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DEC 19 2013

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


Serial No. 12-436A
MPS Lic/TGC R0
Docket No. 50-336
License No. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
LICENSEE EVENT REPORT 2012-001-01
HISTORICAL GAPS IN HIGH ENERGY LINE BREAK BARRIER

This letter forwards Licensee Event Report (LER) 2012-001-01 documenting a condition discovered at Millstone Power Station Unit 2 on June 7, 2012. This LER supplement is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B), 10 CFR 50.73(a)(2)(v)(A) and 10 CFR 50.73(a)(2)(v)(D).

If you have any questions or require additional information, please contact Mr. William D. Bartron at (860) 444-4301.

Sincerely,


Stephen E. Scace
Site Vice President – Millstone

Attachments: 1

Commitments made in this letter: None

IE22
NRK

cc: U.S. Nuclear Regulatory Commission
Region I
2100 Renaissance Blvd, Suite 100
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J. S. Kim
Project Manager - Millstone Power Station
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NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT

LICENSEE EVENT REPORT 2012-001-01

**MILLSTONE POWER STATION UNIT 2
DOMINION NUCLEAR CONNECTICUT, INC.**

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION (10/2010) <div style="text-align: center;">LICENSEE EVENT REPORT (LER)</div> (See reverse for required number of digits/characters for each block)		APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013 <small>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 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, (3150-0104), 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.</small>																					
1. FACILITY NAME Millstone Power Station - Unit 2		2. DOCKET NUMBER 05000336	3. PAGE 1 OF 3																				
4. TITLE Historical Gaps in High Energy Line Break Barrier																							
5. EVENT DATE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:33%;">MONTH</th> <th style="width:33%;">DAY</th> <th style="width:33%;">YEAR</th> </tr> <tr> <td style="text-align: center;">06</td> <td style="text-align: center;">07</td> <td style="text-align: center;">2012</td> </tr> </table>			MONTH	DAY	YEAR	06	07	2012	6. LER NUMBER <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:33%;">YEAR</th> <th style="width:33%;">SEQUENTIAL NUMBER</th> <th style="width:33%;">REV NO.</th> </tr> <tr> <td style="text-align: center;">2012</td> <td style="text-align: center;">001</td> <td style="text-align: center;">01</td> </tr> </table>	YEAR	SEQUENTIAL NUMBER	REV NO.	2012	001	01								
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:15%;">CAUSE</th> <th style="width:15%;">SYSTEM</th> <th style="width:15%;">COMPONENT</th> <th style="width:15%;">MANU-FACTURER</th> <th style="width:15%;">REPORTABLE TO EPIX</th> <th style="width:15%;">CAUSE</th> <th style="width:15%;">SYSTEM</th> <th style="width:15%;">COMPONENT</th> <th style="width:15%;">MANU-FACTURER</th> <th style="width:15%;">REPORTABLE TO EPIX</th> </tr> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table>				CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX										
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ABSTRACT <i>(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</i> <p>At 19:30 on June 7, 2012, with Millstone Power Station Unit 2 (MPS2) operating at 100 percent power in Mode 1, it was determined that a series of gaps in a high energy line break (HELB) barrier rendered equipment in the west 480VAC switchgear room inoperable. The Shift Manager entered Technical Specification (TS) 3.8.2.1 Action, TS 3.8.2.1A Action "c" and TS 3.3.3.5 Action "a". The openings were sealed and the equipment restored to operable status at 16:05 on June 8, 2012. At the time of discovery, appropriate and timely actions were taken that met the TS action requirements. There is evidence that this condition has existed since initial construction. Since the HELB barrier required to maintain operability of bus 22E, Inverters 5 and 6, and remote shutdown panel C-21 was non-functional for an extended period of time, the Actions for TS 3.8.2.1, TS 3.8.2.1A and TS 3.3.3.5 were historically not met. This condition is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B) "any operation or condition prohibited by the plant's technical specifications".</p> <p>The apparent cause, dating back to original construction, is that no construction details were developed for sealing Q-decking when the ribbing is perpendicular to the top of the wall. As noted above, the gaps were subsequently sealed and an extent of condition inspection was conducted. Additional gaps in the same wall did not affect safety related equipment. No other gaps were identified. This report assumes the steam from a HELB in the turbine building would have affected the operability of safety related equipment in the west 480VAC switchgear room. Upon further engineering analysis, it was determined that for limited exposure times safety functions could have been prevented for certain postulated high energy line breaks. Therefore, this condition is also being reported pursuant to 10 CFR 50.73(a)(2)(v)(A),(D).</p>																							

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Millstone Power Station - Unit 2	05000336	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 3
		2012	-- 001 --	01	

NARRATIVE

1. Event Description

At 19:30 on June 7, 2012, with Millstone Power Station Unit 2 (MPS2) operating at 100 percent power in Mode 1, it was determined that a series of gaps in a high energy line break (HELB) barrier rendered equipment in the west 480VAC switchgear room inoperable. The Shift Manager entered Technical Specification (TS) 3.8.2.1 Action, TS 3.8.2.1A Action "c" and TS 3.3.3.5 Action "a" at 19:30 on June 7, 2012. The openings were sealed and the equipment restored to operable status at 16:05 on June 8, 2012.

