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Dominion®

November 19, 2014

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Serial No. 14-526
MPS Lic/MAE R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
REPLY TO A NOTICE OF VIOLATION; EA-14-092

Pursuant to the provisions of 10 CFR 2.201, Dominion Nuclear Connecticut, Inc. (DNC) herein provides a reply to the Nuclear Regulatory Commission (NRC) letter dated October 20, 2014 regarding final significance determination for a white finding with assessment follow-up and notice of violation. The finding was identified during an NRC Special Inspection conducted at Millstone Power Station (MPS) to review multiple failures of the MPS Unit 3 turbine-driven auxiliary feedwater pump.

The enclosure provides DNC's response to the violation as specified in the Notice of Violation EA-14-092. The enclosure provides: (1) the reason for the violation, (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved.

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

Sincerely,

Dan Stoddard

Daniel G. Stoddard
Senior Vice President – Nuclear Operations

Enclosure:

Reply to a Notice of Violation EA-14-092

Commitments made in this letter: None

IE01
R6MI

cc: Regional Administrator
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Enclosure

REPLY TO A NOTICE OF VIOLATION
EA-14-092

MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.

NOTICE OF VIOLATION

"During an NRC Special Inspection conducted from February 3 through July 21, 2014, which included on-site inspection and in-office review of documents, and for which an inspection exit was conducted on July 21, 2014, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected.

Millstone Unit 3 Technical Specification (TS) 3.7.1.2.b, "Auxiliary Feedwater System," requires that at least three independent steam generator auxiliary feedwater pumps and associated flow paths be OPERABLE with one steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system. The TS is applicable in Modes 1, 2 and 3.

Millstone Unit 3 TS Limiting Condition for Operation Action Statement 3.7.1.2(c) states that, with one turbine-driven auxiliary feedwater pump inoperable, restore the affected equipment 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.

Contrary to the above, from August 11, 2013, to February 3, 2014, measures established by Dominion Nuclear Connecticut, Inc. (Dominion) were not sufficient to assure that a condition adverse to quality involving Millstone 3 turbine-driven auxiliary feedwater (TDAFW) pump was promptly identified and corrected. Specifically, in spite of the TDAFW pump experiencing three overspeed trips during this timeframe, Dominion did not identify that the pump was operating in an adverse configuration due to the installation, on May 12, 2013, of an inappropriate cam follower bearing within the turbine control valve linkage. This discrepant condition rendered the TDAFW pump inoperable for periods of time exceeding the limiting condition for operation specified in Millstone 3 Technical Specification (TS) 3.7.1.2.

This violation is associated with a White Significance Determination Process finding."

Response to Notice of Violation

1) Reason for the violation, or, if contested, the basis for disputing the violation or severity level

The reason for the violation is that DNC did not perform adequate troubleshooting to determine the direct cause of repeat failures of the TDAFW pump to run as expected. The direct cause of the TDAFW pump overspeed trips on November 4, 2013, December 18, 2013, and January 23, 2014, was the installation of an incorrect cam follower bearing (made by Sealmaster) which caused the steam control valve linkage to intermittently stall in the open position. The incorrect cam follower bearing had been shipped from Dresser-Rand with a correct certificate of conformance (C of C) and with the same part number as the correct bearing (made by Heim). Acknowledgement of this discrepancy was formally recognized when Dresser-Rand later issued a notification in accordance with 10 CFR 21 on this issue.

After replacement of the Unit 3 Sealmaster bearing with another Sealmaster bearing following the January 23, 2014 trip, DNC had additional discussions with Dresser-Rand regarding failure mechanisms. On January 30, 2014, it was determined that Dresser-Rand had shipped the incorrect cam follower bearings to Millstone. The correct cam follower bearing (by Heim) was installed on February 3, 2014.

In addition, on January 31, 2014, DNC verified that the cam follower bearing on the Unit 2 TDAFW pump was the correct bearing.

2) Corrective steps that have been taken and the results achieved

The cam follower bearing was replaced, the governor was adjusted, and the TDAFW pump was tested satisfactorily. No additional overspeed trips have occurred since the cam follower bearing was replaced with the proper bearing.

DNC has implemented a TDAFW pump troubleshooting guide. The TDAWF pump troubleshooting guide includes methods for validating assumptions and conclusions specific to the TDAFW pump (e.g., pull test technical basis and acceptance criteria). The troubleshooting guide also includes industry standards such as those in the Electrical Power Research Institute (EPRI) Terry Turbine Maintenance Guide – AFW Application.

DNC also revised procedure MA-AA-103, "Conduct of Troubleshooting." The procedure now includes a requirement to assign a manager the responsibility to provide oversight of complex troubleshooting team leads (TTLs). The responsibilities of the manager include ensuring assumptions and conclusions are properly validated. These changes were implemented during troubleshooting activities performed after August 25, 2014.

Two case studies were developed based on the results the root cause evaluation performed for this issue. The first case study included a review of INPO'S "Traits of a

Healthy Nuclear Safety Culture," and was delivered to first line supervisors and above. The second case study is associated with the engineering issues identified in the root cause evaluation. This case study was delivered to the engineering staff during engineering support continuing training in July and August 2014.

During the recently conducted Millstone Unit 3 refueling outage, blueprinting was performed on the TDAFW pump's steam control valve linkage using vendor supplied proprietary drawings to ensure the linkage meets optimum tolerances.

3) Corrective steps that will be taken

Effectiveness reviews will be performed to assure the adequacy of the implemented corrective actions.

4) Date when full compliance will be achieved

The specific condition adverse to quality was identified and corrected. Thus, the TDAFW pump has been returned to full compliance regarding the discrepant condition (i.e., inappropriate cam follower bearing) described in the violation. The final effectiveness review of the corrective actions is scheduled for completion by January 30, 2015.