

# 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  
HARTFORD, CONNECTICUT 06141-0270  
(203)665-5000

January 8, 1993  
MP-93-34

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

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

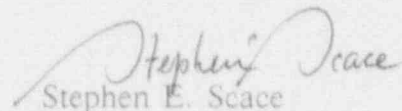
Referen e: Facility Operating License No. NPF-49  
Docket No. 50-423  
Licensee Event Report 92-030-00

Gentlemen:

This letter forwards Licensee Event Report 92-030-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(i), as a condition prohibited by Technical Specifications.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
Stephen E. Scace

Vice President - Millstone Station

SES/RLB:mo

Attachment: LER 92-030-00

cc: T. T. Martin, Region I Administrator  
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3  
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3

100000

9301130188 930108  
PDR ADOCK 05000423  
S PDR

*Cent No 2676A9943*  
*IF 22*  
*11*

## 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   4										
TITLE (4) Outside Air Temperature Less Than Current Design Basis of Plant																										
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	0	9	9	2	9	2	-	0	3	0	-	0	0	0	1	0	8	9	3						
															0   5   0   0   0											
															0   5   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)																						
				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)(vi)				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)(vii)(A)														
				20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(vii)(B)														
				20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)														
				20.405(a)(1)(vi)				50.73(a)(2)(iv)				50.73(a)(2)(x)														
LICENSEE CONTACT FOR THIS LER (12)																										
NAME												TELEPHONE NUMBER														
Robert L. Broullier, Engineer, Ext. 6077												AREA CODE														
												2   0   3   4   4   7   -   1   7   9														
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC																
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH		DAY		YEAR								
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO														

NRC Form 308A (6-89)		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.													
<b>LICENSEE EVENT REPORT (LER) TEXT CONTINUATION</b>																	
FACILITY NAME (1)  Millstone Nuclear Power Station Unit 3		DOCKET NUMBER (2)  <div style="border: 1px solid black; padding: 2px; text-align: center;">             0   5   0   0   0   4   2   3   9   2           </div>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">LER NUMBER (6)</th> <th style="text-align: center;">PAGE (3)</th> </tr> <tr> <th style="text-align: center;">YEAR</th> <th style="text-align: center;">SEQUENTIAL NUMBER</th> <th style="text-align: center;">REVISION NUMBER</th> <th></th> </tr> <tr> <td style="text-align: center;">92</td> <td style="text-align: center;">030</td> <td style="text-align: center;">00</td> <td style="text-align: center;">02 OF 04</td> </tr> </table>		LER NUMBER (6)			PAGE (3)	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		92	030	00	02 OF 04
LER NUMBER (6)			PAGE (3)														
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER															
92	030	00	02 OF 04														

TEXT (If more space is required, use additional NRC Form 308A-s) (17)

I. Description of Event

On December 9, 1992 at 0550 with the plant in Mode 1 at 100% power (2250 psig and 587 degrees Fahrenheit), the outside air temperature fell below 17 degrees Fahrenheit which was the design basis outside air temperature of the charging system. The plant immediately entered LCO 3.0.3, a second charging pump was started in accordance with procedures established to mitigate the consequences of potentially low charging pump cubicle temperatures, and a General Interest Event - Echo was issued. When the outside temperature remained below 17 degrees Fahrenheit for one hour, an Unusual Event Delta One was declared at 0650 and preparations were made to enter Mode 3 within 6 hours. The event was terminated and the plant resumed normal operations at 0807 on December 9 when the outside air temperature exceeded 17 degrees Fahrenheit. A Temporary Waiver of Compliance was issued at 0815 which provided authorization for the plant to operate under the terms of an Amendment to the License pending its approval.

The 17 degree Fahrenheit outside design basis temperature was a result of modifications to the Auxiliary Building Ventilation System which pinned various temperature regulating dampers to insure the operability of the Supplemental Leak Control and Release System (SLCRS). These modifications were made after a recent series of Licensee Event Reports (LER's 92-016, 92-020 and 92-022) and a response to NRC Inspection 92-23. These reports tracked design problems with the Auxiliary Building Filter System. These problems were the subject of a Notice of Violation dated December 28, 1992. The corrective action reported in LER 92-022 describes the interim changes to the Auxiliary Building Filter System and the charging pump/reactor plant component cooling water pump ventilation system. These changes resulted in the 17 degree Fahrenheit design basis limit for outside air temperature.

It was determined by calculation that without supplemental heating in the charging pump/reactor plant component cooling water pump areas, minimum temperatures could not be maintained in these areas to insure the operability of the charging pumps when the outside air temperatures dropped below 17 degrees Fahrenheit. Supplemental heating was installed, but an amendment to the license was required to take credit for this non-Class 1E heating system because it represented an unreviewed safety question. A Technical Specification change was requested on November 12, 1992. Approval of the change was requested by December 1, 1992 due to the likelihood that the outside air temperature would fall below 17 degrees Fahrenheit on or after that date. This change allows for credit of the supplemental heating which will maintain a minimum 32 degrees Fahrenheit in the area of the charging pump/reactor plant component cooling water pumps when outside air temperature is above minus 10.7 degrees Fahrenheit. This minimum temperature insures the operability of the charging pumps.

