Northeast
Utilities System

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(203) 665-5000

September 26, 1996

Docket No. 50-336
B15918

Re: 10 CFR 50.73(a)(2)(i)(B)

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

This letter forwards Licensee Event Report (LER) 96-030-00, documenting an event that occurred at Millstone Nuclear Power Station, Unit No. 2 on August 29, 1996. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B).

The following are NNECO's commitments made within this letter. All other statements made within this letter are for information only.

B15918-01: The safety function of all check valves listed in the Pump and Valve Testing Bases Document will be reviewed to verify that their bases descriptions are correct. Additionally, the corresponding surveillance procedures will be reviewed and revised, if appropriate, to ensure that the safety functions are adequately tested. These actions will be completed prior to restart of the unit.

B15918-02: Investigation of this event is continuing to ensure appropriate corrective actions are identified. A supplement to this LER will be submitted by February 14, 1997 to provide additional information identified as a result of this investigation.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

For: P. M. Richardson
Director - Millstone Unit No. 2

IE22

M. J. Wilson
Manager - Operations
Millstone Unit No. 2

cc: see page 2

Attachment: LER 96-030-00

cc: H. J. Miller, Region I Administrator
P. D. Swetland, Senior Resident Inspector, Millstone Unit No. 2
D. G. McDonald, Jr., NRC Project Manager, Millstone Unit No. 2

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Millstone Nuclear Power Station Unit 2	05000336	1 of 3

TITLE (4)

Failure to Perform ASME Section XI Testing for Closure Function of High Pressure Safety Injection System Pump Discharge Check Valves

EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER			REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
08	29	96	96	--	030	--	00	09	26	96	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	000	20.2201(b)	20.2203(a)(2)(v)	[X] 50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
M. D. Ehredt, Nuclear Licensing Supervisor	(860)440-2142

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	MONTH	DAY	YEAR
[X] YES (If yes, complete EXPECTED SUBMISSION DATE).	[ ] NO		02	14	97

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On August 20, 1996 during a review of Inservice Test Program procedure changes, it was identified that the pump and valve testing system design bases for the high pressure safety injection (HPSI) system pump discharge check valves were incorrect. The pump and valve testing bases document contained information that indicated that the HPSI pump discharge check valves only provide an open safety function rather than the required open and closed safety functions. On August 29, 1996, it was determined that the requirements of Technical Specification 4.0.5 had not been met and, therefore, this event was reportable in accordance with 10CFR50.73(a)(2)(i)(B).

The cause of this event was an inadequate assessment of the valves safety function during the development of the Pump and Valve Testing Bases Document.

At the time of discovery of this event, the spare HPSI pump discharge check valve was isolated from both loops. Compensatory measures have been implemented which require that the spare HPSI pump discharge check valve remains isolated until the close function is tested. The safety function of all check valves listed in the Pump and Valve Testing Bases Document will be reviewed to verify that their bases descriptions are correct. Additionally, the corresponding surveillance procedures will be reviewed and revised, if appropriate, to ensure that the safety functions are adequately tested. These actions will be completed prior to restart of the unit. A supplement to this LER will be submitted to provide additional information identified during the continuing investigation.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)					PAGE (3)
Millstone Nuclear Power Station Unit 2	05000336	96	--	030	--	00	2 of 3

TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

I. Description of Event

On August 20, 1996 during a review of Inservice Test Program procedure changes, it was identified that the pump and valve testing system design bases for the high pressure safety injection (HPSI) system pump discharge check valves were incorrect. The pump and valve testing bases document contained information that indicated that the HPSI pump discharge check valves only provide an open safety function rather than the required open and closed safety functions. The error in the bases document resulted in the deletion of surveillance requirements in December 1995 that required testing the closing function of the valve. The review of procedure changes had been initiated based on a question by the NRC resident inspector.

On August 29, 1996, it was determined that the requirements of Technical Specification 4.0.5 had not been met and, therefore, this event was reportable in accordance with 10CFR50.73(a)(2)(i)(B). Technical Specification 4.0.5 requires testing in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. Quarterly testing of the closing function of the HPSI pump discharge check valves had not been performed since the testing cycle of August 1995.

At the time of this event, the plant was in Mode 5 at 0 percent power. No immediate actions were required at the time of discovery of this event since maintenance activities were in progress such that the pump discharge check valve function was not required.

II. Cause of Event

The cause of this event was an inadequate assessment of the valves safety function during the development of the Pump and Valve Testing Bases Document.

III. Analysis of Event

Technical Specification 4.0.5 requires testing of ASME Code Class 1, 2, and 3 components in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. Since the HPSI pump discharge check valves perform a safety function of closing, that function should have been tested in accordance with the requirements of ASME Section XI. ASME Section XI requires testing of these valves on a quarterly basis. Testing of the close safety function has not been performed since August 1995; therefore, the frequency requirement had been exceeded. This event is being reported pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B), "any operation or condition prohibited by the plant's Technical Specifications."

The HPSI system consists of two independent loops to provide emergency coolant to the reactor coolant system (RCS). One HPSI pump is available for each loop and a third HPSI pump is designated as a spare and can be aligned to either loop. Normally, the suction and discharge piping of the spare pump is aligned to one of the two loops but is electrically isolated to prevent automatic starting. The spare pump discharge check valve prevents the flow from the operating pump in that loop from being diverted through the spare pump back to the supply header. This short-circuiting of the HPSI flow path would reduce the flow available to the RCS.

Prior to November 1995, the pump discharge check valves had been tested in both the open and closed direction. In order to address a concern involving the operation of the pumps during testing of the HPSI system (see similar events), the testing methodology was revised. Since the bases document did not identify the closing function as safety related, this testing requirement was deleted on December 9, 1995.

Although quarterly testing of the close function of these valves was not performed, normal pump testing in accordance with other surveillance requirements would provide indications of proper system operation.

Additionally, system flow tests are performed each refueling outage which would confirm proper system design flow. Based on these reasons, this event is not considered safety significant.

IV. Corrective Action

At the time of discovery of this event, the spare HPSI pump discharge check valve was isolated from both loops. An operability determination was performed and compensatory measures have been implemented which require that the spare HPSI pump discharge check valve remains isolated until the close function of the check valves is tested.

The safety function of all check valves listed in the Pump and Valve Testing Bases Document will be reviewed to verify that their bases descriptions are correct. Additionally, the corresponding surveillance procedures will be reviewed and revised, if appropriate, to ensure that the safety functions are adequately tested. These actions will be completed prior to restart of the unit.

Investigation of this event is continuing to ensure appropriate corrective actions are identified. A supplement to this LER will be submitted by February 14, 1997 to provide additional information identified as a result of this investigation.

V. Additional Information

EIIS Codes:

BQ - High Pressure Safety Injection system

Similar Events

LER 95-041: On October 30, 1995, a review of surveillance procedure 21136, "Safety Injection and Containment Spray System Valves Operational Readiness Test," indicated a potential to overload an emergency diesel generator if a loss of coolant accident (LOCA) and a loss of normal power (LNP) event were to occur while the surveillance procedure was in progress. This surveillance procedure is the procedure that was utilized to test the close function of the HPSI pump discharge check valves. The revision made to address this event resulted in the deletion of the testing of the close function as described in the current LER.

LER 94-039: On October 31, 1994, it was identified that some components were potentially not included in the inservice test program. The associated review for this event identified one valve that needed to be added to the program and seventeen valves that required testing beyond that specified in the program.

Manufacturer Data

None