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The Northeast Utilities System

MAR 15 2000

Docket No. 50-336
B18017

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

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

Millstone Nuclear Power Station, Unit No. 2
Licensee Event Report 2000-004-00
Failure to Perform Channel Check for
Wide Range Logarithmic Neutron Flux Monitor

This letter forwards Licensee Event Report (LER) 2000-004-00, documenting an event that occurred at Millstone Nuclear Power Station, Unit No. 2, on February 14, 2000. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i).

The Northeast Nuclear Energy Company (NNECO) regulatory commitments contained in this letter are located in Attachment 1.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

C. J. Schwarz
Station Director

Attachments: 1. List of Regulatory Commitments
2. LER 2000-004-00

cc: H. J. Miller, Region I Administrator
J. I. Zimmerman, NRC Project Manager, Millstone Unit No. 2
D. P. Beaulieu, Senior Resident Inspector, Millstone Unit No. 2

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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

List of Regulatory Commitments

March 2000

List of Regulatory Commitments

The following table identifies actions committed to by NNECO in this document.

Number	Commitments	Due
B18017-01	A formal briefing shall be conducted for applicable operations shift personnel on this event.	April 22, 2000
B18017-02	The applicable surveillance procedure shall be revised to clarify when a channel check is required in Mode 5 for the Wide Range Neutron Flux Monitoring Instrumentation.	April 22, 2000

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Attachment 2

Millstone Nuclear Power Station, Unit No. 2

LER 2000-004-00

March 2000

NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

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

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TITLE (4)
Failure to Perform Channel Check for Wide Range Logarithmic Neutron Flux Monitor

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
02	14	2000	2000	-- 004 --	00	03	15	2000	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)
POWER LEVEL (10)	000		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	TELEPHONE NUMBER (Include Area Code)
R. Joshi, MP2 Acting Regulatory Compliance Supervisor	(860) 440-2080

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

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

On February 15, 2000, at approximately 1400 hours, it was identified that a channel check for the Wide Range Logarithmic Neutron Flux Monitors was not performed on February 14, 2000 as required by the facility Technical Specifications (TS).

The cause of this event was a misjudgment by Operations shift personnel. This was caused by the Control Operators (CO) and the Shift Manager (SM) misinterpreting the TS mode applicability and failing to perform the required surveillance. The wording of the TS mode applicability contributed to the CO and SM reaching their conclusion.

To correct this deficiency, a briefing shall be performed on Technical Specification LCO applicability and applying "Not Applicable" in procedural steps. Additional corrective action include revising the applicable surveillance procedure to clarify when a channel check is required.

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

I. Description of Event

On February 15, 2000, at approximately 1400 hours, it was identified that a channel [CHA] check for the Wide Range Logarithmic Neutron Flux Monitors [MON] [IG] was not performed on February 14, 2000 as required by the facility Technical Specifications (TS). At the time of discovery of this event the plant was in Mode 5 at 0 percent power.

TS 4.3.1.1, Table 4.3-1, Item 11, requires a channel check be performed for the Wide Range Logarithmic Neutron Flux Monitors once every 12 hours. To ensure that twelve hour surveillances are performed in a timely manner, these surveillances are performed once every six hours, or twice per shift. On February 14, 2000, between 0600 - 1200 hours, a control operator (CO) under instruction (U/I) was preparing to perform a Wide Range Logarithmic Neutron Flux Monitors channel check. Prior to performing the channel check, the CO (U/I) questioned whether the channel check was required based on current plant conditions and the mode applicability indicated on the log sheet from the surveillance procedure. The log sheet, which is applicable in Mode 5 only, states that the channel check is required to be performed in modes "5 and *." The notation on the log sheet defines "*" as "With reactor [RCT] trip breaker [BKR] closed." The CO U/I reviewed the applicable surveillance procedure and reviewed the applicable TS surveillance requirement, TS 4.3.1.1, Table 4.3-1, Item 11, with the CO who was supervising the CO U/I.

TS 4.3.1.1, Table 4.3-1, Item 11, requires a channel check be performed in Modes "3, 4, 5 and *." The LCO requires the Wide Range Logarithmic Neutron Flux Monitor - Shutdown to be operable in modes "3, 4, 5". A review of historical license amendments associated with TS 3.3.1.1 was performed and it was determined that the "*" should have been removed from Table 4.3-1, Item 11 when it was removed from Table 3.3-1, Item 11 (1978 TS amendment). Previous to the 1978 TS amendment, the plant design utilized the Wide Range Logarithmic Neutron Flux Monitors in modes "1, 2 and *" to trip the reactor for a high rate of change of power. The 1978 TS amendment, which removed the protective trip function, removed the "*" from the mode applicability column of Table 3.3-1 but failed to remove the "*" from the associated surveillance requirement in Table 4.3-1.

