

EXPIRES 04/30/99

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 (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.

FACILITY NAME (1) Millstone Nuclear Power Station Unit 2		DOCKET NUMBER (2) 05000336	PAGE (3) 1 OF 4
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TITLE (4)
Safety Injection Recirculation Header Piping Components Do Not Fully Satisfy Inservice Inspection Requirements in Accordance with ASME Code Section XI Criterion

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
09	29	98	98	-- 020 --	00	10	16	98	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9) N

POWER LEVEL (10) 000

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

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 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 Regulatory Compliance Manager	TELEPHONE NUMBER (Include Area Code) (860) 440-2080
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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)				X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).									

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

On September 1, 1998, with the unit defueled, it was identified by external oversight that a potential discrepant condition exists involving the omission of the common engineered safety features pump Safety Injection (SI) recirculation header piping components from the Inservice Inspection (ISI) testing program and as such, may not have been subjected to ISI testing as required by Technical Specification 4.0.5. On September 29, 1998 it was determined that from 1977 to the present, although the SI recirculation header piping components were routinely "open flow" tested to meet the requirements of IWC-5200, certain portions of the piping had not been VT-2 tested pursuant to Section XI, Article IWW-5000 of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.

The root cause for this condition can be attributed to lack of ISI Test Program ownership and centralized process control of implementing groups that perform Section XI activities.

As corrective actions, the lack of ISI Test Program ownership and centralized process control, identified from an earlier 1998 condition report, will be dispositioned via the Millstone corrective action program. In addition, the applicable SI leakage test procedure will be revised to include the SI recirculation header piping and leakage testing will be performed.

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I. Description of Event

On September 1, 1998, with the unit defueled, it was identified by external oversight that a potential discrepant condition exists involving the omission of the common engineered safety features (ESF) [JE] pump Safety Injection (SI) recirculation header piping components from the Inservice Inspection (ISI) testing program and as such, may not have been subjected to ISI testing as required by Technical Specification (TS) 4.0.5, and prescribed in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code and applicable Addenda.

Technical Specification 4.0.5 (a) states, "Inservice inspection of ASME Code Class 1, 2, and 3 components and Inservice testing ASME Code Class 1, 2, and 3 pumps [P] and valves [V] shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i)."

The purpose of the SI test header is to return a minimum flow from each operating High Pressure Safety Injection (HPSI) [BQ], Low Pressure Safety Injection (LPSI) [BP] and Containment Spray (CS) [BE] pump to the Refueling Water Storage Tank (RWST). As reported to the Nuclear Regulatory Commission (NRC) in June 1976 (Reference: Reportable Occurrence 50-336/76-38/1T), loss of flow through the SI test header could have adversely affected ESF pump operation. As a corrective action to 50-336/76-38/1T, in 1977 the SI header piping supports were upgraded to seismic class 1, however, the report submittal did not address ISI examination and testing of the mini-flow line (Note: ISI testing of ASME Class 2 and 3 piping was not required at that time although this testing policy changed later that year). The subject components were initially constructed to ANSI code standards and subsequently reviewed pursuant to Safety Guide 26.

A review of the Unit 2, First, Second and Third Ten Year Interval ISI/NDE Programs was conducted to determine the scope of applicable ASME Section XI ISI/NDE requirements that may have been missed during these intervals. It was concluded that pursuant to applicable ASME Code Editions and Addenda (Add.) for the First (1974 S75 Add.), Second (1980 W81 Add.), and Third (1989 no Add.) Ten Year Intervals, the subject SI test header piping and components would have been exempt from the requirements of Article IWC-2000.

On September 29, 1998 it was determined that from 1977 to the present, although the SI recirculation header piping components were routinely "open flow" tested to meet the requirements of IWC-5200, certain portions of the piping had not been VT-2 tested pursuant to Section XI, Article IWW-5000 of the ASME Code. Since ISI testing relief had not been granted from the NRC for the specific ASME Section XI discrepancy identified, this condition represented a failure to adequately test piping components in accordance with ASME Section XI code criteria as required by TS 4.0.5. Consequently, this condition is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specifications.

Since the SI recirculation header piping components are not required to be operable in the current mode, there were no immediate operator actions required.

II. Cause of Event

As concluded from an earlier 1998 root cause evaluation performed for previously identified ISI Program related discrepancies, the root cause for this condition can similarly be attributed to lack of ISI Test Program ownership and centralized process control of implementing groups that perform Section XI activities. In this case, although

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ISI testing of the SI mini-flow line was not performed (inspection of ASME Class 2 and 3 piping was not required when the supports were upgraded in 1977), when the ASME Code testing policy changed later that year to include Class 2 and 3 piping, the subject components were not revisited and appropriately included in the ISI Test Program.

III. Analysis of Event

Failure to comply with applicable portions of ASME Section XI, could result in a failure to recognize degraded pressure boundary components. Unmonitored system component leakage could reduce sump inventory and therefore, adversely affect ESF pump (HPSI, LPSI, or CS) operation. In mitigation of this condition, prior flow testing conducted for the SI piping components have not identified issues that would have adversely affected the SI mini-flow test header component piping. Although this condition did not satisfy appropriate portions of the ASME Section XI criteria, it is reasonable to assume that historically, these piping components would have been able to perform their design function and would continue to do so in the future. Consequently, this condition is of low safety significance.

IV. Corrective Action

The lack of ISI Test Program ownership and centralized process control, identified from an earlier 1998 condition report, will be dispositioned via the Millstone corrective action program.

The following corrective actions will be performed prior to entering Mode 4 from the current outage:

1. The Emergency Core Cooling System/Safety Injection (SI) leakage testing procedure will be revised to include the SI recirculation header piping.
2. The revised Emergency Core Cooling System/Safety Injection leakage testing procedure will be performed.

V. Additional Information

None

Similar Events

The following previous licensee event reports involved the ISI testing related deficiencies:

- 76-38/1T Initially reported a condition where the SI Test Header had been determined to perform a safety function and as such should be seismic class 1. The cause of the condition was design error in that the effects of a small-break condition were not adequately analyzed in the ESF pump recirculation requirements. Corrective actions were to raise the level in the RWST to compensate for the condition and provide additional margin to provide a safe shutdown under all assumed conditions. Additionally, the mini-flow line to the RWST piping supports were upgraded to seismic class 1.
- 97-024 Reported a condition involving the Snubber [SNB] ISI Program where it was determined that during the Second Ten Year Interval, both repair/replacement plans and rotation from Quality Assurance (QA) spares (required for snubber replacement), were not performed in accordance with ASME Section XI code requirements. The cause of this condition was a misinterpretation and wrong assumption

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concerning the ASME Section XI requirements for snubber repair/replacement plans. Corrective actions were specific to the ISI snubber program deficiencies and would not have prevented this condition.

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