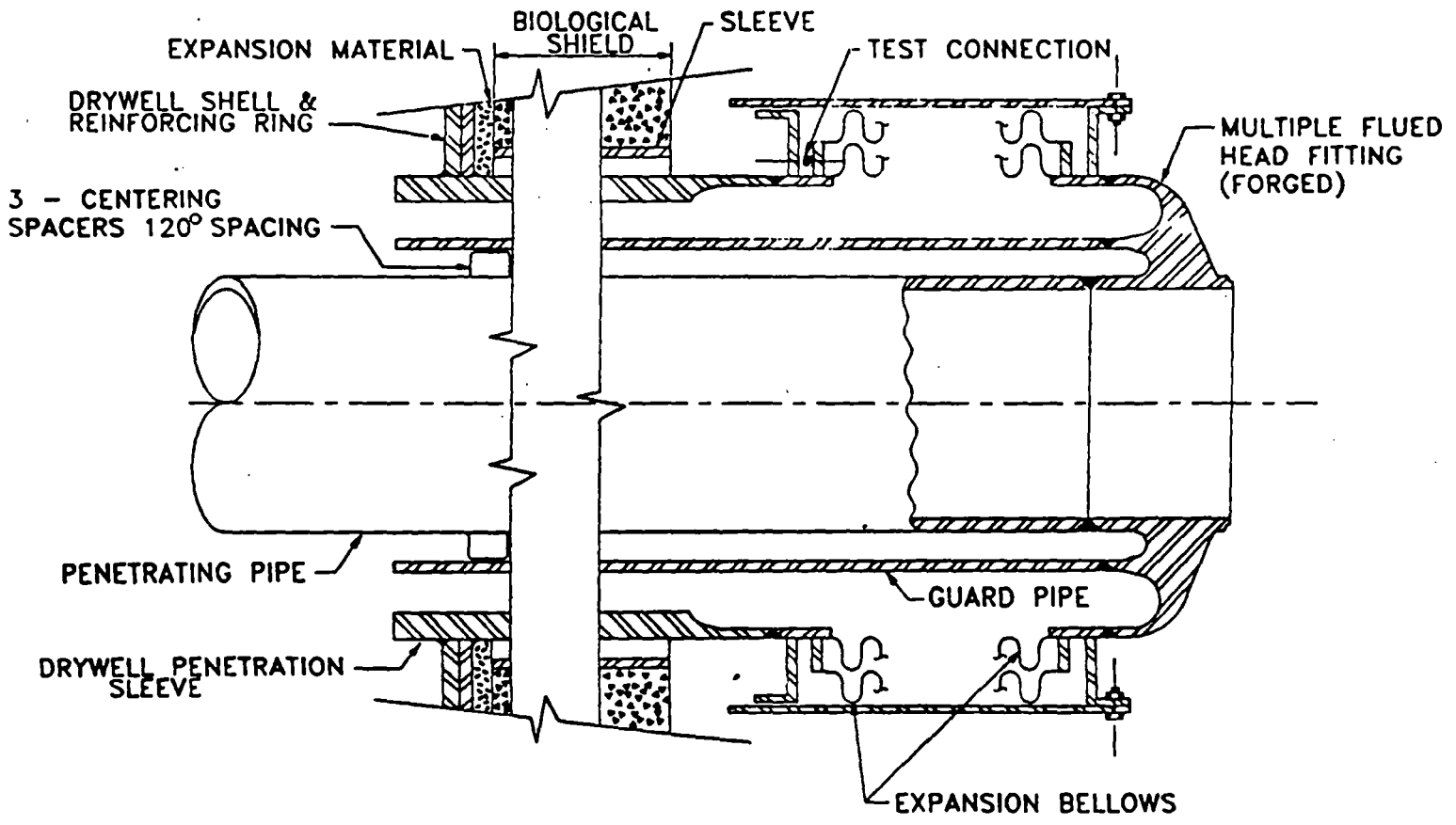


Figure 1

Configuration of Most Penetrations

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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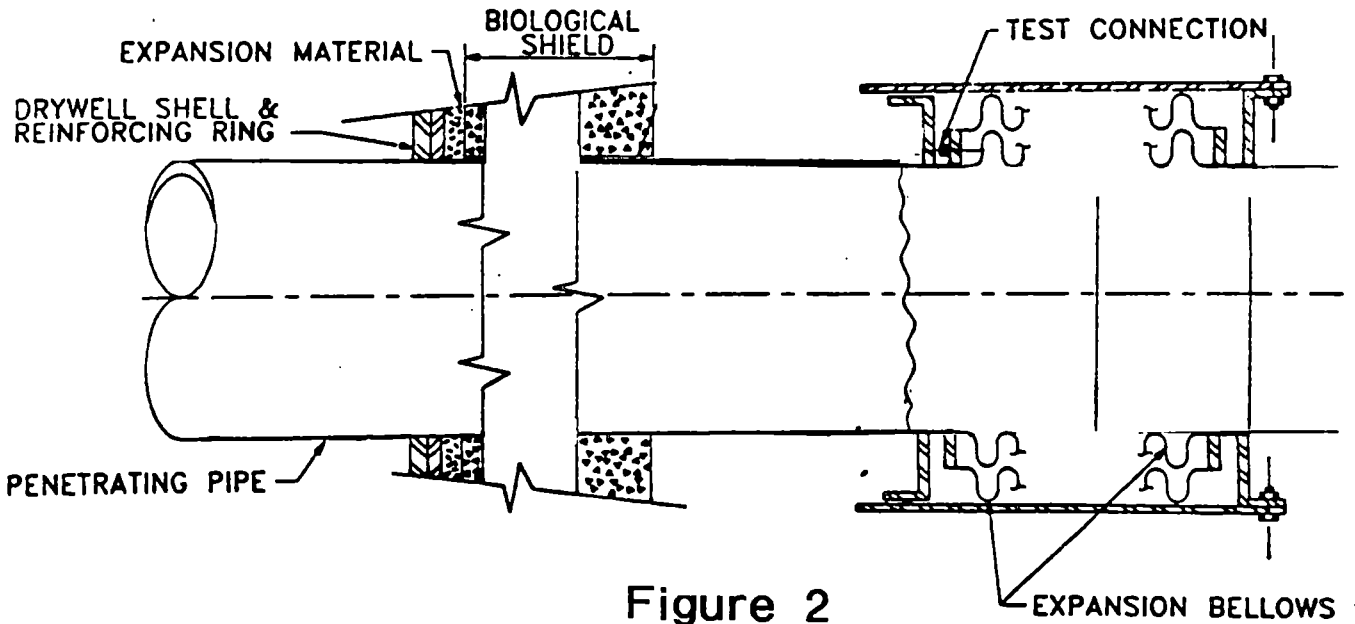


Figure 2

Configuration of X-125