No automatic or manually initiated safety response was required or initiated.

II. Cause of Event

The root cause of the event was a combination of the outside air temperature design basis of the charging system being temporarily limited to 17 degrees Fahrenheit and the fact that the outside temperature fell below that limit. Licensee Event Reports (LERs) 92-016, 92-020 and 92-022 and the response to NRC Inspection 92-23 reported on design problems with the Auxiliary Building Filter System. Significant modifications were made as reported in LER 92-022 which resulted in the new design basis limit for outside air temperature. These modifications, without credit for supplemental heating installed in the charging pump/reactor plant component cooling water pump areas, could only support operations of the charging pumps with outside air temperatures above 17 degrees Fahrenheit. A Technical Specification change to allow credit for this supplemental heating, which would permit operations with outside air temperatures to minus 10.7 degrees Fahrenheit, was requested on November 12, 1992. However, the outside air temperature fell below the temporary design basis prior to the change's issuance.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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 20585, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

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

TEXT (if more space is required, use additional NRC Form 366A, e) (17)

III. Analysis of Event

This event was the subject of a four hour report in accordance with 10CFR50.72(b)(2)(vi) as an event of public interest at 0550. It was also the subject of an immediate report in accordance with 10CFR50.72(a)(1)(i) as a declaration of any of the Emergency Classes specified in the Emergency Plan and 10CFR50.72(b)(1)(i) as the initiation of a plant shutdown required by Technical Specifications at 0650. This report is being submitted in accordance with 10CFR50.73(a)(2)(i) as a condition prohibited by Technical Specifications (TS). TS 3.1.2.4 (charging system) and 3.5.2 (ECCS subsystems) require that two charging pumps are operable. When the outside air temperature fell below 17 degrees Fahrenheit, both pumps were administratively declared inoperable and LCO 3.0.3 was entered. This condition existed for approximately 2.5 hours until the temperature went above 17 degrees Fahrenheit.

There was no significant safety concern because the supplemental heating (powered from safety-related buses) was in place to allow for operability of the charging pumps with outside temperatures to minus 10.7 degrees Fahrenheit. Two charging pumps were operating and the temperature within the Auxiliary Building in the charging pump area was within the pump's operable range.

IV. Corrective Action

The corrective action was initiated prior to the December 9 event. A Technical Specification change, which would permit operations with outside air temperatures of minus 10.7 degrees Fahrenheit, was requested on November 12, 1992. A Temporary Waiver of Compliance to permit operations under the terms of the change was requested and granted when the outside air temperature actually fell below 17 degrees Fahrenheit.

To prevent recurrence of the December 9 event:

- For Cycle 4 operations, an amendment to the license was issued to allow for credit of supplemental heating in the charging pump/reactor plant component cooling water areas. Amendment 72 allows for operability of the charging pumps with an outside air temperature to a minimum minus 10.7 degrees Fahrenheit.
- For Cycle 5 operations, the Auxiliary Building Ventilation System will be redesigned to provide a permanent fix for the system and allow for charging pump operations in line with the original design basis.

V. Additional Information

Licensee Event Reports (LER) submitted which discuss events where design deficiencies with the Auxiliary Building Ventilation System and inadequate understanding of this system's design basis and interaction with the SLCRS led to design and procedure changes are as follows:

LER NUMBER	TITLE
92-022	Both Trains of Supplemental Leak Collection and Release System Inoperable
92-020	Both Trains of Auxiliary Building Filter System Inoperable
92-016	Both Trains of Auxiliary Building Filter System Inoperable

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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 (2-630), 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

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Millstone Nuclear Power Station  
Unit 3

YEAR

SEQUENTIAL  
NUMBERREVISION  
NUMBER

0 5 0 0 0 4 2 3 9 2 0 3 0 0 0 0 4 OF 0 4

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

LER 92-022 discusses an event where the "B" train of the SLCRS was determined by unit management to be inoperable and that insufficient surveillance testing existed to prove the operability of the "A" train. There were three root causes. First, incomplete system design coupled with several specific equipment problems. Second, inadequate surveillance test procedures were used. Third, the design basis and operating parameters of the Auxiliary Building Filter System and its interaction with the SLCRS was not fully understood. Corrective actions taken included reviewing and making changes to the Auxiliary Building Ventilation System, changing and upgrading procedures, and instituting a system engineering concept to identify emerging problems.

LER-92-020 discusses an event where both trains of the Auxiliary Building Filter System were inoperable from July 11 to August 24. The VIV's had been manually set to 100% open which caused both filter fans to trip. The root cause was failure to perform adequate technical and safety evaluation of a change. The corrective action was to review the event with individuals responsible for performing technical and safety evaluations and incorporate the event in training.

LER 92-016 discusses an event where both trains of the Auxiliary Building Filter System were inoperable due to an open door on the system's common intake plenum. The root cause was design deficiencies which allowed the door to vibrate open. The corrective action was to have the access door lock wired shut.

Each of the listed LER's is included because they identify events which are related to the Auxiliary Building Ventilation System modifications which affected the outside design basis temperature of the plant. The corrective action on these LER's represent the necessary actions taken on those dates to correct various Auxiliary Building Ventilation System problems and could not have prevented the current event.