

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: Selden Street, Berlin, Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 665-5000
April 23, 1993
MP-93-330

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-65
Docket No. 50-336
Licensee Event Report 93-006-00

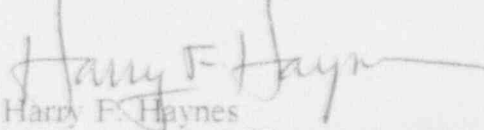
Gentlemen:

This letter forwards Licensee Event Report 93-006-00 required to be submitted within thirty (30) days pursuant to 50.73(a)(2)(i)(B).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Stephen E. Scace
Vice President - Millstone Station

BY: 
Harry F. Haynes
Millstone Unit 1 Director

SES/PHC:ljs

Attachment: LER 93-006-00

cc: T. T. Martin, Region 1 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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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)

Millstone Nuclear Power Station Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 3 3 6 1 OF 0 3

PAGE (3)

TITLE (4)

Structural Integrity of Service Water Supply Piping to the West 480V Switchgear Room Coolers

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										
0	3	2	4	9	3	9	3	0	0	6	0	0	0	3	2	3	9	3	

OPERATING MODE (9)

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

POWER LEVEL (10)

1 0 0

20.402(b)

20.402(c)

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, NRC Form 366A)

20.405(a)(1)(iii)

X

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)(ix)

LICENSEE CONTACT FOR THIS LER (12)

NAME

Paul Collette, Unit 2 Service Water System Engineer, Ext. 6453

TELEPHONE NUMBER

AREA CODE

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	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

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)

On March 24, 1993, at 1800 hours with the plant at 100% power, it was determined that the service water supply piping to switchgear room coolers X-181A and X-181B did not meet the structural integrity requirements of Technical Specification 3.4.10.

During the unit's refueling outage, service water piping inside the West 480 V Switchgear Room had been modified to facilitate the installation of new coolers. All of the pipe welds inside the switchgear room were completed and all code required final visual inspections were satisfactorily performed by December 30, 1992. However, the hydrostatic test was deferred until service water pipe replacements located outside the room were completed. Concurrent with the piping work, the turbine was placed on-line on January 13, 1993. The pipe replacements were completed on January 21, 1993. A hydrostatic test performed on January 25, 1993, revealed a small leak under hydrostatic pressure. With the plant on-line, a code repair was not feasible due to the potential for a plant trip caused by welding in the area of sensitive electrical equipment. Therefore, a relief request was submitted on February 24, 1993. During USNRC review of the relief request, it was determined that TS 3.4.10 was applicable and that the structural adequacy was in question since the leak was discovered during a hydrostatic test.

Enforcement discretion for TS 3.4.10 was verbally granted by the USNRC on March 25, 1993. An Engineered Clamp which provides enhanced structural integrity for the affected weld joint was installed on March 31, 1993. Millstone Unit 2 logged out of the enforcement discretion on March 31, 1993, at 1532 hours.

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 (6)

PAGE (3)

Millstone Nuclear Power Station
Unit 2YEAR
SEQUENTIAL
NUMBERREVISION
NUMBER

0 5 0 0 0 3 3 6 9 3 0 0 6 0 0 0 2 OF 0 3

TEXT (If more space is required, use additional NRC Form 365A-s) (17)

I. Description of Event

On March 24, 1993 at 1800 hours with the plant at 100% power, it was determined that the service water supply piping to switchgear room coolers X-181A and X-181B did not meet the structural integrity requirements of Technical Specification 3.4.10.

During the unit's refueling outage, service water piping inside the West 480 Volt Switchgear Room had been modified to facilitate the installation of new coolers. All of the pipe welds inside switchgear room were completed and all code required final visual inspections were satisfactorily performed by December 30, 1992. However, the hydrostatic test was deferred until downstream pipe replacements located outside the room were completed.

