Dominion Nuclear Connecticut, Inc. Millstone Power Station Rope Ferry Road Waterford, CT 06385



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U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555 Serial No.07-0017MPS-Lic/TGCR0Docket No.50-336License No.DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE POWER STATION UNIT 2

LICENSEE EVENT REPORT 2006-007-00, VENDOR TECHNICAL MANUAL USED IN COMMON MAINTENANCE PROCEDURE ON SUPPORT SYSTEM RESULTS IN INOPERABILITY OF REDUNDANT 480V EMERGENCY LOAD CENTERS

This letter forwards Licensee Event Report (LER) 2006-007-00, documenting a condition that occurred at Millstone Power Station Unit 2, on November 21, 2006. This LER is being submitted pursuant to 10CFR50.73(a)(2)(i)(B) and 10CFR50.73(a)(2)(vii).

If you have any questions or require additional information, please contact Mr. David W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

A. J. J. drdan, Director Nuclear Station Operations and Maintenance



Attachments: 1

Commitments made in this letter: None.

cc: U.S. Nuclear Regulatory Commission Region I 475 Allendale Road King of Prussia, PA 19406-1415

> Mr. V. Nerses Senior Project Manager U.S. Nuclear Regulatory Commission One White Flint North 11555 Rockville Pike Mail Stop 8C2 Rockville, MD 20852-2738

Mr. S. M. Schneider NRC Senior Resident Inspector Millstone Power Station Attachment 1

Licensee Event Report 2006-007-00

Vendor Technical Manual Used in Common Maintenance Procedure on Support System Results in Inoperability of Redundant 480V Emergency Load Centers

2

Millstone Power Station Unit 2 Dominion Nuclear Connecticut, Inc. (DNC)

NRC FORM 366 (6-2004)	U.S. NUCLEAR REGULATORY COMMISSION				APPROVED BY OMB NO. 3150-0104				EXPIRES 06/30/2007							
LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)					Reported lessons learned are incorporated into the licer comments regarding burden estimate to the Records and Nuclear Regulatory Commission, Washington, DC infocollects@nrc.gov, and to the Desk Officer, Office o 10202 (3150-0104), Office of Management and Budget, impose information collection does not display a currently conduct or sponsor, and a person is not required to respo				to the licens acords and l gton, DC r, Office of d Budget, V a currently ad to respon	hardy anonimation conjection request: so hours, nsing process and fed back to industry. Send 1 FOIA/Privacy Service Branch (T-5 F52), U.S. 20555-0001, or by internet e-mail to of Information and Regulatory Affairs, NEOB- Washington, DC 20503. If a means used to y valid OMB control number, the NRC may not ond to, the information collection.						
1. FACILITY NAME Millstone Power Station - Unit 2						2. DOCKET NUMBER 05000336					3. PAGE 1 OF 3					
4. TITLE Vendo	or Techn	ical Ma	nual Use	ed in Comm	non M	ainten	ance P	rocedure	on	Support Syste	em Resu	ults in	Inop	erability		
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At 14:24 on November 21, 2006 with the plant operating at 100% power in Mode 1, redundant 480V emergency load centers were declared inoperable when it was discovered that required ventilation systems were not able to perform their related support functions. Subsequent review determined that the condition had existed since November 15, 2006 when the plant entered Mode 4 starting up from a refueling outage. Upon discovery, at 14:24 on November 21, 2006, the plant entered Technical Specification 3.0.3. Operability of the 480V emergency load centers was restored at 16:05 on November 21, 2006.																
A vendor technical manual used in a common maintenance procedure for adding refrigerant to the associated air conditioning units did not ensure sufficient refrigerant charge to support adequate cooling of the associated emergency load centers. This condition is being reported pursuant to 50.73(a)(2)(i)(B), as an operation or condition prohibited by Technical Specifications and 50.73(a)(2)(vii) as a common cause inoperability of independent trains.																
Upon discovery, additional refrigerant was added to the air conditioning units restoring their functionality. The corrective action to prevent recurrence is to correct the vendor technical manual. Additional corrective actions are being taken in accordance with the station's corrective action program.																
The safety consequences associated with this event are under evaluation. The outcome of the evaluation, including the impact of the condition on required safety functions, will be reported in a supplement to this LER.																