The openings in the HELB barrier were identified during maintenance activities to support a plant modification, when maintenance personnel identified a series of gaps in a wall that separates the MPS2 turbine building from the west 480VAC switchgear room. The west 480VAC switchgear room contains 480 volt emergency load center 22E [EC]. TS 3.8.2.1 "A.C. Distribution - Operating" applies in Modes 1, 2, 3, and 4 and requires certain electrical busses to be operable. With less than the complement of A.C. busses operable, TS 3.8.2.1 Action requires restoration of the bus to operable status within 8 hours or be in cold shutdown within the next 36 hours.

The gaps in the HELB barrier also affected the operability of Inverter 5 and Inverter 6 [EE]. TS 3.8.2.1A "A.C. Distribution - Operating" applies in Modes 1, 2 and 3 and requires Inverters 5 and 6 to be operable. Action "c" stipulates with Inverters 5 and 6 inoperable or unavailable for automatic transfer via static switches VS1 and VS2 to power busses VA-10 and VA-20, respectively, restore the inverters to operable status or restore their automatic transfer capability within 7 days.

The remote shutdown instrumentation panel (C-21) [PL] is also located in the west 480VAC switchgear room. TS 3.3.3.5 "Remote Shutdown Instrumentation" applies in Modes 1, 2 and 3 and requires remote shutdown instrumentation channels to be operable. TS 3.3.3.5 Action "a" stipulates with the number of operable remote shutdown monitoring instrumentation channels less than required by TS Table 3.3-9, restore the inoperable channel to operable status within 7 days.

This condition is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B) "any operation or condition prohibited by the plant's technical specifications". At the time of discovery, appropriate and timely actions were taken that met the TS action requirements. There is evidence that this condition has existed since initial construction. Since the HELB barrier required to maintain operability of bus 22E, Inverters 5 and 6, and remote shutdown panel C-21 was non-functional for an extended period, the Actions for TS 3.8.2.1, TS 3.7.2.1A and TS 3.3.3.5 were historically not met.

Upon further engineering analysis, it was determined in addition to the above, that for limited exposure time of 66 days when compensatory cooling was in place for the west 480VAC switchgear, if a failed steam line was not isolated, the operability of DC switchgear could have been impacted. Therefore, this condition did not meet the LCO requirements of TS 3.8.2.3 "D.C. Distribution". It was also determined that for limited exposure time of 2 days when compensatory cooling was in place for the east 480VAC switchgear, if a failed steam line was not isolated, the operability of 480 volt emergency load centers 22E and 22F could have been impacted. Therefore, this condition did not meet the LCO requirements of TS 3.8.2.1 "A.C. Distribution - Operating".

For limited exposure times of 66 days when compensatory cooling was in place for the west 480VAC switchgear and 2 days when compensatory cooling was in place for the east switchgear, completion of safety functions could have been prevented for certain postulated high energy line breaks. Therefore, this condition is also being reported pursuant to 10 CFR 50.73(a)(2)(v)(A),(D).

2. Cause

This is a historical condition dating back to original construction. The gaps were located high in an overhead in the wall to ceiling interface of Q-decking at the north wall of the west 480VAC switchgear room, not visible during normal plant observation. The gaps were discovered because scaffolding had been erected to support an independent plant modification in an area not typically accessible. The apparent cause, dating back to original

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NARRATIVE

construction, is that no construction details were developed for sealing Q-decking when the ribbing is perpendicular to the top of the wall.

3. Assessment of Safety Consequences

As a design feature, the HELB barrier is in place to limit the effects of a steam environment created by a HELB in the turbine building. The gaps in the barrier associated with the west 480VAC switchgear room area were located high in the overhead and partially obstructed by building steel. The specific HELB gaps were 91 unsealed openings in the Q-deck (ceiling structure), with a total gap area of approximately 3 square feet.

There were no adverse consequences to the health and safety of the public or the plant and its personnel resulting from the gaps in the HELB barrier. This report assumes the steam from a high energy line break in the turbine building would have affected the operability of safety related equipment in the west 480VAC switchgear room. When necessary, MPS2 has operated in the past with normal ventilation to either the west or east 480VAC switchgear rooms out of service and compensatory cooling established. *A more detailed engineering analysis was conducted by Dominion and the NRC through the Significance Determination Process (SDP) (ADAMS ACCESSION NO: ML13312A992). The gaps would allow high energy steam to enter the switchgear rooms, causing the electrical equipment inside to potentially fail. This was assessed as very low safety significance as determined by a detailed risk assessment using SAPHIRE 8 and a modified main steam line break outside of containment event tree from the Millstone 2 SPAR model.*

4. Corrective Action

The gaps were sealed. Plant walk-downs were conducted to assess the extent of condition and whether any similar conditions existed. Additional gaps in the same wall did not affect safety related equipment. No other gaps were identified.

Additional corrective actions are being taken in accordance with the station's corrective action program.

5. Previous Occurrences

There are no previous occurrences identified.

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