

NORTHEAST UTILITIES



The Connecticut Light And Power Company
Western Massachusetts Electric Company
Holyoke Water Power Company
Northeast Utilities Service Company
Northeast Nuclear Energy Company

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October 2, 1992
MP-92-1067

Re: 10CFR50.73

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

Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Licensee Event Report 90-017-02

Gentlemen:

This letter forwards update Licensee Event Report 90-017-02.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace
Vice President - Millstone Station

SES/JMB:tp

Attachment: LER 90-017-02

cc: T. T. Martin, Region I Administrator
P.D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2

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NRC Form 306 (6-89)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED GMB NO. 2150-0104 EXPIRES: 4/30/92 Estimated burden per response to comply with this information collection request: 50.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (p-530), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (2150-0104), Office of Management and Budget, Washington, DC 20503.	
LICENSEE EVENT REPORT (LER)					
FACILITY NAME (1)				DOCKET NUMBER (2)	
Millstone Nuclear Power Station Unit 2				0 5 0 0 0 3 5 6 1 (, 0) 3	
TITLE (4)					
Service Water Pipe Support Inadequacy					
EVENT DATE (5)		ER NUMBER (6)		REPORT DATE (7)	
MONTH	DAY	YEAR	YEAR	MONTH	DAY
1	0	1	0	0	1
0	1	0	0	0	2
9	0	0	0	0	2
0	0	0	0	0	2
OPERATING MODE (8)		THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)			
6		20.402(b) <input type="checkbox"/> 20.402(c) <input type="checkbox"/> 50.79(a)(2)(iv) <input type="checkbox"/> 73.71(b) <input type="checkbox"/> 20.405(a)(1)(iii) <input type="checkbox"/> 50.79(a)(2)(v) <input checked="" type="checkbox"/> 50.79(a)(2)(vi) <input type="checkbox"/> 73.71(c) <input type="checkbox"/> 20.405(a)(1)(iv) <input type="checkbox"/> 50.79(a)(2)(vii) <input checked="" type="checkbox"/> 50.79(a)(2)(viii) <input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 306A) <input type="checkbox"/> 20.405(a)(1)(v) <input type="checkbox"/> 50.79(a)(2)(ix) <input type="checkbox"/> 50.79(a)(2)(x) <input type="checkbox"/> 20.405(a)(1)(vi) <input type="checkbox"/> 50.79(a)(2)(xi) <input type="checkbox"/> 50.79(a)(2)(xii) <input type="checkbox"/>			
POWER LEVEL (10)		LICENSEE CONTACT FOR THIS LER (12)			
0 0 0		NAME: Joseph M. Bergin, Engineer, Ext. 5552 TELEPHONE NUMBER: 2 0 3 4 4 7 - 1 7 9 1			
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)					
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	
B	B-1	S/P/T		Yes	
SUPPLEMENTAL REPORT EXPECTED (14)					EXPECTED SUBMISSION DATE (15)
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)					0 1 3 0 9 3
<input type="checkbox"/> NO					
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)					
<p>On October 10, 1990, with the Unit in Mode 6, 0% power and temperature at 90 degrees, it was discovered that a seismic Class 1 hanger, #60027, did not comply with the requirements of I&E Bulletin 79-02. The anchor bolts on this hanger were being inspected as part of a program being instituted to evaluate the effects of salt water induced corrosion on the seismic integrity of Class 1 hangers. During this evaluation, hanger #60027 was found with degraded anchor bolts. While performing calculations to determine the "As Found" factor of safety for this hanger, an error was found to show that the hanger did not meet the required factor of safety ≥ 4. The "As Found" factor of safety was calculated and was less than 2. Calculations have shown that section of piping support by this hanger would have failed during the Design Basis Earthquake. During the Operating Basis Event the pipe would have suffered plastic deformation. Failure of this pipe could have affected the ability of both Service Water Headers to satisfy their intended safety functions. Since the requirement for this hanger is based upon the need to seismically qualify a flow restriction orifice and the hanger does not meet this design function, the flow orifice at the branch connection of each service water header has been relocated to an upstream portion of the system. This upstream location is seismically qualified by other hangers and the need for hanger #60027 has been eliminated. Hanger #60027 has been removed.</p>					