After reviewing TS 4.1.1, Table 4.3-1, Item 11, the two operators concluded that the "*" was a limitation on mode 5 applicability, and that the channel check is only required to be performed in mode 5 when the reactor trip breakers are closed. Since the reactor trip breakers were open, the channel check was not considered necessary. The CO U/I marked the applicable surveillance procedure step NA and the channel check was not performed. The CO discussed the NA of the channel check with the Shift Manager (SM) when the 0600 to 1200 hours log sheet was submitted for the SMs acceptance, who concurred with the interpretation. The channel check for the Wide Range Logarithmic Neutron Flux Monitors was also marked NA for the second half of the same shift, 1200-1800 hours. The error was discovered by the next shift while performing the 1800-2400 hours surveillance checks.

A review of the daily surveillance logs shows that the time interval between when the channel check was accepted by the SM for the previous shift (0420 hours) and when the channel check was accepted by the SM for the following shift (2222 hours) was eighteen hours and two minutes, three hours and two minutes beyond the TS allowable limit of fifteen hours (twelve hours plus the 25 percent allowable extension period). Therefore, this event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), as an operation or condition prohibited by the plant's Technical Specifications.

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

II. Cause of Event

The cause of this event was a misjudgment by Operations shift personnel. This was caused by the CO and the SM misinterpreting the TS mode applicability and failing to perform the required surveillance. The wording of the TS mode applicability contributed to the CO and SM reaching their conclusion.

III. Analysis of Event

The four wide range neutron flux monitoring channels provide power indication from less than 1E-7 percent power to greater than 100 percent power. By monitoring neutron flux power when the reactor trip circuit breakers are open, loss of SHUTDOWN MARGIN caused by a boron dilution can be detected as an increase in flux. Upon discovery of the failure to perform the channel check, a channel check was performed which showed that three channels were OPERABLE (one channel was inoperable as allowed by the Technical Specifications). Since three channels of wide range neutron flux monitoring instrumentation were operable during this event and since only one frequency of TS required channel checks was missed, 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. A formal briefing shall be conducted for applicable operations shift personnel on this event. This activity shall be completed by April 22, 2000.

2. The applicable surveillance procedure shall be revised to clarify when a channel check is required in Mode 5 for the Wide Range Neutron Flux Monitoring Instrumentation. This activity shall be completed by April 22, 2000.

In addition, other corrective actions are being addressed via the Millstone Corrective Action Program.

V. Additional Information

Similar Events

Previous similar events involving failure to perform TS surveillances include:

LER 2000-002: This LER identified that the Technical Specification Surveillance Requirement (SR) for TS 3.9.7, "Crane Travel - Spent Fuel Storage Pool Building," was not performed during fuel handling operations. A prerequisite of the Spent Fuel Pool Handling Operations procedure called out testing of Cask Crane Interlocks within 72 hours prior to initiation of irradiated fuel handling operations. This prerequisite was not performed. The cause of the event was a deficiency in the facility Technical Specifications. The TS Applicability and SR did not meet the intent of the TS. As a result of this event, the conflict between the applicability and the SR will be resolved. Additionally, an interim administrative control was implemented to ensure that the Technical Requirement is satisfied.

LER 1999-016: This LER identified that Technical Specification Surveillance Requirements (TSSR) for seismic instrumentation had not been historically met. The seismic instrumentation TS was subsequently

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relocated to the TRM upon receiving the Nuclear Regulatory Commission's (NRC) approval on July 13, 1999. The surveillance procedure called out calibration of four reeds (out of 12) at each eighteen (18) month interval while the TSSR called out for complete calibration of the recorder every eighteen months. The cause of this event was lack of understanding of the TSSR. Historically, the TSSR requirement for calibration every eighteen months was being used, but the original manufacturer's recommendations for the definition of a calibration were used, in lieu of the TSSR's definition of a CHANNEL CALIBRATION. As a result of this event, a briefing is being conducted to the appropriate I&C Department personnel to discuss the correct interpretation of the TRM Section 4.4, "Seismic Instrumentation," item no. 4, "Response Spectrum Recorder." Additionally, surveillance procedure SP 2405E will be revised to correct the number of reeds to be calibrated per procedure performance.

LER 1999-007: This LER identified that on March 19, 1999 the Reactor Coolant System pressure was increased to greater than 200 psig with Tavg less than 200 degrees Fahrenheit (F), at which time TSSRs to verify primary and secondary coolant temperatures were not performed. TSSR 4.7.2.1 requires that, at least once an hour, verification of the steam generators primary and secondary coolant temperatures be conducted in order to ensure that steam generator pressure induced stresses remain below a maximum allowable fracture toughness stress limit (RT_{NDT}) of 50 degrees F. On March 20, it was discovered that the initial verification had not been conducted within 1-hour, as required, which constitutes a missed surveillance. The cause of this event was attributed to procedural inadequacies and operator inattention to detail. As corrective actions, appropriate Operations personnel were provided with briefings on applicable Mode 4 and 3 Condition Based Surveillances and as necessary, procedures will be revised to assure compliance with TSSR 4.7.2.1 criteria.

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