Concurrent with the piping work, the turbine was placed on-line January 13, 1993. Material procurement delays prevented completing the outside pipe replacements until January 21, 1993. The cooler outlet piping was successfully hydrostatically tested on January 21, 1993. The cooler inlet piping hydrostatic test performed on January 25, 1993, revealed a minor leak at a 2 inch socket weld pipe joint. The test pressure was 110 psig; the weld joint does not leak under normal 38 psig system pressure.

The affected weld joint is located inside the West 480 Volt Switchgear Room. A weld repair would have a high probability of affecting sensitive electro-hydraulic control equipment located inside the room and could result in a plant trip. A code repair was therefore considered not feasible and a Generic Letter 90-05 relief request was submitted on February 24, 1993.

Subsequent discussions between Northeast Utilities (NU) and the USNRC concluded that GL 90-05 was not applicable since the leak was discovered during a hydrostatic test, and the relief request would be denied.

During the review of the relief request, it was concluded that TS 3.4.10 was applicable, and that the structural adequacy was in question since the leak was discovered during a hydrostatic test.

Enforcement Discretion for TS 3.4.10 was verbally granted by the USNRC on March 25, 1993. (The written request was submitted by NU on March 26, 1993, via Docket No. 50-336). An Attachment to the submittal included a request for "Use of a Proposed Alternative to ASME Section XI in Accordance with the Requirements of 10CFR50.55a(3)(ii)." The proposed alternative consists of an "engineered clamp" designed to provide enhanced structural integrity for the affected weld joint. The engineered clamp was installed on March 31, 1993. The NRC was notified of the installation of the engineered clamp, and Millstone Unit 2 logged out of enforcement discretion associated with TS 3.4.10 on March 31, 1993 at 1532 hours.

Operator response to this event was limited to monitoring the subject weld once per shift in order identify any further degradation. There were no manual or automatic safety systems actuated during this event.

II. Cause of Event

The cause of the event was the failure of plant personnel to interpret that Technical Specification 3.4.10 associated with the Reactor Coolant system code requirements was applicable to code piping in any other systems.

At the time the leak was first discovered, NU had performed an assessment using GL 90-05 accepted methodology to verify operability of the service water system. The structural analysis confirmed the adequacy of the affected weld joint.

The applicability of TS 3.4.10, Reactor Coolant System - Structural Integrity is based on the position that the LCO is applicable to all code piping, and that the service water piping failed to provide structural integrity since it leaked during the hydrostatic test.

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 (6)

PAGE (3)

Millstone Nuclear Power Station
Unit 2

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
0500033693	006	00

03 OF 03

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

III. Analysis of Event

This event is being reported pursuant to 10CFR50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specification.

There were no safety consequences from the failure to meet the structural integrity requirements. NU performed an assessment to verify the operability of this portion of the service water system. The results of the assessment were that no compensatory measures were necessary and that the system would perform it's design requirements in a manner unchanged from original design. The degraded piping was evaluated and demonstrated to remain operable for all design basis loading events (i.e., pressure, deadweight, thermal, seismic). The failure to provide structural integrity is based solely on leakage observed during an ASME code hydrostatic test.

The line did not leak during normal operation, and a Operations Night Order was issued to monitor the joint a minimum of once per shift. In the unlikely event that leakage did occur, the line could be isolated.

The plant operated under the "Enforcement Discretion" for six days.

IV. Corrective Action

An Operations Night Order was issued to monitor the joint a minimum of once per shift, and to isolate the line if a leak develops.

An engineered clamp was designed and installed to provide enhanced structural integrity for the affected weld joint.

An Automated Work Order has been prepared to provide a permanent code repair during the next scheduled outage of 10 days or longer.

The Unit 2 Staff has been notified of the structural integrity requirements relative to hydrostatic tests.

V. Additional Information

Similar LERS: none

EIIS Code Identifiers for Referenced Components:

Service Water Pipe: BI-PSF-0000

Vital Switchgear Cooling System: VI-CLR-0000

Electro-Hydraulic Control System: TG-HCU-GO84