

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 (1-
8 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 3

DOCKET NUMBER (2)

05000423

PAGE (3)

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TITLE (4)

Inadequate Surveillance for Determining Shutdown Margin When Unisolating a Reactor Coolant Loop,
Due to Procedure Inadequacy

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
03	10	96	96	002	00	04	08	96	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		100	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

William J. Temple, Nuclear Licensing Supervisor

TELEPHONE NUMBER (Include Area Code)

(860)437-5904

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	C. JSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO
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EXPECTED
SUBMISSION

MONTH	DAY	YEAR

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

On March 10, 1996, with the plant in Mode 1 at 100-percent power, operations personnel discovered that an inadequate surveillance procedure had been historically used for determining reactor shutdown margin when unisolating a Reactor Coolant Loop. A review determined that there was at least one occasion which resulted in a noncompliance with surveillance requirements. Specifically, on May 26, 1995, at 0239 hours, with the plant in Mode 5 at 0-percent power, the cold leg stop valve on Loop 3 of the Reactor Coolant System (RCS) was opened without adequately verifying the reactor was subcritical by a required value within 30 minutes prior to opening the valve.

This was a noncompliance with Technical Specification 4.4.1.6.2, which requires that, "the reactor shall be determined to be subcritical by at least the value required by Specifications 3.1.1.1.2 or 3.1.1.2 for Mode 5... within 30 minutes prior to opening the cold leg stop valve."

There was no safety significance to returning the isolated RCS loop to service. The surveillance verified the boron concentration in the isolated loop was greater than the RCS boron concentration, and both were greater than 2600 ppm as required by procedure. The reactor was subcritical by the required margin before, during, and after the event.

As corrective action, changes will be made to the Technical Requirements Manual, the operating procedure, and the surveillance procedure, to clarify the requirements for meeting Specification 4.4.1.6.2. In addition, a change will be proposed to clarify Specification 4.4.1.6.2. This event was discovered during a review of conditional surveillances. No other reportable events or conditions have been identified to-date. The conditional surveillance review will be completed.

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

I. Description of Event

On March 10, 1996, with the plant in Mode 1 at 100-percent power, a Shift Technical Advisor discovered that an inadequate surveillance procedure had been historically used for determining shutdown margin when unisolating a Reactor Coolant Loop. This discovery was made during a planned conditional surveillance review, which was being done to ensure conditional surveillance procedures were adequate. A subsequent review determined that there was at least one historical occasion where the inadequate procedure resulted in a noncompliance with Technical Specification surveillance requirements. Specifically, on May 26, 1995, at 0239 hours, with the plant in Mode 5 at 0-percent power, the cold leg stop valve on Loop 3 of the Reactor Coolant System (RCS) was opened without performing a surveillance to verify the reactor was subcritical by the amount required by Technical Specification 3.1.1.1.2 or 3.1.1.2 within 30 minutes prior to opening the valve.

This condition resulted in a noncompliance with Technical Specification 4.4.1.6.2. Technical Specification 4.4.1.6.2 requires that, "the reactor shall be determined to be subcritical by at least the value required by Specifications 3.1.1.1.2 or 3.1.1.2 for Mode 5 or Specification 3.9.1.1 for Mode 6 within 30 minutes prior to opening the cold leg stop valve."

At the time of the May 26, 1995 event, the RCS was being cooled by the Residual Heat Removal (RHR) system. Although the 30-minute requirement in Surveillance 4.4.1.6.2 was not met, the corresponding Limiting Conditions for Operation in 3.4.1.6 were met. The boron concentration in the RCS was 2770 ppm, the boron concentration in Loop 3, which was to be restored, was 2856 ppm, and the required boron concentration was 2600 ppm. The isolated loop Tc was 90 degrees Fahrenheit and the highest operating loop Tc was 96 degrees Fahrenheit.

II. Cause of Event

This event is attributed to a procedure inadequacy. The surveillance procedure for implementing the Technical Specification had as an acceptance criterion that, "The reactor is subcritical by at least the value required by T.S. 3.1.1.1.2 or 3.1.1.2 for Mode 5 or T.S. 3.9.1.1 for Mode 6 within 30 minutes prior to opening cold leg stop valve." Operations personnel were aware of this requirement.

The data recorded on the surveillance form showed that the RCS boron concentration and the loop boron concentration were more than 150 ppm greater than the required concentration. Upon reviewing the surveillance data the operator concluded that the surveillance was performed. However, the time requirement of 30 minutes for opening the cold leg stop valve was exceeded by between 3 and 13 minutes depending upon subsequent interpretation of when the reactivity determination was made and when the cold leg stop valve was considered open. The form did not require comparing the interval to the 30-minute acceptance criterion, nor did it identify if "valve opening" was initiation of the open stroke (when flow could first occur), or achieving a full open final position.

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

III. Analysis of Event

There was no safety significance to returning the isolated RCS loop to service in this event. The surveillance that was performed had verified that the boron concentration in the isolated loop was greater than the RCS boron concentration, and both were greater than 2600 ppm as required by procedure. Additionally, the requirements of Technical Specification 3.4.1.6 were met. The reactor was subcritical by the required margin before, during, and after unisolation of the loop.

IV. Corrective Action

As corrective action, changes will be made to the Technical Requirements Manual, the operating procedure, and the surveillance procedure, to clarify the requirements for meeting Specification 4.4.1.6.2. In addition, a change will be proposed to clarify Specification 4.4.1.6.2. This event was discovered during a review of conditional surveillances. No other reportable events or conditions have been identified to-date. The conditional surveillance review will be completed.

V. Additional Information

None.

Similar Events

This event is being reported as an historical event. LER 95-021-00 which was submitted on January 5, 1996 occurred subsequent to this event but is similar. LER 95-021-00 involved an inadequate surveillance procedure for unisolating a Reactor Coolant Loop when all four RCS loops are isolated in Cold Shutdown. The corrective actions taken since the recent LER 95-021-00, could not have prevented the historical event reported herein.

Manufacturer DataEIIS System Codes

Reactor Coolant System - AB

EIIS Equipment Codes

None