

# 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 · Seiden Street, Berlin Connecticut

P. O. Box 270  
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(203)665-5000

January 9, 1990  
MP-90-024

Re: 10CFR50.73(a)(2)(iv)

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 89-034-00

Gentlemen:

This letter forwards Licensee Event Report 89-034-00, required to be submitted pursuant to 10CFR50.73(a)(2)(iv), any event or condition that resulted in the automatic actuation of any Engineered Safety Feature.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace  
Station Superintendent  
Millstone Nuclear Power Station

SES/RDC:tp

Attachment: LER 89-034-00

cc: W. T. Russell, Region I Administrator  
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3  
D. H. Jaffe, NRC Project Manager, Millstone Unit No. 3

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LICENSEE EVENT REPORT (LER)

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 3** DOCKET NUMBER (2) **0 5 0 0 0 4 2 3** PAGE (3) **1 OF 0 3**

TITLE (4) **Partial Containment Depressurization Actuation Signal Due to Operator 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	2	1	1	8	0	8	9	0	0	3	4	0	0	0	0	0	0	0	0	0	0	
												0	5	0	0	0	0	0	0	0	0	0

OPERATING MODE (9) **1** THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

POWER LEVEL (10) <b>1 0 0</b>	20.402(b)	20.402(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
	20.405(a)(1)(i)	50.36(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	<input type="checkbox"/>	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)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	
	20.405(a)(1)(iv)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **Robert P. Conway, Senior Engineer, Ext 5642** TELEPHONE NUMBER **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 NPPRS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPRS

SUPPLEMENTAL REPORT EXPECTED (14)  YES (if yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

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

At 2236 hours on December 11, 1989 in Mode 1 at 100% power, 557 degrees and 2250 psia, a partial B Train Containment Depressurization Actuation (CDA) signal was generated by personnel error while conducting Slave Relay Testing. Procedural inadequacy was a contributing factor since the step being executed contained three specific actions not directly related to each other. The operator failed to execute one of the actions in the step, to reset automatic test circuits prior to testing the Containment Spray Actuation circuit. When the test was initiated, the B Train Emergency Diesel Generator Load Sequencer (EGLS) generated a partial B Train CDA signal. Containment spray and water injection into the reactor did not occur because only a partial CDA signal was generated. The operator conducting the test immediately reset the CDA Slave Relay. Operators verified that the CDA signal had occurred only on the B Train and that the CDA was not required. All equipment functioned as designed. The operator conducting the test was counselled on proper execution of procedures, and reviewed operation of the EGLS. The A and B Train Slave Relay Testing procedures were revised to separate the single step, which required three unrelated actions, into three separate steps, and to require positive verification that automatic test circuits have been reset.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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FACILITY NAME (1)  Millstone Nuclear Power Station Unit 3	DOCKET NUMBER (2)  0 5 0 0 0 4 2 3	LER NUMBER (6)			PAGE (3)		
		YEAR 8 9	SEQUENTIAL NUMBER 0 3 4	REVISION NUMBER 0 0			
							0 2 OF 0 3

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

I. Description of Event

At 2236 hours on December 11, 1989 while operating in Mode 1 at 100% power, 557 degrees Fahrenheit and 2250 psia, a partial B Train Containment Depressurization Actuation (CDA) signal was initiated by personnel error while conducting B Train Slave Relay Testing at the B Train Emergency Diesel Generator Load Sequencer (EGLS). The operator failed to properly execute the procedure step which resets automatic test circuits, prior to testing the Containment Spray Actuation circuit. When the test was initiated, the B Train EGLS generated a partial B Train CDA signal. Engineered Safety Features (ESF) equipment automatically started including the B (Train) Emergency Diesel Generator, (B) Quench Spray pump, (B) Safety Injection pump, (B) Auxiliary Feedwater pump, (B) Residual Heat Removal pump, and the standby (C) Charging pump. These equipment actions were proper for the partial CDA signal transmitted by the EGLS. Because only a partial CDA signal was generated, Containment spray and water injection into the reactor did not occur. The operator conducting the test immediately reset the CDA Slave Relay being tested. Immediate actions by control room operators included verifying that the Containment Depressurization Actuation signal had occurred on only the B Train and that a CDA was not required. ESF equipment which automatically started was stopped, and all plant equipment was restored to the proper configuration. Equipment operation was reviewed, and found to be satisfactory.

II. Cause of Event

Root cause of the event was personnel error, in that the operator did not properly execute one step in the procedure. Procedural inadequacy was a contributing factor since the step contained three specific actions not directly related to each other. This contributed to the event by requiring the operator to simultaneously complete several tasks within one procedural step. This allowed completion of one or more actions without accomplishing the entire step.

III. Analysis of Event

This event is reportable under 10CFR50.73(a)(2)(iv) as an event that resulted in the automatic actuation of an Engineered Safety Feature. Immediate notifications were made in accordance with 10CFR50.72(b)(2)(ii). There were no significant safety considerations since the inherently safe design of the ESF actuations system produced a conservative action: generation of a partial CDA signal. This did not affect plant operations or the ability of safety systems to respond to actual plant conditions. Because only a partial CDA signal was generated, containment spray and water injection into the reactor did not occur.

IV. Corrective Action

The operator conducting the test was counselled on proper execution of procedures, and reviewed operation of the Emergency Diesel Generator Load Sequencer. To prevent recurrence, the A and B Train Slave Relay Testing procedures were revised to separate the single step which required three unrelated actions, into three separate steps, and to require positive verification that the EGLS automatic test circuits have been reset. Yellow warning signs stating "CAUTION: THE SEQUENCER WILL NOT STAY IN TEST UNLESS THE AUTO TEST IS RESET" are permanently mounted in the EGLS cabinets. Adequacy of these warning signs was reviewed and found to be satisfactory.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 9	0 3 4	0 0	0 3	OF 0 3

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

V. Additional Information

Three similar events of ESF actuations due to personnel error are described in Licensee Event Reports (LER) 88-019-00 (Inadvertent Control Building Isolation Due to Personnel Error) and 89-005-00 (Inadvertent Safety Injection Due to Personnel Error by Switch Mispositioning), and 89-013-00 ("A" Train Loss of Power Signal Due to Personnel Error). LER 88-019-00 reported a Control Building Isolation ESF actuation due to personnel error in entering a radiation monitor setpoint. Corrective actions were adequate to prevent future ESF actuations from the radiation monitoring system, but were not applicable to the event reported herein. LER 89-005-00 and LER 89-013-00 reported ESF actuations due to personnel error by failing to be fully cognizant of the total impact of their actions, and failing to follow detailed procedures. While these events are similar in their root cause and affected equipment, there were significant differences in the sequence of actions during each event. The corrective actions were adequate to prevent recurrence of the same events, but due to unique circumstances in each case, these previous corrective actions could not have prevented this event.

EIIS Codes

Systems

JE - Engineered Safety Features Actuation System

Components

None