

Northeast  
Nuclear Energy

Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station  
Northeast Nuclear Energy Company  
P.O. Box 128  
Waterford, CT 06385-0128  
(860) 447-1791  
Fax (860) 444-4277

7 Northeast Utilities System

FEB 20 1997

Docket No. 50-336

B16247

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

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


This letter forwards Licensee Event Report (LER) 97-004-00, documenting an event that occurred at Millstone Nuclear Power Station, Unit No. 2 on January 23, 1997. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i).

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

B16247-01: Additionally, similar changes will be made to the ECCS flow verification surveillance procedure prior to its use.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
\_\_\_\_\_  
J. A. Price  
Director, Millstone Unit No. 2

cc: see page 2

9702270420 970220  
PDR ADOCK 05000336  
S PDR

IF 22/1

Attachment: LER 97-004-00

cc: W. D. Travers, Director of Special Projects  
H. J. Miller, Region I Administrator  
D. P. Beaulieu, Senior Resident Inspector, Millstone Unit No. 2  
D. G. McDonald, Jr., NRC Project Manager, Millstone Unit No. 2

EXPIRES 04/30/98

## LICENSEE EVENT REPORT (LER)

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

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 (IT-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.

FACILITY NAME (1)

Millstone Nuclear Power Station Unit 2

DOCKET NUMBER (2)

05000336

PAGE (3)

1 OF 3

TITLE (4)

Violation of Technical Specification 3.1.2.3 Requirement for Number of High Pressure Safety Injection Pumps Capable of Injecting into the Reactor Coolant System

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 NAME	DOCKET NUMBER
01	23	97	97	-- 004 --	00	02	20	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		6	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)		<input checked="" type="checkbox"/> 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

R. G. Joshi, MP2 Nuclear Licensing

TELEPHONE NUMBER (Include Area Code)

(860) 440-2080

## 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)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

☒

NO

EXPECTED  
SUBMISSION  
DATE (15)

MONTH

DAY

YEAR

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

On January 23, 1997, it was discovered that three high pressure safety injection (HPSI) system pumps were capable of injecting water into the reactor coolant system contrary to the requirements of Technical Specification 3.1.2.3. This condition existed for approximately 36 minutes. The incorrect alignment occurred following the monthly operability test of the C HPSI pump and an inservice test of the B HPSI pump.

The cause of this event was personnel error. The Unit Supervisor involved in this event did not correctly identify all of the applicable requirements of the Technical Specifications. Contributing to this event was the failure of the inservice testing procedure to provide appropriate requirements for performance in applicable plant conditions.

As a result of this event, the requirements of Operations Department Instruction (ODI) 1.35, "Response to Personnel Error Events," have been completed by Operations Management to address the personnel error. The procedures for the monthly operating and inservice testing of the HPSI pumps have been revised to include HPSI and charging pump alignment requirements. Additionally, similar changes will be made to the ECCS flow verification surveillance procedure prior to its use.

## LICENSEE EVENT REPORT (LER)

## TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	97	-- 004 --	00	2 OF 3

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

I. Description of Event

On January 23, 1997, it was discovered that three high pressure safety injection (HPSI) [BQ] system pumps [P] were capable of injecting water into the reactor coolant system (RCS) [AB] contrary to the requirements of Technical Specification 3.1.2.3. This condition existed for approximately 36 minutes. At the time of discovery of this event, the plant was in Mode 6 at 0 percent power with the reactor vessel head removed.

On January 23, 1997 work was planned to perform the monthly operability test of the C HPSI pump and an inservice test of the B HPSI pump. Prior to beginning these tests, the HPSI system configuration was as follows. The motor circuit breakers [52] for HPSI pumps A and C were connected to their power supply and the motor circuit breaker for HPSI pump B was disconnected from its power supply. Both the A HPSI pump discharge valve (2-SI-656) [V] and the C HPSI pump discharge valve (2-SI-654) were open. HPSI pump B, which can be aligned to either discharge flowpath, was aligned with the C HPSI pump.

This lineup was consistent with Technical Specification 3.1.2.3 which provides requirements for the boron injection system during Modes 5 and 6. A minimum of one charging pump and one HPSI pump in the boron injection flow path is required to be operable. An additional charging pump and HPSI pump may be capable of injecting provided that the RCS is vented through a passive vent of  $\geq 2.8$  square inches. With more than the maximum allowed pumps capable of injecting, Technical Specification 3.1.2.3, Action b requires that immediate action be taken to comply with the Technical Specification requirements. HPSI pumps not intended to be capable of injecting must either have the motor circuit breakers disconnected from their power supply circuits or the discharge valve shut and tagged.

Prior to beginning the planned tests, a review of the applicable requirements for the current plant conditions was performed by the Unit Supervisor (utility - licensed operator); however, the requirements of Technical Specification 3.1.2.3 were not identified at that time. The monthly operability test of the C HPSI pump was performed which required the closing of discharge valve 2-SI-654. Following the testing of the C HPSI pump, the motor circuit breaker for the B HPSI pump was connected and the pump was started to perform the inservice test. The B HPSI pump was then stopped and at 10:48 discharge valve 2-SI-654 was opened. At this time, both discharge valves were open and the circuit breakers for all three HPSI pumps were connected. This resulted in all three HPSI pumps being capable of injecting into the RCS contrary to the requirements of Technical Specification 3.1.2.3.

While in this configuration, the requirements of Technical Specification 3.1.2.3 were identified and actions were immediately taken to achieve compliance. Discharge valve 2-SI-654 was closed at 11:24 and the circuit breaker for the B HPSI pump was disconnected. The total time that three HPSI pumps were capable of injecting into the RCS was approximately 36 minutes.

II. Cause of Event

The cause of this event was personnel error. The Unit Supervisor involved in this event did not correctly identify all of the applicable requirements of the Technical Specifications. Contributing to this event was the failure of the inservice testing procedure to provide appropriate requirements for performance in applicable plant conditions.

III. Analysis of Event

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specifications, due to the failure to comply with the requirements of Technical Specification 3.1.2.3.

## LICENSEE EVENT REPORT (LER)

## TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	97	-- 004 --	00	3 OF 3

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

The Technical Specification requirement limiting the number of HPSI pumps that can be aligned to the RCS in Modes 5 and 6 exists to address concerns involving Low Temperature Overpressure Protection (LTOP). This specification controls the alignment of the HPSI pumps to ensure that an adequate relief path is available before more than one HPSI pump is aligned to the reactor coolant system. Applicable criteria are specified for the alignment of two HPSI pumps; however, no allowance is made for the alignment of all three HPSI pumps. At the time of this event, the reactor vessel head was removed to support activities associated with the current outage. With the reactor vessel head removed, overpressurization of the RCS would have been impossible had all three HPSI pumps been operated. Therefore, this event was not safety significant.

IV. Corrective Action

As a result of this event, the following actions have been, or will be, performed.

1. Upon discovery of this event, actions were immediately taken to comply with Technical Specification 3.1.2.3.
2. The requirements of Operations Department Instruction (ODI) 1.35, "Response to Personnel Error Events," have been completed by Operations Management to address the personnel error.
3. The procedures for the monthly operating and inservice testing of the HPSI pumps have been revised to include HPSI and charging pump alignment requirements. Additionally, similar changes will be made to the ECCS flow verification surveillance procedure prior to its use.

V. Additional InformationSimilar Events

No previous similar events were identified that resulted in violating the HPSI system LTOP requirements.

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