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JUN 08 2016

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

Serial No. 16-207
MPS Lic/AVM R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
LICENSEE EVENT REPORT 2016-003-00
LOSS OF SAFETY FUNCTION- SUPPLEMENTARY LEAK COLLECTION AND
RELEASE SYSTEM

This letter forwards Licensee Event Report (LER) 2016-003-00 documenting a condition discovered at Millstone Power Station Unit 3, on April 9, 2016. This LER is being submitted pursuant to 10CFR50.73(a)(2)(v)(C) as a condition that could have prevented the fulfillment of a safety function for systems or structures to control the release of radioactive material, and 10CFR50.73(a)(2)(v)(D) to 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

JEZZ
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
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NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT

LICENSEE EVENT REPORT 2016-003-00
LOSS OF SAFETY FUNCTION- SUPPLEMENTARY LEAK COLLECTION AND
RELEASE SYSTEM

MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.



LICENSEE EVENT REPORT (LER)

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.

1. FACILITY NAME

Millstone Power Station Unit 3

2. DOCKET NUMBER

05000423

3. PAGE

1 OF 3

4. TITLE

Loss of Safety Function- Supplementary Leak Collection and Release System

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	09	2016	2016	003	00	06	08	2016	FACILITY NAME	DOCKET NUMBER
										05000
										05000

9. OPERATING MODE		11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)							
1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)					
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)					
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)					
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)					
10. POWER LEVEL 024	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)					
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)					
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)					
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(2)(i)					
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)					
		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A					

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT

Thomas Cleary, Manager Nuclear Station Licensing

TELEPHONE NUMBER (Include Area Code)

(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

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 April 9, 2016, while in MODE 1 and reducing power to enter a scheduled refueling outage (RFO), Millstone Power Station Unit 3 (MPS3) performed the 'B' train Supplementary Leak Collection and Release System (SLCRS) Negative Pressure Verification Surveillance. This test was completed with unsatisfactory results. Technical Specification (TS) Limiting Condition for Operation (LCO) 3.6.6.1 was entered. Later, on April 9, 2016, with the reactor in MODE 1 and approximately 24 percent power, MPS3 operators conducted the 'A' train SLCRS Negative Pressure Verification Surveillance with unsatisfactory results. Because both trains of SLCRS failed the required surveillances, TS LCO 3.6.6.2 was entered. Operations continued with the planned plant shutdown associated with the RFO and entered COLD SHUTDOWN, MODE 5 at 1241 on April 10, 2016.

SLCRS did not meet the acceptance criteria due to the aggregate impact of a number of dampers not providing effective isolation. SLCRS was restored to operable condition prior to entering MODE 4 when starting back up from RFO17. Detailed procedural steps are being developed for verifying the closed position of SLCRS isolation dampers and being incorporated into the damper post maintenance testing matrix. Associated surveillance procedures are being revised to improve monitoring program for SLCRS isolation dampers.

Since both trains of SLCRS failed to meet TS acceptance criteria, this condition is reportable pursuant to 10CFR50.73(a)(2)(v)(C) as a condition that could have prevented the fulfillment of a safety function for systems or structures to control the release of radioactive material, and 10CFR50.73(a)(2)(v)(D) to mitigate the consequences of an accident.



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

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1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Millstone Power Station Unit 3	05000423	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 3
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1. EVENT DESCRIPTION:

On April 9, 2016, while in MODE 1 and reducing power to enter a scheduled refueling outage (RFO), Millstone Power Station Unit 3 (MPS3) performed the 'B' train Supplementary Leak Collection and Release System (SLCRS) Negative Pressure Verification Surveillance. This test was completed at approximately 1521 hours and did not meet the acceptance criterion of -0.4 inches water gauge. Technical Specification (TS) Limiting Condition for Operation (LCO) 3.6.6.1 states "With one Supplementary Leak Collection and Release System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours."

