

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



**Dominion**<sup>TM</sup>

**JAN 18 2012**

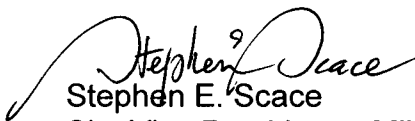
U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Serial No. 12-001  
MPS Lic/GJC R0  
Docket No. 50-423  
License No. NPF-49

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 3**  
**LICENSEE EVENT REPORT 2011-003-00**  
**REACTOR TRIP DUE TO LOSS OF CONDENSER VACUUM**

This letter forwards Licensee Event Report (LER) 2011-003-00 documenting an event that occurred at Millstone Power Station Unit 3, on November 20, 2011. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B), initially reported via event notification 47461 pursuant to 10 CFR 50.72 (b)(2)(iv)(B). 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

LEZZ  
NRK

cc: U.S. Nuclear Regulatory Commission  
Region I  
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NRC Senior Resident Inspector  
Millstone Power Station

**ATTACHMENT**

**LICENSEE EVENT REPORT 2011-003-00**

**MILLSTONE POWER STATION UNIT 3  
DOMINION NUCLEAR CONNECTICUT, INC.**

# LICENSEE EVENT REPORT (LER)

(See reverse 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 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.

**1. FACILITY NAME**

Millstone Power Station - Unit 3

**2. DOCKET NUMBER**

05000423

**3. PAGE**

1 OF 2

**4. TITLE**

Reactor Trip Due to Loss of Condenser Vacuum

**5. EVENT DATE**

MONTH	DAY	YEAR
11	20	2011

**6. LER NUMBER**

YEAR	SEQUENTIAL NUMBER	REV. NO.
2011	003	00

**7. REPORT DATE**

MONTH	DAY	YEAR
XX	XX	2012

**8. OTHER FACILITIES INVOLVED**

FACILITY NAME	DOCKET NUMBER
	05000
FACILITY NAME	DOCKET NUMBER
	05000

**9. OPERATING MODE**

2

**10. POWER LEVEL**

002

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

<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)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" 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 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

**12. LICENSEE CONTACT FOR THIS LER**

**FACILITY NAME**

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	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

**14. SUPPLEMENTAL REPORT EXPECTED**

YES (If yes, complete 15. EXPECTED SUBMISSION DATE)  NO

**15. EXPECTED SUBMISSION DATE**

MONTH	DAY	YEAR

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

On November 20, 2011 at 1758 hours, during power ascension with Millstone Power Station Unit 3 (MPS3) in Mode 2, at 1.7 % reactor power, the operators manually tripped the reactor as required by procedure upon the loss of main condenser vacuum due to the loss of the auxiliary boilers supplying gland sealing steam. All control rods fully inserted into the reactor and all emergency systems functioned as designed. There were no radiological challenges as a result of the event. There were no detrimental effects to station equipment. No limiting safety system settings were exceeded. The operators responded properly to the loss of condenser vacuum and followed the correct procedure flow path. There were no deviations from the procedure guidance in effect.

The auxiliary boilers were restarted, auxiliary steam, gland sealing steam, along with main condenser vacuum were re-established, the unit start-up recommenced and the unit placed in service. Additional corrective actions are being taken in accordance with the station's corrective action program.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Millstone Power Station - Unit 3	05000423	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 2
		2011	-- 003 --	00	

**NARRATIVE**

**1. EVENT DESCRIPTION**

At approximately 1750 hours on November 20, 2011, during power ascension with the unit in Mode 2, at 1.7 % reactor power, a report from the field informed the control room that the auxiliary boilers [SA, BLR] had tripped. Attempts to restart the boilers were directed. Condenser air ejectors [SG, COND, EJR] were already in service, and the 'A' turbine driven main feedwater pump [SJ, P] was running and being placed in service. Steam generator feedwater was being supplied by the emergency feedwater system [BA] as is normal for this power level. A gland seal supply header alarm was received. Gland sealing steam [TC] was being supplied by auxiliary steam from the auxiliary boilers. The crew referred to the appropriate alarm response procedure (ARP) for required actions. Gland seal pressure was monitored in the control room. This monitoring indicated a decreasing trend in gland seal pressure. The guidance in the ARP directed the operators to trip the main turbine and break condenser vacuum to minimize damage to the turbine gland seals. Once condenser vacuum was broken abnormal operating procedure (AOP) 3559 directed a manual reactor trip if condenser vacuum is less than or equal to 7.5 inches of Hg absolute. At 1758 hours the operators initiated a manual reactor trip.

All control rods fully inserted into the reactor and all emergency systems functioned as designed. There were no radiological challenges as a result of the event. There were no detrimental effects to station equipment. No limiting safety system settings were exceeded. The operators responded properly to the loss of condenser vacuum and there were no deviations from the procedure guidance in effect.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

**2. CAUSE**

As directed by plant procedure (AOP 3559) a reactor manual trip is required after a loss of condenser vacuum. Condenser vacuum was lost due to a reduction in auxiliary steam pressure after the loss of both auxiliary boilers. The auxiliary boiler shutdown was caused by a loss of boiler feed due to cavitation of the dearator feed pumps.

**3. ASSESSMENT OF SAFETY CONSEQUENCES**

The operating crew responded to the loss of the auxiliary boilers and the resultant loss of gland sealing steam and ultimately the loss of main condenser vacuum as directed by approved procedures. The reactor was at 1.7% power. All control rods fully inserted into the reactor and all emergency systems functioned as designed. There were no radiological challenges as a result of the event. There were no detrimental effects to station equipment. No limiting safety system settings were exceeded. The operator actions and plant mitigating equipment responded as expected with no safety system failures. There were no challenges to any fission product barrier. Therefore, there were no safety consequences as the result of the reactor trip.

**4. CORRECTIVE ACTION**

The auxiliary boilers were restarted, auxiliary steam, gland sealing steam, and main condenser vacuum were re-established, unit start-up recommenced and the unit placed in service. Additional corrective actions are being taken in accordance with the station's corrective action program.

**5. PREVIOUS OCCURRENCES**

No previous similar events/conditions were identified.

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