Dominion Nuclear Connecticut, Inc.
Rope Ferry Rd., Waterford, CT 06385
Mailing Address: P.O. Box 128
Waterford, CT 06385
dom.com

Dominion®

JUN 2 7 2016

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

Serial No.	16-243
MPS Lic/GJC	R0
Docket No.	50-336
License No.	DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
LICENSEE EVENT REPORT 2016-001-00
TURBINE DRIVEN AUXILIARY FEEDWATER
PUMP ROOM HELB DOOR LEFT OPEN

This letter forwards Licensee Event Report (LER) 2016-001-00 documenting a condition discovered at Millstone Power Station Unit 2, on April 27, 2016. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(v) as any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to: (B) Remove residual heat; and (D) Mitigate the consequences of an accident.

If you have any questions or require additional information, please contact Mr. Thomas G. Cleary at (860) 444-4377.

Sincerely,

John R. Daugherty
Site Vice President – Millstone

Attachments: 1

Commitments made in this letter: None

IE22
NRR

cc: U.S. Nuclear Regulatory Commission
Region I
2100 Renaissance Blvd.
Suite 100
King of Prussia, PA 19406-2713

R.V. Guzman
NRC Senior Project Manager Millstone Units 2 and 3
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 08 C-2
Rockville, MD 20852-2738

NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT

LICENSEE EVENT REPORT 2016-001-00
TURBINE DRIVEN AUXILIARY FEEDWATER PUMP ROOM HELB DOOR LEFT OPEN

MILLSTONE POWER STATION UNIT 2
DOMINION NUCLEAR CONNECTICUT, INC.

NRC FORM 366 (11-2015) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2018

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), 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 Page 2 for required number of digits/characters for each block)

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4. TITLE

Turbine Driven Auxiliary Feedwater Pump Room HELB Door Left Open

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	27	2016	2016	001	00	06	27	2016		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☑ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(C)	☐ 73.77(a)(1)
100	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☑ 50.73(a)(2)(v)(D)	☐ 73.77(a)(2)(i)
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(ii)
		☐ 50.73(a)(2)(i)(C)	☐ OTHER Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT	TELEPHONE NUMBER *(Include Area Code)*
Thomas G. Cleary, Manager Nuclear Station Licensing	(860) 444-4377

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

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

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☑ NO				

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

On April 27, 2016, with Millstone Power Station Unit 2 (MPS2) in MODE 1 at 100% power, plant personnel inadvertently left the door to the turbine driven auxiliary feed pump room open. This condition existed for less than one hour. The door is a high energy line break (HELB) barrier. With the door open there is no HELB protection for the motor driven auxiliary feedwater (AFW) pumps thus potentially rendering both trains of AFW inoperable.

The cause is human performance error. The door is conspicuously labeled on each side that it is a HELB boundary door and must be closed except for entry and exit from the room. Corrective actions are being taken in accordance with the station's corrective action program.

This condition is being reported pursuant to 10 CFR 50.73(a)(2)(v) as any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to: (B) remove residual heat; and (D) mitigate the consequences of an accident.

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1. EVENT DESCRIPTION

On April 27, 2016, with Millstone Power Station Unit 2 (MPS2) in MODE 1 at 100% power, plant personnel inadvertently left the door to the turbine driven auxiliary feedwater (TDAFW) pump room open. Upon discovery the door was closed. Door access records indicate the door could not have been open for more than 57 minutes. The door is a high energy line break (HELB) barrier. With the door open there is no HELB protection for the motor driven auxiliary feedwater (AFW) pumps thus potentially rendering both trains of AFW inoperable.

This event is being reported pursuant to 10 CFR 50.73(a)(2)(v) as any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to: (B) remove residual heat; and (D) mitigate the consequences of an accident.

Background Information:

The auxiliary feedwater system (AFWS) is designed to provide feedwater for the removal of sensible and decay heat, and to cool the primary system to 300 degrees F in case the main condensate and steam generator (SG) feed pumps are inoperative due to loss of normal electric power sources.

In order to perform its safety-related function, assuming a single failure, the AFWS is comprised of two full capacity subsystems. One subsystem consists of two motor driven AFW pumps that are automatically connected to the diesel generators in the event of a loss of offsite power. The second subsystem consists of one turbine-driven pump that is independent of AC power and may be started by operator action.

The AFW pumps are located in two separate pump rooms at elevation 1 foot 6 inches in the MPS2 Turbine Building. Access to the first room which houses the two motor driven AFW pumps is by stairs leading down from the ground floor at elevation 14 feet 6 inches. The enclosure over the pump room stairwell serves as a protective barrier against direct water streams into the pump room due to a possible overhead pipe failure. The second room which houses the TDAFW pump is a vault physically separated from the motor driven AFW pump room by a reinforced concrete wall. The only access means to this room is through a water-tight fire door. This door is also the HELB barrier between the motor driven AFW pumps and the TDAFW pump room.

2. CAUSE

The cause is human performance error. The door is conspicuously labeled on each side that it is a HELB boundary door and must be closed except for entry and exit from the room.

3. ASSESSMENT OF SAFETY CONSEQUENCES

The consequences of this event were not safety significant. This condition existed for approximately one hour. In the unlikely event that a HELB occurred in the TDAFW pump room during the short time the HELB barrier was breached, it is possible that the main feedwater pumps, the condensate pumps and both trains of AFW would not be available to maintain the core and reactor coolant system (RCS) heat removal safety functions. In this scenario, both SG levels would decrease. The existing loss of all feedwater Emergency Operating Procedure (EOP) guidance would direct the operators to establish once through cooling when SG wide range levels dropped to 70 inches. This once through cooling EOP strategy utilizes the pressurizer power operated relief valves to depressurize the RCS and the charging and high pressure safety injection pumps to maintain the RCS inventory and core heat removal safety functions. Since using

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4. CORRECTIVE ACTION

This was a human performance problem and was addressed in accordance with appropriate policies. Corrective actions are being taken in accordance with the station's corrective action program.

5. PREVIOUS OCCURRENCES

MPS2 LER 2013-002-00, Turbine Driven Auxiliary Feedwater Pump HELB Door Left Open During Surveillance Test.

6. Energy Industry Identification System (EIIS) codes

- Auxiliary feedwater system – BA
- TDAFW pump – TRB, P
- Electric motor driven auxiliary feedwater pump – MO, P
- Door – DR
- Steam Generator – SG