

NORTHEAST UTILITIES



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

General Offices: Seiden Street, Berlin Connecticut

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(203)665-5000

February 8, 1993
MP-93-139

Re: 10CFR50.73(a)(2)(i)(B)

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

Reference: Facility Operating License No. DPR-21
Docket No. 50-245
Licensee Event Report 93-001-00

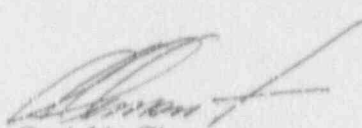
Gentlemen:

This letter forwards Licensee Event Report 93-001-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(i)(B).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Stephen E. Seace
Vice President - Millstone Station

BY: 
Carl H. Clement
Millstone Unit 3 Director

SES/DNH:dlr

Attachment: LER 93-001-00

cc: T. T. Martin, Region 1 Administrator
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
J. W. Andersen, NRC Acting Project Manager, Millstone Unit No. 1

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NRC Form 365 U.S. NUCLEAR REGULATORY COMMISSION										APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92																			
LICENSEE EVENT REPORT (LER)																				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 (3150-0104), Office of Management and Budget, Washington, DC 20503.									
FACILITY NAME (1)															DOCKET NUMBER (2)										PAGE (3)				
Millstone Nuclear Power Station Unit 1															050002451										OF 03				
TITLE (4)																													
Snubber Technical Specification Violation																													
EVENT DATE (5)					LER NUMBER (6)					REPORT DATE (7)					OTHER FACILITIES INVOLVED (8)														
MONTH	DAY	YEAR	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES																			
01	08	93	93	93	001	00	02	08	93																				
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OPERATING MODE (9)					THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 2. (Check one or more of the following) (11)																								
POWER LEVEL (10) 11010					20.402(b)					20.402(c)					50.73(a)(2)(iv)					73.71(b)									
					20.405(a)(1)(i)					50.30(c)(1)					50.73(a)(2)(v)					73.71(c)									
					20.405(b)(1)(i)					50.30(c)(2)					50.73(a)(2)(vi)					OTHER (Specify in Abstract below and in Text, NRC Form 365A)									
					20.405(c)(1)(i)					50.73(a)(3)(i)					50.73(a)(2)(vii)														
					20.405(a)(1)(iv)					50.73(a)(2)(ii)					50.73(a)(2)(viii)(B)														
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LICENSEE CONTACT FOR THIS LER (12)																													
NAME															TELEPHONE NUMBER														
John M. Quinn, Engineering Supervisor, Ext. 5306															AREA CODE														
															203447-1791														
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																													
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC																				
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<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)															<input checked="" type="checkbox"/> NO														
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																													
<p>On January 8, 1993, while at 100% power, completion of an engineering evaluation determined that previous snubber failure of HSS-018, "B" Safety Relief Valve (SRV) discharge line, resulted in failure to meet Technical Specification Limiting Condition for Operation Section 3.6.1.4.</p> <p>During the 1991 refuel outage, hydraulic snubber HSS-018 was scheduled for rebuild/replacement per Millstone Unit 1 Seal Life Program. Snubber HSS-018 was removed for functional test and replacement on April 24, 1991. This snubber was replaced with a spare snubber which was functionally tested to a generic acceptance criterion prior to the outage. The snubber removed from HSS-018 location failed the functional test.</p> <p>During an extended unplanned cold shutdown outage in January 1992, hydraulic snubber HSS-018 was retested because of its functional failure in the previous outage. The snubber failed the retest. It was determined that following the failure in the 1991 refuel outage, the spare snubber that was installed did not have the correct lockup and bleed rate settings for the specific location. The plant started up following the 1991 refuel outage on August 14, 1991 with this snubber installed, and operated until October 1, 1991. Plant operation with an inoperable snubber during this time frame resulted in failure to meet Technical Specification 3.6.1.4.</p> <p>The snubber settings were reset, functionally tested satisfactorily, and reinstalled prior to plant startup in March 1992.</p> <p>The maintenance procedures utilized for the removal, functional testing, rebuild, and reinstallation have been revised to ensure that there will not be a recurrence of this condition.</p>																													

NRC Form 305A (6-89)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES: 4/30/92							
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				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 (3150-0104), Office of Management and Budget, Washington, DC 20503.							
FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (3)							
Millstone Nuclear Power Station Unit 1		0 5 0 0 0 2 4 5 9 3		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">YEAR</th> <th style="text-align: center;">SEQUENTIAL NUMBER</th> <th style="text-align: center;">REVISION NUMBER</th> </tr> <tr> <td style="text-align: center;">0 0 1</td> <td style="text-align: center;">0 1 0</td> <td style="text-align: center;">0 2</td> </tr> </table>		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	0 0 1	0 1 0	0 2
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				PAGE (3) OF 3							

TEXT (if more space is required, use additional NRC Form 305A-s) (17)

1. Description of Event

On January 8, 1993, while at 100% power, completion of an engineering evaluation determined that previous snubber failure of HSS-018, "B" Safety Relief Valve (SRV) discharge line, resulted in failure to meet Technical Specification Limiting Condition for Operation Section 3.6.1.4.

During the 1991 refuel outage, hydraulic snubber HSS-018 was scheduled for rebuild/replacement per Millstone Unit 1 Seal Life Program. A visual examination is required on 100% of all safety related snubbers prior to any removal/functional test/rebuild/replacement. HSS-018 failed the visual examination during the 1991 refueling outage due to evidence of leaking fluid. Snubber HSS-018 was removed for a functional test and replacement on April 24, 1991. This snubber was replaced with a spare snubber which was functionally tested to a generic acceptance criterion prior to the outage. The snubber removed from HSS-018 location failed the functional test with a high bleed rate in tension.

