



**Northeast  
Nuclear Energy**

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The Northeast Utilities System

**AUG 9 2000**

Docket No. 50-336  
B18196

Re: 10 CFR 50.73(a)(2)(i)

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

Millstone Nuclear Power Station, Unit No. 2  
Licensee Event Report 2000-011-00  
Technical Specification Action  
Statements Exceeded for Electrical Busses  
When Vital Switchgear Ventilation Equipment Taken Out of Service

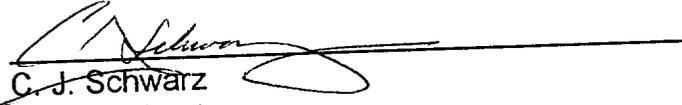
This letter forwards Licensee Event Report 2000-011-00, documenting an event that was determined reportable at Millstone Unit No. 2, on July 12, 2000, pursuant to 10 CFR 50.73(a)(2)(i).

There are no regulatory commitments contained within this letter.

Should you have any questions regarding this submittal, please contact Mr. David Dodson (860) 447-1791, extension 2346.

Very truly yours,

**NORTHEAST NUCLEAR ENERGY COMPANY**

  
C. J. Schwarz  
Station Director

cc: See next page

*IE22*

U.S. Nuclear Regulatory Commission  
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Attachment: LER 2000-011-00

cc: H. J. Miller, Region I Administrator  
J. I. Zimmerman, NRC Project Manager, Millstone Unit No. 2  
S. R. Jones, Senior Resident Inspector, Millstone Unit No. 2

Docket No. 50-336  
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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

LER 2000-011-00

# 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 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

<b>FACILITY NAME (1)</b> Millstone Nuclear Power Station Unit 2	<b>DOCKET NUMBER (2)</b> 05000336	<b>PAGE (3)</b> 1 OF 3
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**TITLE (4)**  
Technical Specification Action Statements Exceeded for Electrical Busses When Vital Switchgear Ventilation Equipment Taken Out of Service

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 NAME	DOCKET NUMBER
07	12	2000	2000	-- 011	-- 00	08	09	2000	FACILITY NAME	DOCKET NUMBER

**OPERATING MODE (9)** 1

**POWER LEVEL (10)** 100

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

20.2201(b)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)	50.73(a)(2)(viii)
20.2203(a)(1)	20.2203(a)(3)(i)	<input type="checkbox"/>	50.73(a)(2)(ii)	50.73(a)(2)(x)
20.2203(a)(2)(i)	20.2203(a)(3)(ii)	<input type="checkbox"/>	50.73(a)(2)(iii)	73.71
20.2203(a)(2)(ii)	20.2203(a)(4)	<input type="checkbox"/>	50.73(a)(2)(iv)	OTHER
20.2203(a)(2)(iii)	50.36(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	Specify in Abstract below ¶f in NRC Form 366A
20.2203(a)(2)(iv)	50.36(c)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> D. W. Dodson, Supervisor - Licensing	<b>TELEPHONE NUMBER (Include Area Code)</b> (860) 447-1791, x2346
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**COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)**

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

**SUPPLEMENTAL REPORT EXPECTED (14)**

<b>YES</b> (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> <b>NO</b>	<b>EXPECTED SUBMISSION DATE (15)</b>	MONTH	DAY	YEAR

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

On July 12, 2000 and again on July 17, it was determined that, with the Unit in Mode 1 at 100% power, Technical Specification (TS) action statements for electrical busses were exceeded when vital switchgear ventilation equipment was removed from service without implementing compensatory cooling measures. TS 3.8.2.1 requires both trains of emergency AC load centers be operable in Modes 1 through 4 and provides for an eight hour allowed outage time to restore the bus or be in cold shutdown in 36 hours. Motor control center enclosure (MCC B61) supports AC load center 22F. When the cooler for MCC B61 was tagged out of service, existing guidance directed either initiation of compensatory cooling measures, or entry into TS 3.8.2.1. Neither action occurred. Later, on July 17, 2000, it was discovered that TS action statement 3.8.2.3 for 125-volt DC bus trains was likewise exceeded when the ventilation chiller that supports Train "B" switchgear cooling was tagged out of service for routine maintenance. TS 3.8.2.3 requires both trains of DC busses be operable in Modes 1 though 4 and provides for a two hour allowed outage time to restore the bus or be in cold shutdown in 36 hours.

Upon discovery of these conditions, appropriate action was taken to restore the equipment to operable status. In both instances, the redundant train was protected and operable during the maintenance outages, the switchgear rooms did not exceed their design basis temperatures, and no loss of safety function occurred.

The cause of these two events was determined to be a lack of organizational awareness of vital switchgear room operability requirements.

