

# 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

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January 18, 1994  
MP-94-37

DONALD B. MILLER, Jr.  
SENIOR VICE PRESIDENT - MILLSTONE

Re: 10CFR50.73(a)(2)(ii)

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

Reference: Facility Operating License No. NPF-49  
Docket No. 50-423  
Licensee Event Report 93-022-00

Gentlemen:

This letter forwards Licensee Event Report 93-022-00 required to be submitted within thirty (30) days pursuant to 10CFR 50.73(a)(2)(ii).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Donald B. Miller, Jr.  
Senior Vice President - Millstone Station

DBM/RLM:dir

Attachment: LER 93-022-00

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

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940201017B 94011B  
PDR ADOCK 05000423  
S PDR

# LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), 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 3	DOCKET NUMBER (2) 05000423	PAGE (3) 1 OF 3
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TITLE (4)  
Unlocked Manual Containment Isolation Valve Due to Equipment Interface

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
12	19	93	93	022	00	01	18	94		05000
										05000

OPERATING MODE (9) 1

POWER LEVEL (10) 100

THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.96(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.96(c)(2)	50.73(a)(2)(vi)	OTHER
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iv)	X 50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME William J. Temple, Site Licensing	TELEPHONE NUMBER (Include Area Code) (203) 437-5904
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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)	X NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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**ABSTRACT** (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On December 19, 1993, at 0850 with the plant in MODE 1 (Run) at 100% power, a manual containment isolation valve was discovered unlocked. The valve was found closed but not locked as required. The valve is one of two manual containment isolation valves on a Hydrogen Recombiner (HCS) two-inch supply line.

The root cause of the condition is an interface design/equipment condition resulting in a personnel error. The padlock that was in place was determined to be not securely locked, although it previously had appeared and felt locked due to the locking cap holding the shank of the lock securely against the padlock body.

As immediate corrective action the valve was verified to be in the required closed position, the padlock was securely locked, and all other valves in the hydrogen recombinder building were verified to be securely locked as required. As action to prevent recurrence, the padlocks have been replaced with long-shank padlocks, which cannot be held in the apparent locked position by the locking cap, without being fully locked.

**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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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 3	DOCKET NUMBER (2)  05000423	LER NUMBER (6)			PAGE (7)  02 OF 03
		YEAR 93	SEQUENTIAL NUMBER -- 022 --	REVISION NUMBER 00	

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

I. Description of Condition

On December 19, 1993, at 0850 with the plant in MODE 1 (Run) at 100% power, a plant equipment operator (PEO) during rounds found that valve 3HCS\*V9 had an unlocked padlock that was held in place by the locking cap.

The valve is a manual outside containment isolation valve on the two-inch supply line to the Hydrogen Recombiner 1B. A management review determined that the required action of Technical Specification 4.6.1.1, "Primary Containment - Containment Integrity," had not been satisfied since the valve was not locked and secured in its position. As immediate corrective action the valve was verified to be in the required closed position, the padlock was securely locked, and all other valves in the hydrogen recombiner building were verified to be securely locked as required.

II. Cause of Condition

The root cause of the condition is an interface design/equipment condition resulting in a personnel error. The padlock that was in place was determined to be not securely locked, although it appeared and felt locked due to the locking cap holding the shank of the lock securely against the padlock body.

Technical Specification 4.6.1.1 contains a provision that allows manual isolation valve 3HCS\*V9 to be opened on an intermittent basis under administrative control. This provision is to allow a flow path to be established for periodic functional testing of the hydrogen recombiner system. The testing conducted under Surveillance Procedure SP 3613A.1 requires an independent verification that 3HCS\*V9 is locked closed following the test. This surveillance was last performed on November 21, 1993, and V9 was verified to be locked closed at that time. This valve was also verified to be locked closed as late as December 16, 1993 by a control room operator (CO), while performing rounds to verify locker valves. On December 19, 1993, the PEO found that valve 3HCS\*V9 had an unlocked padlock held in place by the locking cap. An investigation and management review on December 23, 1993, determined that the short-shank padlock in use at the time could be installed in such a manner that the body of the padlock and the shank are held in place by the locking cap covering the valve handwheel. In this position the design deficiency of the short-shank padlock being held in place by the locking cap, is such that the padlock appears and feels locked when in fact is is not locked.

III. Analysis of Condition

This condition is being reported in accordance with 10CFR50.73(a)(2)(ii), as an operation or condition prohibited by Technical Specifications.

Final Safety Analysis Report Section 6.2.4.1.4, "Design Requirements for Containment Isolation Barriers," states that containment isolation valves under "administrative control" are required to be locked closed. The hydrogen recombiner system must be capable of operating after a DBA. The containment isolation valve arrangement for the hydrogen recombiner two-inch suction lines consists of a check valve inside containment and two locked-closed, manually operated valves outside the containment. This arrangement meets the intent of General Design Criterion 56 "Primary Containment Isolation" and deviates from the standard arrangement to ensure reliability of operation after the LOCA, as described in FSAR Section 6.2.4.2, "System Design." GDC 56 provides for "administrative control" on valves of this type.

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FACILITY NAME (1)  Millstone Nuclear Power Station Unit 3	DOCKET NUMBER (2)  05000423	LER NUMBER (6)			PAGE (3)  03 OF 03
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		93	-- 022 --	00	

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

The surveillance requirements for containment isolation valves are specified in Technical Specification Section 4.6.1.1. This section states that primary containment integrity shall be demonstrated at least once per 31 days by verifying that all penetrations not capable of being closed by automatic systems or operator actions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions. Valve 3HCS\*V9 was discovered to be not locked (i.e., not secured) on December 19, 1993. It was determined that V9 could have been in an unlocked position since the previous hydrogen recombiner functional test that was conducted on November 21, 1993. This condition could have existed despite verification that the valve was locked on November 21, 1993 and December 16, 1993, due to the locking cap holding the shank of the lock securely against the padlock body.

There were no significant safety consequences due to this condition. 3HCS\*V9 was immediately verified to be in its required closed position. The redundant isolation valve 3HCS\*V10 was verified to be isolated and securely locked. All other valves in the hydrogen recombiner building were verified to be securely locked as required.

IV. Corrective Action

As immediate corrective action, valve 3HCS\*V9 was verified to be in the required closed position, the padlock was securely locked, and all other valves in the hydrogen recombiner building were verified to be securely locked as required. As action to prevent recurrence, the Master-Lock short-shank model padlocks have been replaced with long-shank padlocks, which cannot be held in the apparent locked position by the locking cap, without being fully locked.

V. Additional Information

There have been no LERs similar to this condition.

EIS Codes

<u>System</u>	<u>Component</u>
Containment Combustible Gas Control - BB	Valve, Isolation (Manual) - ISV