During an extended unplanned cold shutdown outage which commenced on October 1, 1991, visual and functional snubber inspections and tests were performed in January 1992 to establish a new reference point for commencement of the next inspection interval. Hydraulic snubber HSS-018 was retested because of its functional failure in the previous outage. The snubber failed the retest. It was determined that following the failure in 1991, the spare snubber that was installed did not have the correct lockup and bleed rate settings for that specific location. HSS-018 has a higher bleed rate, unlike the majority of all other snubber locations. HSS-018 has a bleed rate of 4.2 in/min as compared to a 0.2 in/min rate for the majority of the snubber population.

Subsequent to functional failure of HSS-018 in 1991 and 1992, engineering evaluations were performed to determine operability of the supported system/components per Technical Specifications, Section 4.6.1.3. Both evaluations determined the snubber failures to have no detrimental impact on the supported system/components and therefore the supported system/component remained operable.

The cause of the failure in 1991 was determined to be age/wear out of the internals (poppet). The Seal Life Program requires all snubbers to be replaced/rebuilt within 5 to 7 years. The rebuild procedure includes the replacement of the internals (i.e., poppets, springs) in addition to the seals. HSS-018 had been selected to be replaced during the 1991 refuel outage along with all other snubbers which had not been replaced or rebuilt since 1984.

Based on Surveillance Requirement Section 4.6.1.1 and the fact that the cause of the rejection is clearly established and remedied for this snubber and all other snubbers of this vintage have been rebuilt or replaced, the visual inspection interval remains at 18 months.

11. Cause of Event

Millstone Unit 1 conducted power operations between August 14, 1991 and October 1, 1991 while the snubber with the incorrect bleed rate was installed, which was not in accordance with Technical Specifications 3.6.1.4.

The functional test for HSS-018 failed due to low bleed rate in compression. The cause of the failure was determined to be administrative and not mechanical. When the snubber was removed during the 1991 refuel outage, it was replaced with a rebuilt spare. The spare snubber had been rebuilt and tested to a generic acceptance criterion (0.2 in/min. to 13.2 in/min) prior to the outage and not the acceptance criterion (4.2 in/min. to 13.2 in/min.) for snubber location HSS-018.

The root cause of this event was lack of procedural guidance to ensure that all snubbers are tested to the specifications for the location for which they are intended.

NRC Form 366A (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 O.B.A. 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.							
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION											
FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)							
Millstone Nuclear Power Station Unit 1		05000245913		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">YEAR</th> <th style="width: 33%;">SEQUENTIAL NUMBER</th> <th style="width: 33%;">REVISION NUMBER</th> </tr> <tr> <td>00</td> <td>01</td> <td>00</td> </tr> </table>		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	00	01	00
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				PAGE (3) 03 OF 03							

TEXT (If more space is required, use additional NRC Form 366A's) (17)

During January 1992, it was realized that a snubber with the incorrect setting had been installed in location HSS-018 from August 14, 1991 until January 18, 1992. At the time, the evaluation focused primarily on the operability of the supported system. Given the positive system operability results, the January 1992 snubber failure was determined to not be reportable. However, we failed to recognize that Technical Specification 3.6.1.4 was not met between August 1991 and October 1, 1991 solely based upon the snubber being inoperable. It was only after a related engineering evaluation to determine if the snubber operability had correctly addressed seismic issues was completed that it was realized that because snubber HSS-018 was inoperable between August 14, 1991 and October 1, 1991 the failure to meet Technical Specification Section 3.6.1.4 should have been reported.

III. Analysis of Event

This event is reportable pursuant to 10CFR50.73(a)(2)(i)(B). No safety consequences resulted from this event since the snubber is installed to restrain the system against seismic events and SRV blowdown loading while allowing freedom of movement thermally. The SRV line did experience several short duration blowdowns (1 second) due to startup testing requirements while the incorrect snubber was installed. However, the short duration of these transients did not allow the SRV line to completely respond thermally; thus the displacements and displacement rate would have been below those used in the design calculations. Under these conditions, the potential restriction of growth is negligible and would not degrade the system under the normal operation or test conditions. The engineering evaluation did not reveal any safety implications due to this event. The evaluation concluded that the SRV discharge would not have been compromised during normal SRV discharge, SSE earthquake or DBA loadings. Thus, although the individual snubber HSS-018 was technically inoperable, the SRV system remained operable.

IV. Corrective Action

Snubber HSS-018 was rebuilt, reset to the correct setting, and functionally tested prior to reinstallation on February 4, 1992.

A review of the functional test data for all snubbers was performed to verify that the above condition did not exist at any other location. This review did not identify any other similar discrepancies.

The maintenance procedures utilized for the removal, functional testing, rebuild, and reinstallation have been revised to ensure that there will not be a recurrence of this condition by specifying the requirements for each snubber location.

A more formalized snubber program and associated procedures are being developed which will provide clear guidance on necessary evaluations and reportability as specifically related to snubbers failures. Reporting snubber failures similar to this event will be explicitly addressed. This will be in place prior to the next refueling outage.

V. Additional Information

Snubber location HSS-018 contains a Bergen-Patterson Size 20 hydraulic snubber.

This is the first occurrence of this type at Millstone Unit 1.