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

Dominion

MAR 7 2006

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

Serial No. 06-171
MPS Lic/GJC R0
Docket No. 50-336
License No. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
LICENSEE EVENT REPORT 2006-001-00
LOSS OF CHARGING FUNCTION

This letter forwards Licensee Event Report (LER) 2006-001-00, documenting an event that occurred at Millstone Power Station Unit 2 on January 9, 2006. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(v)(A) as an event or condition that could have prevented fulfillment of a safety function of structures or systems needed to shutdown and maintain the reactor in a safe shutdown condition.

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

Very truly yours,

Stephen E. Scace
Director Nuclear Station Safety & Licensing – Millstone

IE22

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

Millstone Power Station Unit 2
LER 2006-001-00

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

NRC FORM 366 (6-2004) NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 06/30/2007

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0066), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4)
Loss of Charging Function

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
01	09	2006	2006-001-00						FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	X 50.73(a)(2)(v)(A)	73.71(a)(5)
20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
David W. Dodson, Supervisor Nuclear Station Licensing	(860) 447-1791

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
☒ YES (If yes, complete EXPECTED SUBMISSION DATE).	☐ NO		05	31	06

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

On January 9, 2006, Millstone Unit 2 was operating in Mode 1 at 100% power. At approximately 0435, with one charging pump running, operators received a charging pump discharge pulsation dampener failure alarm. At 0455 charging header flow indication began to drop. The operators evaluated this as a loss of both facilities of the charging system. All charging pumps were declared inoperable at 0455.

Additional investigation indicated potential gas binding of the charging pumps. At 0554 the operators vented and started one charging pump and declared it operable, restoring one train of the charging system.

The design basis Loss of Coolant Accident (LOCA) and Steam Line Break (SLB) accident analyses demonstrate acceptable results without credit for charging. Therefore, the loss of charging has no impact on ECCS Injection. The charging pumps have two credited safety functions associated with normal operation and shutdown of the reactor plant. These functions are Inventory Control, and Boration for Reactivity Control. For this reason the failure of the charging system is considered reportable under the provisions of 10 CFR 50.73(a)(2)(v)(A), as an event or condition that could have prevented fulfillment of a safety function of structures or systems needed to shutdown and maintain the reactor in a safe shutdown condition.

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

1. Event Description

On January 9, 2006, Millstone Unit 2 was operating in Mode 1 at 100% power. At approximately 0435, with one charging pump [P] running, operators received a charging pump discharge pulsation dampener failure alarm. At 0455, charging header flow indication began to drop. The operators evaluated this as a loss of both facilities of the charging system. All charging pumps were declared inoperable at 0455.

Additional investigation indicated potential gas binding of the charging pumps. At 0554 the operators vented and started one charging pump and declared it operable, restoring one train of the charging system.

The charging portion of the Millstone Unit 2 Chemical Volume Control System (CVCS) [CB] is comprised of three positive displacement pumps. These pumps are used in conjunction with the letdown portion of the CVCS to automatically maintain pressurizer level in the appropriate band. One pump is usually in service with the other two pumps automatically starting, as necessary, in response to the pressurizer level control system. The charging pumps have two credited safety functions, Inventory Control, and Boration for Reactivity Control. The design basis Loss of Coolant Accident (LOCA) and Steam Line Break (SLB) accident analyses demonstrate acceptable results without credit for charging. Therefore, the loss of charging has no impact on ECCS Injection.

The failure of the charging system is reportable under the provisions of 10 CFR 50.73(a)(2)(v)(A), as an event or condition that could have prevented fulfillment of a safety function of structures or systems needed to shutdown and maintain the reactor in a safe shutdown condition.

2. Cause

The Root Cause Evaluation of the January 9, 2006 failure of the charging system to perform its design function is not complete. A supplement to this Licensee Event Report, which contains the root cause(s), will be submitted by May 31, 2006.

3. Assessment of Safety Consequences

The charging system has two credited safety functions:
1. Inventory Control
2. Boration for Reactivity Control

The impacts of a loss of charging on these safety functions are as follows.
1. Inventory Control: As an alternative to charging, inventory control can be achieved by Reactor Coolant System (RCS) depressurization and High Pressure Safety Injection (HPSI).
2. Boration for Reactivity Control: Like Inventory Control, Boration can be achieved using (HPSI) following RCS depressurization.

LICENSEE EVENT REPORT (LER)

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

4. Corrective Action

A supplement to this Licensee Event Report will be submitted by May 31, 2006.

5. Previous Occurrences

A previous event occurred on Unit 2 on March 7, 2003 which resulted in the loss of the charging function. This was reported in LER 2003-003-00 and supplemented in LER 2003-003-01

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