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 · Selden Street, Berlin Connecticut

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November 21, 1990
MP-90-1244

Re: 10CFR50.73(a)(2)(i)(B)

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

Reference: Facility Operating License No. DPR-21
Docket No. 50-245
Licensee Event Report 90-017-00

Gentlemen:

This letter forwards Licensee Event Report 90-017-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(i)(B).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Stephen E. Scace
Director, Millstone Station

BY: Carl H. Clement
Millstone Unit 3 Director

SES/EAB:ljs

Attachment: LER 90-017-00

cc: T. T. Martin, Region I Administrator
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
M. Boyle, NRC Project Manager, Millstone Unit No. 1

IE22

NRC Form 366
(6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

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-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 1

DOCKET NUMBER (2): 0 5 0 0 0 2 4 5

PAGE (3): 1 OF 0 3

TITLE (4): Main Steam Line Radiation Monitor Hi-Hi Setpoint Set Nonconservative - Due to Procedure Error

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
1 0	2 2	9 0	9 0	- 0 1 7	- 0 0	1 1	2 1	9 0	0 5 0 0 0
									0 5 0 0 0

OPERATING MODE (9): N

POWER LEVEL (10): 1 0 0

THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.402(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: Eric A. Bennett, Engineer, Ext. 5195

TELEPHONE NUMBER: AREA CODE 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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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 fifteen single-space typewritten lines) (16)

On October 22, 1990, at 1545 hours with the plant at 100% power (530 degrees Fahrenheit and 1030 psig), the Main Steam Line Radiation Monitor trip setpoints were determined to be above the Technical Specification 3.2.A Limit.

At approximately 1100 hours on the same day, the setpoints on the radiation monitors had been raised to maximize the margin to the trip, while an exhausted Fuel Pool Demineralizer resin bed was transferred to the Spent Resin Tank. The resin transfer line runs in the vicinity of the radiation monitors and has previously caused increased reading during resin bed transfers. The normal full power background value specified by the resin bed transfer section of surveillance procedure SP 406C, Main Steam Line Radiation Drawer Calibration, was not appropriate for the current fuel cycle. This procedure error resulted in setting the trip setpoint above the Technical Specification limit.

At 1545 hours, upon discovery of the out of specification condition, the Main Steam Line Radiation Monitor trip setpoints were immediately reset to within Technical Specification Limits. During the time the Main Steam Line Radiation Monitor trip setpoints were out of specification (approximately five (5) hours), the main steam line radiation levels remained essentially constant, and well below the Technical Specification limit. Therefore, no safety consequences resulted from this event.

I. Description of Event

On October 22, 1990, at 1545 hours with the plant at 100% power (530 degrees Fahrenheit and 1030 psig), the Main Steam Line Radiation Monitor trip setpoints were determined to be above the Technical Specification 3.2.A Limit.

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At 1545 hours, upon discovery of the out of specification condition, the Main Steam Line Radiation Monitor trip setpoints were immediately reset to within Technical Specification Limits. During the time the Main Steam Line Radiation Monitor trip setpoints were out of specification (approximately five (5) hours), the main steam line radiation levels remained essentially constant, and well below the Technical Specification limit. Therefore, no safety consequences resulted from this event.

The purpose of the Main Steam Line Radiation Monitors is to isolate the Main Steam Lines should radiation levels increase above 7 times normal full power background (NFPB). An increase of this magnitude would be indicative of a fuel element failure. The Main Steam Line Radiation Monitors are set based upon the background radiation in the area of the monitor ion chambers (The ion chambers are located in the steam tunnel area of the Reactor Building). Technical Specifications requires the setpoint for the high radiation trip to be $\leq$ 7 times NFPB. SP 406C, Main Steam Line Radiation Drawer Calibration, is performed upon reaching 100% power following a refueling outage, and on a monthly basis during plant operation. Changes in background radiation are reflected on the procedure's data sheet and the high radiation trips are updated as required.

Prior to the 1989 Refueling Outage, the background radiation levels in the area of the Main Steam Line Radiation Monitor detectors was 450 mR/hr. During this period, surveillance procedure SP 406C (Revision 14) had required the "NORMAL" trip point to be 2700 mR/hr, which corresponds to approximately 6.3 times NFPB when at 100% power. The trip setpoint used during resin bead transfers was 3000 mR/hr, which corresponds to approximately 7 times NFPB when at 100% power.

Following the 1989 Refueling Outage, the background readings in the area of the Main Steam Line Radiation Monitor detectors was found to be 320 mR/hr. The surveillance procedure was updated (Revision 15) to reflect the lower background reading and the "NORMAL" trip setpoint was lowered to 2000 mR/hr. However, the trip setpoint for the resin bead transfers was not changed from 3000 mR/hr to 2100 mR/hr as required. This resulted in erroneously setting the high radiation trip at 3000 mR/hr which corresponds to 9.4 times NFPB, in violation of Technical Specifications.

II. Cause of Event

The cause of this event has been attributed to inadequate procedure review. SP 406C was revised to reflect the NFPB radiation levels for the current fuel cycle (320 mR/hr) in the "NORMAL" trip setting section of the procedure. However the Resin Transfer portion of the procedure continued to reflect the previous fuel cycle NFPB (450 mR/hr) radiation levels. An adequate procedure review would have detected the need to change the Resin Transfer section of SP 406C.

III. Analysis of Event

This event is being reported in accordance with 10CFR50.73 (a)(2)(i)(B) which requires the reporting of any operation or condition prohibited by the plant Technical Specifications. Millstone Unit 1 Technical Specification 3.2.A Primary Containment Isolation Functions requires High Radiation Main Steamline Instruments to be set at ≤ 7 times normal rated power background. During the period in which the Main Steam Line Radiation Monitor trip settings were improper, the Main Steam Line Radiation levels did not change, and therefore no safety consequences resulted from this event.

IV. Corrective Action

The Main Steam Line Radiation Monitor trip setpoints were reset to the correct "NORMAL" trip setpoints.

Recent experience has shown there are no large increases in radiation levels during resin bead transfers, and therefore no need to raise the trip setpoint during resin bead transfers. Based on this, SP 406C was updated to remove the Resin Bead Transfer section of the procedure. This has eliminated the need to change both sections of the procedure in the future should background radiation levels change.

A review will be conducted to ensure programmatic control of cycle dependent parameters. This review will be completed prior to startup following the next refuel outage.

Personnel involved have been briefed to ensure they consider how a change to one section of a procedure, can effect other sections of the procedure or other related procedures.

V. Additional Information

There were no previous similar events.