

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

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203)655-5000

Re: 10CFR50.73(a)(2)(i)
August 7, 1992
MP-92-837

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

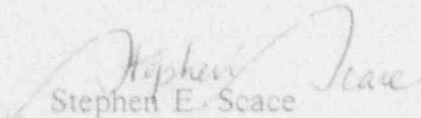
Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Licensee Event Report 92-011-00

Gentlemen:

This letter forwards Licensee Event Report 92-011-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(i).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY


Stephen E. Seace
Vice President - Millstone Station

SES/PL:ljs

Attachment: LER 92-011-00

cc: T. T. Martin, Region I 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 (B-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 1 0 0 0 3 3 6 1** PAGE (3) **OF 0 4**

TITLE (4) **Combined Leakage Rate Exceeded**

| 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 7 | 1 0 | 9 2 | 9 2 | 0 1 1 | 0 0 | 0 8 | 0 7 | 9 2 | 0 5 1 0 0 0 0 0 0 0 0 | | |
| THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following): (11) | | | | | | | | | | | |

| | | | | |
|-------------------------------|-------------------|--|---------------------|--|
| OPERATING MODE (9) 5 | 20.402(b) | 20.402(c) | 50.73(a)(2)(iv) | 73.71(b) |
| POWER LEVEL (10) 0 0 0 | 20.405(a)(1)(i) | 50.38(c)(1) | 50.73(a)(2)(iv) | 73.71(c) |
| | 20.405(a)(1)(ii) | 50.38(c)(2) | 50.73-(v)(2)(vii) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | 20.405(a)(1)(iii) | <input checked="" type="checkbox"/> 50.73(a)(2)(i) | 50.73(a)(2)(vii)(A) | |
| | 20.405(a)(1)(iv) | 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)(ix) | |

LICENSEE CONTACT FOR THIS LER (12)

NAME **Peter Lessard, Engineer Ext. 6066** TELEPHONE NUMBER **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 |
|-------|--------|-----------|--------------|-------------------|-------|--------|-----------|--------------|-------------------|
| B | B | I S V F | 1 2 5 | Yes | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14) YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) **1 2 3 1 9 2**

ABSTRACT (Limit to 400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

The plant was in mode 5, at zero percent power level, RCS temperature was 103 degrees Fahrenheit, and RCS pressure was 0 psig. Type B and C containment leakage rate testing was being performed in accordance with Technical Specification surveillance requirement 4.6.1.2d. On June 9, 1992, a leakage rate test of the containment Hydrogen Purge piping isolation valves may have exceeded the combined leakage rate limit of Technical Specification 3.6.1.2b. The leakage rate was such that the test volume could not be pressurized to the accident pressure for testing. This event was originally identified as being not reportable. On July 10, 1992, during the duty officer review of a similar Type C test failure, it was determined that this event should be considered reportable, per the requirements of 10CFR50.73(a)(2)(i)(b).

The outer isolation valve was disassembled. Inspection revealed that the keys connecting the hand operator and the air operator to the valve shaft had been sheared off. The key connecting the air operator to the shaft became wedged so that the valve still operated, but caused improper seating of the valve disc. Repairs were completed and subsequent valve cycling resulted in failure of the keys again. Investigation of the cause is ongoing.

The root cause of the leakage through the outer isolation valve is due to failure of the key connecting the air operator, which allowed slight misalignment of the valve disc/seat interface.

Investigation is continuing to determine whether containment leakage integrity was maintained by the inner isolation valve or if there are any other potential safety implications resulting from this event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 30-45 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (p-530), U.S. Nuclear Regulatory Commission, Washington, DC 20543, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

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|--|--|----------------|-------------------|----------------------------|
| FACILITY NAME (1) Millstone Nuclear Power Station Unit 2 | DOCKET NUMBER (2) 0 5 0 0 0 3 3 6 9 2 | LER NUMBER (3) | | PAGE (3) 0 2 OF 0 4 |
| | | YEAR | SEQUENTIAL NUMBER | |

TEXT (if more space is required, use additional NRC Form 356A's) (17)

I. Description of Event

The plant was in Mode 5, shutdown for refueling operations and steam generator replacement. Reactor Coolant System (RCS) temperature was 103 degrees Fahrenheit and pressure was 0 psig. Type B and C leakage rate testing was in progress. On June 9, 1992, one of the two Containment Hydrogen Purge penetrations was being leak rate tested (see the attached diagram for the valve line-up). An attempt was made to pressurize the penetration volume to accident pressure ($P_a = 54$ psig) through valve 2-EB-121. Test pressure could not be attained and the source of the leak was investigated. The plant leak test personnel identified a leak path through valve 2-EB-99 by observing flow indicated on FI 8.6 and by hearing air escaping through that valve. At the time of the test, the leakage integrity of the inner isolation valve, 2-EB-100, could not be confirmed due to the lack of other isolation valves in this line. This event was originally classified as not reportable but was re-classified on July 10, 1992, as being reportable because the penetration leak rate exceeded the measurement capabilities of the test equipment, thereby making it impossible to determine whether or not the combined leak rate limit (0.6 La) was exceeded.

