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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Re: 10CFR50.73(a)(2)(iv)
August 26, 1991
MP-91-694

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

Reference: Facility Operating License No. NPF-49
Docket No. 50-423
Licensee Event Report 91-020-00

Gentlemen:

This letter forwards Licensee Event Report 91-020-00, required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(iv), any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace
Director, Millstone Station

SES/VRJ:ljs

Attachment: LER 91-020-00

cc: T. T. Martin, Region I Administrator
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
D. H. Jaffe, NRC Project Manager, Millstone Unit Nos. 1 and 3

Cert No P266578688
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NRC Form 366
(5-89)

U.S. NUCLEAR REGULATORY COMMISSION

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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Millstone Nuclear Power Station, Unit 3	0 5 0 0 0 4 2 3 1	OF 0 3

TITLE (4)

Inadvertent Main Steam Isolation Signal Due to Wrong Switch Operation Due to Improper Work Practices

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	DOCKET NUMBER(S)
0 7	2 6	9 1	9 1	– 0 2 0	– 0 0	0 8	2 6	9 1		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	4	THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	X 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)	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	TELEPHONE NUMBER
	AREA CODE
Vere R. Joseph, Engineer, Ext. 5571	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 July 26, 1991, at 2258 hours, while in Mode 4 (Hot Shutdown), at 233 degrees Fahrenheit and 380 psia, an inadvertent Main Steam Line Isolation (MSLI) - Engineered Safety Features signal was generated. At the time of the event, a Senior Control Room Operator (SCO) was attempting to reset the Feedwater Isolation (FWI) Signal to support ongoing evolutions during the shutdown. Control Room operators immediately verified that all components actuated as required in response to the MSLI.

Based on the plant computer Sequence of Events (SOE) information, MSLI inputs, and discussions with plant personnel, the root cause of the event is concluded to be improper work practices. The SCO, who was in the process of resetting the FWI signal, inadvertently actuated the MSLI vice the FWI Reset (pushbutton) switch. Although different in color, the MSLI actuation switch is the same type switch and is adjacent to the FWI reset switch on Main Control Board No. 5. The switches are properly labeled.

The importance of self-checking as part of routine work practices is being re-emphasized to all operating shift personnel. Either the MSLI or FWI Reset switch will be modified such that each switch must be operated differently. A practical design modification is being reviewed and evaluated for implementation by December 31, 1991.

I. Description of Event

On July 26, 1991, at 2254 hours, with the plant shutdown in Mode 4 (Hot Shutdown), at 233 degrees Fahrenheit and 380 psia, an inadvertent Main Steam Line Isolation (MSLI) + Engineered Safety Features signal was generated. At the time of the event, a Senior Control Room Operator (SCO) was attempting to reset the Feedwater Isolation (FWI) Signal to support ongoing evolutions during the shutdown.

As immediate corrective action, Control Room operators verified that the Main Steam Isolation Valves and Bypass Valves were closed as required in response to the (MSLI). No further actions were required since the plant was shutdown and in a stable configuration. All components operated as required in response to the event and the event did not significantly impact the ongoing evolutions. After responding to the event, Control Room operators initiated an investigation to determine the source of the MSLI.

II. Cause of Event

After a review of the plant computer Sequence of Events (SOE) information, MSLI inputs, and discussions with plant personnel, the root cause of the event is concluded to be improper work practices (i.e., no self-checking) by the SCO who was in the process of resetting the FWI signal. The SCO inadvertently actuated the MSLI (pushbutton) switch vice the FWI Reset (pushbutton) switch. Although different in color, the MSLI actuation switch is the same type switch and is adjacent to the FWI reset switch on Main Control Board No. 5. The switches are properly labeled.

III. Analysis of Event

This event is being reported pursuant to 10CFR50.73(a)(2)(iv), as any event or condition which resulted in a manual or automatic actuation of any Engineered Safety Feature (ESF). An immediate notification was made in accordance with 10CFR50.72(b)(2)(ii).

The event did not pose a significant challenge to plant safety systems nor did it have any significant safety consequences. The MSLI-ESF actuation is a conservative protection feature. The plant was shutdown and in a stable configuration. Had the event occurred at power, closure of the the Main Steam Isolation Valves would have generated a reactor trip on low-low steam generator level (due to steam generator "shrink"). However, the likelihood of this event occurring while at power is minimal, since a FWI reset is an evolution normally performed while the plant is shutdown to provide feedwater to the steam generators.

IV. Corrective Action

As immediate corrective action, Control Room operators verified that all components actuated as required in response to the MSLI.

The importance of self-checking as part of routine work practices is being re-emphasized to all operating shift personnel.

In addition, either the MSLI or FWI Reset switch will be modified such that each switch must be operated differently. A practical design modification is being reviewed and evaluated for implementation by December 31, 1991.

V. Additional Information

This is the first event in which a plant operator inadvertently manipulated the wrong switch. There have been three other events involving improper switch operation. LER 87-002, "Reactor Trip Due to Accidental Reset of Source Range Channel Block," resulted from the accidentally pushing of a BLOCK/RESET switch while attempting to respond to an annunciator. LER 88-001, "Inadvertent Safety Injection Due to Sensitive Equipment," resulted from the operation of a BLOCK/RESET switch resulting in the spring force of the switch causing over-travel. LER 89-005, "Inadvertent Safety Injection Due to Personnel Error by switch Mispositioning," resulted from incorrect BLOCK/RESET switch positioning. In response to these events, similar type switches on the Main Control Boards were evaluated to identify and correct sensitive switch design and to require two separate (distinct) actions to actuate a RESET or BLOCK. The switches identified as part of the evaluation were replaced prior to completion of the third refueling outage (which ended in April, 1991).

EIIS Codes

Systems
Engineered Safety Features Actuation System - JE

Components
Switch - AS