



Northeast
Nuclear Energy

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Millstone Nuclear Power Station
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The Northeast Utilities System

October 4, 1996
Docket No. 50-423
B15930

Re: 10CFR 50.73(a)(2)(ii)(B)

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

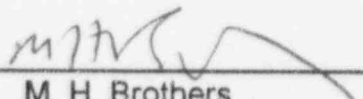
This letter forwards Licensee Event Report 96-030-00, documenting a condition that was determined at Millstone Unit No. 3 on September 5, 1996. This LER is submitted pursuant to 10CFR 50.73(a)(2)(ii)(B).

B15930-01: All applicable procedures utilized for calibration of the Reactor Trip System (RTS) channels will be changed to perform Power Range calibration and testing in conformance with the FSAR design basis. These changes will be instituted prior to entry into Mode 2.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

0630013


M. H. Brothers
Unit Director, Millstone Unit No. 3

Attachment: LER 96-030-00

9610080055 961005
PDR ADOCK 05000423
S PDR

JE22%

cc: H. J. Miller, Region I Administrator
A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3

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 P33), 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

TITLE (4)

Nuclear Instrument Channels Not Tested in Accordance with FSAR requirements

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	
09	05	96	96	030	00	10	05	96	FACILITY NAME	DOCKET NUMBER	
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)								
POWER LEVEL (10)		000	20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)		50.73(a)(2)(viii)
			20.2203(a)(1)			20.2203(a)(3)(ii)			<input checked="" type="checkbox"/> 50.73(a)(2)(ii)		50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(iii)			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

R. T. Laudenat, Nuclear Licensing Supervisor

TELEPHONE NUMBER (Include Area Code)

(860)444-5248

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)		NO		EXPECTED SUBMISSION	MONTH	DAY	YEAR
		<input checked="" type="checkbox"/>					

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

On September 5, 1996, with the plant in Mode 5, plant personnel determined that testing of the Nuclear Instrumentation System (NIS) power range channels was not being performed in accordance with the requirements contained within the unit's Final Safety Analysis Report (FSAR). FSAR section 7.2 states that the NIS power range channels are tested by "superimposing a test signal on the actual detector signal being received by the channel at the time of testing." This is done to maintain the operability of the channel during testing, which would generate a bistable trip in response to any combination of input signals above the trip setpoint. Contrary to this the channel test has been performed by disconnecting the input signal cable, thereby bypassing the channel. This bypass condition is not annunciated on the control boards for the plant as would be required by IEEE standard 279.

This condition was reported at 1618 on September 24, 1996, pursuant to 10CFR50.72(b)(1)(ii)(B) as a condition outside the design basis of the plant.

All applicable procedures utilized for calibration of the Reactor Trip System (RTS) channels will be changed to perform Power Range calibration and testing in conformance with the FSAR design basis. These changes will be instituted prior to entry into Mode 2.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER		REVISION NUMBER	
		96	--	030	--	00
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. Description of Event

On September 5, 1996, with the plant in Mode 5, plant personnel determined that testing of the Nuclear Instrumentation System (NIS) power range channels was not being performed in accordance with the requirements contained within the units Final Safety Analysis Report (FSAR). FSAR section 7.2 states that the NIS power range channels are tested by "superimposing a test signal on the actual detector signal being received by the channel at the time of testing." This is done to maintain the operability of the channel during testing, which would generate a bistable trip in response to any combination of input signals above the trip setpoint. Contrary to this the channel test has been performed by disconnecting the input signal cable, thereby bypassing the channel. This bypass condition is not annunciated on the control boards for the plant as required by IEEE standard 279.

This condition was reported at 1618 on September 24, 1996, pursuant to 10CFR50.72(b)(1)(ii)(B) as a condition outside the design basis of the plant.

II. Cause of Event

The Instrument and Controls Department (I&C) procedural requirement to disconnect the input cable to Reactor Trip System (RTS) during calibration has existed since prior to commercial operation. Discussions with I&C Department personnel involved with the initial procedure development identified that direction had been provided to implement the most accurate method of calibration available. Disconnection of the input cable removed the circuit noise and detector signals. These inputs introduced random signal fluctuations during the calibration. Removal of these random signals allowed for greater accuracy in calibration of the trip set point. Individuals involved in the initial procedure development and in subsequent procedure reviews were not aware of the requirements imposed on the RTS channel calibration test by the FSAR.

III. Analysis of Event

The unit's Safety Evaluation Report (SER) states that the RTS conforms to the design basis requirements of IEEE standard 279, which permits a protection channel to be bypassed for testing provided the bypassed condition is annunciated at the control board. Supporting this determination is WCAP-10271 "Evaluation of Surveillance Frequencies and Out of Service Times for Reactor Protection Instrumentation System" which concluded that it is acceptable to test the RTS instrumentation in a bypassed condition. The NRC staff in its acceptance of WCAP-10271 clarified this by stating: "Testing of RTS analog channels in the bypassed condition by use of temporary jumpers or lifted leads is not acceptable." WCAP-10271 was docketed by the unit as part of the original license submittal and is cited within the applicable portions of the FSAR.

Consistent with the clarification provided from the NRC staff, the Unit FSAR in section 7.2 states that the NIS power range channels are tested by "superimposing a test signal on the actual detector signal being received by the channel at the time of testing." This is done to maintain the operability of the channel during testing, which would generate a bistable trip in response to any combination of input signals above the trip setpoint.

Contrary to this requirement, the I&C calibration procedure utilized for RTS channel calibration requires disconnecting the input signal cable, thereby bypassing the channel. This bypass condition is not annunciated on the control boards for the plant as would be required by IEEE standard 279, and the FSAR.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER		REVISION NUMBER	
		96	--	030	--	00

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05000423

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

Technical Specifications allow the channel to be inoperable provided the channel is placed in a trip condition within 6 hours. The test procedure does not place the channel in trip condition, however, it requires less than approximately 30 minutes per channel to accomplish. The safety consequences are minimal in that the unit has not experienced a valid high power channel trip during performance of the calibration during the period of the license.

IV. Corrective Action

All applicable procedures utilized for calibration of the Reactor Trip System (RTS) channels will be changed to perform Power Range calibration and testing in conformance with the FSAR design basis. These changes will be instituted prior to entry into Mode 2.

V. Additional InformationSimilar Events

LER 93-001-00: Failure to Verify Testing NIS Inputs Into Westinghouse 7300 Process Control System Due to Procedural Deficiency

Manufacturer Data

ELIS System Code
Reactor Trip System - Nuclear Instruments - JC