**LICENSEE EVENT REPORT (LER)**  
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. Description of Event

On July 12, 2000, during a review of a recent change to the Unit 2 Technical Requirements Manual (TRM), it was determined that a vital switchgear ventilation cooler [CLR] was out of service; and contrary to the direction in the revised TRM, neither compensatory cooling measures had been implemented, nor had the TS action statement been entered for the load center for which the cooler supported. Further reviews determined that a similar incident occurred when a vital chiller [CHU] was removed from service that provided cooling to one of the DC switchgear rooms. The details surrounding each of these events is as follows:

On July 3, 2000, with the Unit in Mode 1 at 100% power, the Train "B" 125-volt DC switchgear room vital chiller (X169B) was tagged out of service for maintenance activities. The maintenance lasted for 8 hours and 23 minutes after which time the vital chiller was tested and confirmed to be operating properly. This chiller provides cooling required to maintain the DC switchgear operable in accordance with TS 3.8.2.3 which requires, in Modes 1 through 4, that both DC bus trains [EJ] be energized and operable. The TS allows two hours to restore the inoperable bus or to be in cold shutdown within the next 36 hours. A recent (June 22, 2000) change to the TRM provided guidance for implementation of compensatory cooling measures in accordance with an operations procedure, or, entry into TS 3.8.2.3. During work order preparation and review, and X169B tagging, individuals were unaware of the full implications behind the TRM change; therefore, no compensatory measures were initiated and no entry into TS 3.8.2.3 occurred. The two hour TS allowed outage time for restoration of the bus was exceeded. During the maintenance outage for X169B, the redundant Train "A" 125-volt DC bus was operable.

In a similar event, from July 9 to July 13, 2000, (for approximately 87 hours) with the Unit in Mode 1 at 100% power, emergency motor control center (MCC B61) enclosure cooler (AC-4) was tagged out of service for wiring modifications. This cooler is required to maintain the MCC B61 equipment operable which, in turn, supports operability of 480-volt emergency load center No. 22F. TS 3.8.2.1 requires that AC electrical busses [ED] be operable and energized from sources of power other than the diesel generators. The 480-volt emergency load centers 22E and 22F are included in the listing of busses required to be operable. TS 3.8.2.1 allows eight hours to restore the inoperable bus or to be in cold shutdown within the next 36 hours. During work order preparation and review, and AC-4 tagging, individuals were unaware of the full implications behind the recent TRM change, which directed implementation of compensatory measures, or, entry into TS 3.8.2.1; therefore, no compensatory measures were initiated, and no entry into TS 3.8.2.1 occurred. The eight hour TS allowed outage time for restoration of the load center was exceeded. During the maintenance outage for AC-4, the redundant emergency load center No. 22E was operable.

The discovery of these conditions occurred on July 13 (AC-4) and July 17, 2000 (X169B), and in both instances, appropriate action was taken to restore the equipment to operable status. This condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specifications.

II. Cause of Event

The cause of these two events was determined to be a lack of organizational awareness of vital switchgear room operability requirements. The investigation determined that the tools in place (i.e. procedures, databases, TRM guidance) for operations and planning personnel were inadequate in clearly establishing/communicating the switchgear room operability requirements. A contributing cause was determined to be an inadequate TRM change implementation process.

In the event that a vital switchgear ventilation train is inoperable, Unit 2 TRM, Section 11.0, "Switchgear Ventilation," requires implementation of compensatory actions in accordance with procedure OP 2315D, "Vital

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

Electrical Switchgear Room Cooling Systems," to provide necessary cooling, or, entry into the associated TS action statement for the supported bus. Both the TRM and OP 2315D changes were effective on June 22, 2000. For nine months prior to the TRM change, an operability determination was in effect and intended to provide direction regarding implementation of the compensatory measures until the TRM change became effective. During the subsequent investigation performed to establish the extent of condition, it was discovered that on at least 6 other occasions, a vital chiller had been removed from service, and no indication exists to show that compensatory measures were implemented during those maintenance outages. Additionally, nothing in the work planning process flagged the importance of removing this equipment from service, and weaknesses in the operations procedure OP 2315D and the TRM were also detected. Without compensatory cooling in place, the respective busses were considered inoperable; and during the maintenance outages for X169B and AC-4, the potential existed for the switchgear to overheat.

III. Analysis of Event

During both maintenance outages, the switchgear rooms did not exceed their design basis temperatures. In both events, the redundant train or facility was operable and capable of performing the same accident mitigating functions as the out of service train. However, if a postulated failure affecting the protected train were to have occurred, the long term reliability of the accident mitigating functions supported by the bus would have potentially been limited.

This condition is not considered to be safety significant and a loss of safety function for the electrical busses did not occur.

IV. Corrective Action

For the two conditions detailed in this report, immediate corrective actions consisted of appropriate actions to restore the equipment (AC-4, X169B) to operable status. A root cause investigation was performed, and appropriate corrective actions are being addressed via the Millstone Corrective Action Program. Corrective actions include the following:

1. Fix identified discrepancies in OP2315D, "Vital Electrical Switchgear Room Cooling Systems," and Technical Requirements Manual, Section 11, "Switchgear Ventilation," regarding the vital switchgear room operability requirements and compensatory actions.
2. Ensure the database that supports the automated work order system includes fields that link or flag vital switchgear room ventilation support equipment to the Technical Specifications and/or the Technical Requirements Manual.
3. Align the TRM change implementation process with the TS change implementation process.

V. Additional Information

None

Similar Events

Previous similar conditions involving vital switchgear ventilation were identified as follows:

Condition Report M2-00-2105, dated July 24, 2000, documents a condition that occurred in April 2000, when both DC switchgear vital chillers (X169A/B) were airbound as the result of earlier maintenance activities. The air binding existed when the Unit was in Mode 1 and potentially caused both DC switchgear rooms to be inoperable. This condition is currently under investigation and a Licensee Event Report is being prepared.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX]