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**MAR 31 2014**

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


Serial No. 14-143  
MPS Lic/GJC R0  
Docket No. 50-336  
License No. DPR-65

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 2**  
**LICENSEE EVENT REPORT 2014-001-00**  
**COMPLETION OF PLANT SHUTDOWN**  
**REQUIRED BY TECHNICAL SPECIFICATIONS**

This letter forwards Licensee Event Report (LER) 2014-001-00 documenting an event at Millstone Power Station Unit 2 on January 31, 2014. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(A).

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

*TE22*  
*MRR*

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

M. C. Thadani  
NRC Project Manager Millstone Units 2 and 3  
U. S. Nuclear Regulatory Commission  
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Mail Stop O8 B-1  
11555 Rockville Pike  
Rockville, MD 20852-2738

NRC Senior Resident Inspector  
Millstone Power Station

**ATTACHMENT**

**LICENSEE EVENT REPORT 2014-001-00**  
**COMPLETION OF PLANT SHUTDOWN**  
**REQUIRED BY TECHNICAL SPECIFICATIONS**

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

**LICENSEE EVENT REPORT (LER)**(See Page 2 for required number of  
digits/characters for each block)

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 [Infocollections.Resource@nrc.gov](mailto:Infocollections.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.

<b>1. FACILITY NAME</b> Millstone Power Station Unit 2	<b>2. DOCKET NUMBER</b> 05000336	<b>3. PAGE</b> 1 OF 3
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<b>4. TITLE</b> Completion of Plant Shutdown Required By Technical Specifications
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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
01	31	2014	2014	- 001	- 00	03	31	2014	FACILITY NAME	DOCKET NUMBER 05000

<b>9. OPERATING MODE</b>	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b>			
3	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
<b>10. POWER LEVEL</b>  000	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

<b>12. LICENSEE CONTACT FOR THIS LER</b>	
LICENSEE CONTACT William D. Bartron, Supervisor Nuclear Station Licensing	TELEPHONE NUMBER (Include Area Code) 860-444-4301

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

<b>14. SUPPLEMENTAL REPORT EXPECTED</b> <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	<b>15. EXPECTED SUBMISSION DATE</b>	MONTH	DAY	YEAR

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

On January 30, 2014 at 2313, with Millstone Power Station Unit 2 (MPS2) in MODE 1 and at 100% reactor power, the circuit breaker for the group 1 pressurizer proportional heaters tripped. With the 'B' emergency diesel generator out of service for its maintenance outage and therefore inoperable, Technical Specification Action Statement (TSAS) 3.4.4 action b was entered. TSAS 3.4.4 action b requires MPS2 be in at least HOT STANDBY (MODE 3) with the reactor trip breakers open within 6 hours and in HOT SHUTDOWN (MODE 4) within the following 6 hours, unless one group of proportional heaters is restored to operable status. MPS2 completed the shutdown to MODE 3 at 0457 and restored the group 1 proportional heaters to operable status at 0747 on January 31, 2014. The initiation of the shutdown was reported to the NRC (event number 49779) pursuant to 10 CFR 50.72(b)(2)(i) - The initiation of any nuclear plant shutdown required by the plant's technical specifications.

After troubleshooting, faulty heater leads were lifted to remove a failed heater from service. Following appropriate testing, the group 1 proportional heater and the pressurizer were declared operable and MPS2 was subsequently returned to service.

This condition is being reported pursuant to 10 CFR 50.73(a)(2)(i)(A) - The completion of any nuclear plant shutdown required by the plant's technical specifications.

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

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 [Infocollect.Resource@nrc.gov](mailto:Infocollect.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.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Millstone Power Station Unit 2	05000336	2014	- 001	- 00	2 OF 3

**NARRATIVE****1. EVENT DESCRIPTION**

On January 30, 2014 at 2313, with Millstone Power Station Unit 2 (MPS2) in MODE 1 and at 100% reactor power, the circuit breaker for the group 1 pressurizer proportional heaters tripped. With the 'B' emergency diesel generator (EDG) out of service for its maintenance outage and therefore inoperable, Technical Specification Action Statement (TSAS) 3.4.4 action b was entered. TSAS 3.4.4 action b requires MPS2 be in at least HOT STANDBY (MODE 3) with the reactor trip breakers open within 6 hours and in HOT SHUTDOWN (MODE 4) within the following 6 hours, unless one group of proportional heaters is restored to operable status. MPS2 completed the shutdown to MODE 3 at 0457 and restored the group 1 proportional heaters to operable status at 0747 on January 31, 2014. The initiation of the shutdown was reported to the NRC (event number 49779) pursuant to 10 CFR 50.72(b)(2)(i) - The initiation of any nuclear plant shutdown required by the plant's technical specifications.

This condition is being reported pursuant to 10 CFR 50.73(a)(2)(i)(A) - The completion of any nuclear plant shutdown required by the plant's technical specifications.

**Background Information:**

The pressurizer heaters are single unit, direct immersion heaters which protrude vertically into the pressurizer through sleeves welded in the lower head. Each heater is internally restrained from high amplitude vibrations and can be individually removed for maintenance during plant shutdown. Approximately 20 percent of the heaters are connected to proportional controllers which adjust the heat input as required to account for steady state losses and to maintain the desired steam pressure in the pressurizer. These heaters are separated into two banks (approximately 160 kW each) and are provided with diverse vital power.

The pressurizer TS limiting condition for operation 3.4.4 states:

*The pressurizer shall be OPERABLE with:*

- Pressurizer water level < 70%, and*
- At least two groups of pressurizer heaters each having a capacity of at least 130 kW.*

*APPLICABILITY: MODES 1, 2 and 3.*

**ACTION:**

- With only one group of pressurizer heaters OPERABLE, restore at least two groups to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours.*
- With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the reactor trip breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.*

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Millstone Power Station Unit 2	05000336	2014	- 001	- 00	3 OF 3

**NARRATIVE****2. CAUSE**

The direct cause of the need to shutdown the unit was the failure of the group 1 proportional pressurizer heaters concurrent with the 'B' EDG being out of service for planned maintenance.

**3. ASSESSMENT OF SAFETY CONSEQUENCES**

Reactor Coolant system (RCS) pressure control is maintained by pressurizer heaters and the pressurizer spray system. Although the 'B' EDG was out service for planned maintenance, MPS2 was in a normal electrical configuration, therefore one bank of proportional pressurizer heaters was functional (i.e., powered from the offsite power system). Additionally, the pressurizer spray system was not affected, therefore RCS pressure control was always functional. There was no indication of any primary to secondary leakage. There was no release of radioactive material. All safety related systems performed as designed.

**4. CORRECTIVE ACTION**

Troubleshooting activities determined one of the group 1 proportional heaters (P1-B1) had failed. The P1-B1 heater leads were subsequently lifted to remove the failed heater from service. Following this maintenance activity, a pressurizer heater capacity test was performed and verified the group 1 proportional heaters had a capacity of at least 130KW as required by TS 3.4.4 b. The group 1 proportional heaters and the pressurizer were declared operable and MPS2 was subsequently returned to service. Additional corrective actions are being taken in accordance with the station's corrective action program.

**5. PREVIOUS OCCURRENCES**

None

**6. Energy Industry Identification System (EII) codes**

- Electric Resistance Heater – EHTR
- Pressurizer – PZR
- Reactor Coolant System – AB
- Emergency Diesel Generator – DG
- Door – DR