II. Cause of Event

The root cause of this event is failure of the key connecting the air operator to the valve shaft, which allowed slight misalignment of the valve disc/seat interface, resulting in excessive leakage.

The suspected causes of the failure are either over-tightening of the air operator return spring or improper engagement of the manual operator disengaging lever while positioning the valve with the air operator. It is believed that either of these could cause the damage to the valve operator connecting key and subsequent misalignment of the valve disc. The manual operator disengaging lever only applies to valve 2-EB-99, as valve 2-EB-100 has no manual operator.

Additional root cause investigation will be conducted should the post-repair LLRT indicate the need.

III. Analysis of Event

These valves are located on the Containment Hydrogen Purge line and are normally closed except during periodic containment venting operations. Since the leakage integrity of the inner isolation valve has not yet been quantified, it has not been determined if there are any safety implications as a result of this event. This event is reportable per the requirements of 10CFR50.71(a)(2)(i)(b).

IV. Corrective Action

Valve 2-EB-99 was disassembled and inspected. The inspection revealed the keys connecting the manual and air operators to the valve shaft had been sheared off. The air operator connecting key was wedged such that the valve still operated but the valve seat was misaligned. The damaged keys were replaced and the air operator linkage was properly adjusted. Valve cycling subsequent to repair has again resulted in shear of the keys. Investigation of the cause continues. Result will be addressed in the supplemental report.

Leak rate testing of the balance of the containment penetrations is continue and the overall results will be addressed in the supplemental report.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 30.0 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

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| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| Millstone Nuclear Power Station Unit 2 | 0500033692 | -- | 0111 | -- | 00 | 03 OF 04 |

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

V. Additional Information

Valve information:

2-EB-99: Fisher 6" Class 2 - 150 lb. Offset Tee Ring valve with Fisher #656-40 actuator (power end) and Phil. Gear # HOB hand operator (back end).

2-EB-100: Fisher 6" Class 2 - 150 lb. Offset Tee Ring valve with Fisher #481-15-30 actuator

Similar Events: 90-019, 89-003, 88-006, 86-012, 85-003, 84-005, 82-006, 80-032, 79-034

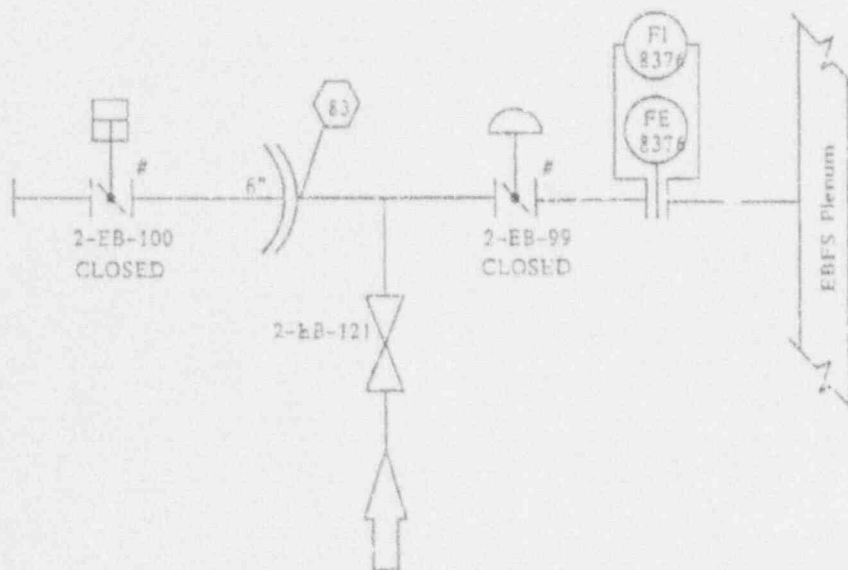
EHS Code: BB

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-330), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

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| FACILITY NAME (1) Millstone Nuclear Power Station Unit 2 | DOCKET NUMBER (2) 01500003J693 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | 93 | 0111 | 00 | 04 | OF 04 |

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



- 3) Penetration must be drained prior to testing.
- 2) Signifies OPEN valve. Signifies CLOSED valve.
- 1) Valves shown (#) must be stroked full open, then full closed in the normal operating manner (eg. MOV with control switch) prior to testing.

| | |
|--------------------------------------|------------|
| LOCAL LEAK RATE TEST VALVE LINEUP | |
| Penetration 1.3 2-EB-99, 100 | |
| P&ID 26026 | Figure 9.8 |