Later, on April 9, 2016, at approximately 2141 hours with the reactor in MODE 1, MPS3 operators conducted the 'A' train SLCRS Negative Pressure Verification Surveillance and it also did not meet the acceptance criterion of -0.4 inches water gauge. Because both trains of SLCRS failed the required surveillances, TS LCO 3.6.6.2 was entered (SLCRS directly affects the operability of Secondary Containment). The LCO states that "Secondary Containment shall be OPERABLE in MODEs 1, 2, 3, and 4, and with Secondary Containment inoperable, restore Secondary Containment to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." Operations continued with the planned plant shutdown associated with the RFO and entered COLD SHUTDOWN, MODE 5 at 1241 hours on April 10, 2016.

Since both trains of SLCRS failed to meet TS acceptance criteria, this condition is reportable pursuant to 10CFR50.73(a)(2)(v)(C) as a condition that could have prevented the fulfillment of a safety function for systems or structures to control the release of radioactive material, and 10CFR50.73(a)(2)(v)(D) to mitigate the consequences of an accident.

2. CAUSE:

SLCRS did not meet the acceptance criteria of -0.4 inches water gauge due to the aggregate impact of a number of dampers not providing effective isolation.

3. ASSESSMENT OF SAFETY CONSEQUENCES:

Although the SLCRS draw down tests did not meet the acceptance criterion of -0.4 inches water gauge, the test results and the consideration of conservatisms in the design basis radiological consequences analyses support a conclusion of low safety significance.

SLCRS is designed to mitigate the radiological consequences of postulated accidents by filtering the exhaust air from the Secondary Containment. SLCRS is comprised of two redundant trains of exhaust fans and filter units. The safety function of SLCRS is to maintain a negative pressure in the secondary containment to ensure there is no unaccounted, unfiltered leakage to the outside environment from these areas in the event of a loss of coolant accident.



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The SLCRS system and the auxiliary building filtration portion of the auxiliary building ventilation system start on receipt of a Safety Injection Signal. SLCRS is required to draw down the secondary containment to a negative pressure within 120 seconds after the accident.

The negative pressure provided by SLCRS ensures the containment releases occur through the release pathways modeled in the design basis analysis. As long as negative pressure is maintained in all the buildings associated with SLCRS, then the dose consequences are consistent with the analyzed results, which are within the regulatory limits for control room (5 REM TEDE) and offsite doses (25 REM TEDE).

The test acceptance criterion is based primarily upon developing sufficient negative pressure to counteract a relatively high wind speed. The as-tested values of negative pressure from either of the SLCRS trains would have been sufficient to develop negative pressure for the majority of the wind conditions during Cycle 17 operation.

Additionally, there are other conservatisms in the design basis dose calculation relative to expected (i.e., best-estimate) dose consequences. Notably, atmospheric dispersion factors would be significantly less adverse than those used in the design basis dose consequences analysis if the relatively high wind speeds considered in the development of the test acceptance criterion were actually occurring at the site. An additional conservatism is that the containment integrated leak rate testing performed in 2011 showed a leakage rate nearly 1/5th of that assumed in the design basis dose consequences analysis.

4. CORRECTIVE ACTION:

Following troubleshooting and maintenance of both SLCRS trains, the surveillance test was performed satisfactorily on both trains prior to entering MODE 4 when starting back up from RFO17.

Detailed procedural steps are being developed for verifying the closed position of SLCRS isolation dampers following maintenance. The master post maintenance testing matrix for dampers is being updated to refer to these detailed procedural steps. Associated surveillance procedures are being revised to improve monitoring program for SLCRS isolation dampers.

5. PREVIOUS OCCURRENCES:

There have been no previous occurrences within the last three (3) years with the same underlying reason or consequences.

6. ENERGY INDUSTRY IDENTIFICATION SYSTEM (EII) CODES:

- Damper- DMP
- Containment Leakage Control- BD