NRC Form 308A (6-89)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92 Estimated burden per response to comply with this information collection request: 50 0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (D-530), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.																
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION																				
FACILITY NAME (1): Millstone Nuclear Power Station Unit 2		DOCKET NUMBER (2): 0 5 0 0 0 3 3 5 9 0		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">LER NUMBER (6)</th> <th colspan="2" style="text-align: center;">PAGE (3)</th> </tr> <tr> <th style="text-align: center;">YEAR</th> <th style="text-align: center;">SEQUENTIAL NUMBER</th> <th style="text-align: center;">REVISION NUMBER</th> <th></th> <th></th> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">1</td> <td style="text-align: center;">7</td> <td style="text-align: center;">0</td> <td style="text-align: center;">2</td> </tr> </table>		LER NUMBER (6)			PAGE (3)		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			0	1	7	0	2
LER NUMBER (6)			PAGE (3)																	
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER																		
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TEXT (If more space is required, use additional NRC Form 308A-3) (17)																				
<div style="margin-bottom: 10px;"> I. <u>Description of Event</u> <p>On October 10, 1990, with the Unit in Mode 6, 0% power and temperature at 90 degrees, it was discovered that a seismic Class I hanger, #60027, did not comply with the requirements of I&E Bulletin 79-02. During the course of the Refueling activities, an evaluation was being performed to determine the extent of corrosion affects of seismic anchor bolts in areas where they could be subjected to salt water intrusion. This evaluation required several hangers to be removed from their grout pads and anchor bolts. The hanger #60027 was removed from its grout pad and the "As Found" diameters of its anchor bolts were determined. This data and the original design calculation were then reviewed by the Engineering staff. This review found that the original design did not comply with the requirements of I&E Bulletin 79-02. Further evaluation determined that this hanger had a remaining factor of safety less than 2.</p> <p>This hanger supports the Service Water supply from the Facility I and Facility II Service Water headers to the Sodium Hypochlorite skid. The design for this line incorporates the use of a flow restricting orifice in each supply line to limit flow to acceptable levels, if this line were to fail during a seismic event. The orifice in each line is located between a hanger at the branch point on each header and hanger #60027, where the two lines meet at a tee. These lines are designated as seismic Class II lines in the Unit's design. The specification change, from Class I to Class II, occurs at a manual isolation valve in each branch line from the Facility I and II Service Water Headers.</p> <p>There were no Automatic or manually initiated safety responses as a result of this event.</p> </div> <div style="margin-bottom: 10px;"> II. <u>Cause of Event</u> <p>The root cause of this event is personnel error in the placement of a Category I component in a system which is designated as Class II in the Unit's specification. This deficiency resulted in this hanger being considered a Class II hanger when the 79-02 review was performed and as a result the deficiency in the calculation was not discovered until this hanger inspection program required a review of the original calculation.</p> </div> <div style="margin-bottom: 10px;"> III. <u>Analysis of Event</u> <p>This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(v) and 50.73(a)(2)(vii) which require the reporting of events that affect the Unit's ability to remove residual heat. At the time of discovery the manual isolation valves which isolate this portion of the system from the main headers were closed. Upon discovery these valves were maintained closed until the flow orifice on each of the headers were relocated.</p> <p>If the Design Basis Earthquake were to occur with the hanger in the degraded condition, each of the Service Water Headers could have had a six-inch breach until isolated by closure of the manual isolation valves. This six-inch breach in the discharge piping of the Service Water Pumps would have reduced the flow to vital components to less than that required by the Design Basis.</p> <p>Based upon the fact that no seismic event had occurred there was no safety significance to this event.</p> </div> <div> IV. <u>Corrective Action</u> <p>The need for the hanger has been eliminated based upon the relocation of the flow orifice to the upstream side of the manual isolation valve in each line. Based upon this relocation, hanger #60027 is no longer required to meet the design and has been removed from the service water system.</p> </div>																				

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 60.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (P-530), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Millstone Nuclear Power Station Unit 2	0 5 0 0 0 3 3 6 9 0	0 1 7	0 2	0 3	OF	0 3	

TEXT: If more space is required, use additional NRC Form 366A, e) (17).

Since this section of piping was upgraded from a seismic Class II to a seismic Class I, it is unique in the Unit and no other similar conditions are anticipated. The staff will review a sample lot of hangers in Safety Related Systems at the interface between seismic Class I and Class II. This will verify that hangers which are required for seismic Class I systems are in compliance with the requirements of I&E Bulletin 79-02. As previously identified the review will be complete prior to startup for cycle 12. Due to the extension of the end of cycle 11 refueling the update will be submitted by January 30, 1993.

V. Additional Information

Similar LERs 86-01

EHS Code BI - SPT - 0000