NRC FORM 366A (1-2001) LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET		6. LER NUMBE	3. PAGE	
Millstone Power Station - Unit 2	05000336	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2006	007	00	

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

Event Description

At 14:24 on November 21, 2006 with the plant operating at 100% power in Mode 1, redundant 480V emergency load centers were declared inoperable when it was discovered that required ventilation systems [VJ] were not able to perform their related support functions. Subsequent review determined that the condition had existed since November 15, 2006 when the plant entered Mode 4 starting up from a refueling outage. Upon discovery, at 14:24 on November 21, 2006, the plant entered Technical Specification 3.0.3. Operability of the 480V emergency load centers was restored at 16:05 on November 21, 2006.

Plant Technical Specification (TS) 3.8.2 governs the limiting condition for operation for AC distribution systems in Modes 1, 2, 3 and 4. The AC distribution system [ED] consists of a two train system (Facility 1 and 2) that includes 480 volt emergency load centers 22E and 22F (Facility 1 and 2, respectively). The AC electrical systems are supported by switchgear room ventilation systems. The 480 volt emergency AC distribution system includes motor control centers (MCC) B51 (Facility 1) and B61 (Facility 2). MCCB51 and MCCB61 each have self-contained air conditioning units to remove heat from the metal enclosures (AC-3, AC-4, respectively).

Maintenance had been performed on AC-3 and AC-4 during the refueling outage. The maintenance included removing and replacing the refrigerant charge. Work orders were prepared utilizing information from the vendor technical manual. The vendor technical manual indicated that the units require a four pound charge. After removing and weighing the refrigerant charge from AC-3 (approximately 11 pounds), maintenance personnel added four pounds, but the unit did not function with that charge. Maintenance increased the charge to eight pounds until the unit began cooling. A similar approach was taken for AC-4, adding eight pounds of refrigerant. Subsequent review has concluded that eight pounds was sufficient for the reduced heat loads during the refueling outage, but was not sufficient for the heat loads at power.

Since this condition existed at the time that Mode 4 was entered on November 15 and not corrected until November 21, this condition is being reported pursuant to 50.73(a)(2)(i)(B), as an operation or condition prohibited by Technical Specifications.

The maintenance work orders did not ensure that the self-contained air conditioning units would perform their support function. Since these work instructions were based on the same vendor technical manual and affected the operability of both facilities, this condition is being reported pursuant to 50.73(a)(2)(vii) as a common cause inoperability of independent trains.

The ability of equipment supported by these 480V Emergency Load Centers to perform the intended safety function is under evaluation.

2. Cause

The vendor technical manual for AC-3 and AC-4 specifies a refrigerant charge that is less than required for this application.

3 Assessment of Safety Consequences

The safety consequences associated with this event are under evaluation. While it is known that margins exist in the associated design basis heat load analyses, the extent to which those margins are sufficient to offset the loss of cooling remains under evaluation. The outcome of the evaluation, including the impact of the condition on required safety functions, will be reported in a supplement to this LER.

NRC FORM 366A (1-2001) LICENSEE EVENT REPORT (LER)

	2 DOCKET			6 1 FR NUMBER				
Millstone Power Station - Unit 2	05000336	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3			
		2006	007	00				

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

Corrective Action 4.

Upon discovery, additional refrigerant was added to the air conditioning units restoring their functionality. The corrective action to prevent recurrence is to correct the vendor technical manual. Additional corrective actions are being taken in accordance with the station's corrective action program.

Previous Occurrences 5.

Millstone Condition Report CR-04-10911 (December 9, 2004) describes a similar condition in which AC-3 required additional refrigerant charge. Refrigerant was added and the condition report was closed to trending.

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