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Millstone 3 – Quarterly Plant Inspection Findings

4Q/2017 – Plant Inspection Findings

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Initiating Events

Mitigating Systems

Significance: G May 11, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

Change of 'C' Charging Pump Testing Requirements Contrary to ASME OM

The inspectors identified a Green NCV of 10 CFR 50.55a(f) because Dominion did not perform all required inservice testing (IST) of the Unit 3 'C' charging pump, 3CHS*P3C, in accordance with the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code. Specifically, from April 15, 2016, to the end of the inspection period, Dominion stopped the required Group A quarterly surveillances which could result in a condition where degradation of the charging pump would remain undetected by IST testing. Dominion entered this issue into their CAP as CR 1064337.

This finding was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, as it adversely affected the Equipment Performance attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Eliminating quarterly IST surveillance tests could challenge the reliability of the 'C' charging pump and allow degradation of the equipment remaining undetected. In accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings," and IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," Section A, "Mitigating Systems, Structures or Components and Functionality," the finding screened to be of very low safety significance (Green), when the deficiency affecting the design or qualification whereupon the component maintains operability or functionality question was answered "yes." The 'C' charging pump has not yet experienced any failures. This finding has a cross-cutting aspect in Human Performance, Change Management, in accordance with IMC 0310, "Aspects within the Cross-Cutting Areas," where leaders use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, Dominion evaluated this change to the IST program without requesting relief from the ASME Code requirements.

Inspection Report# : 2017001 (*pdf*)

Significance:  Mar 31, 2016

Identified By: NRC

Item Type: VIO Violation

Repetitive Failures to Correct Unit 3 Turbine Driven Auxiliary Feedwater Pump Performance Issues

The inspectors identified a Green NOV of Title 10 of the Code of Federal Regulations (10 CFR) 50, Appendix B, Criterion XVI, "Corrective Action," for Dominion's repetitive failure to take effective corrective actions for significant conditions adverse to quality involving the degradation of the Unit 3 turbine driven auxiliary feedwater (TDAFW) pump turbine control valve linkage. Specifically, Dominion's corrective actions to correct the TDAFW control system have not fully considered all potential failure modes such that continued unreliable operation due to linkage and control systems problems resulted in an overspeed trip of the TDAFW system in February 2016. Inspectors have previously documented this condition under two separate violations of 10 CFR 50, Appendix B, Criterion XVI.

The performance deficiency was determined to be more than minor since it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected its objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," the inspectors determined this issue required a detailed risk evaluation based on the finding representing an actual loss of function of a single train for greater than its technical specification (TS) allowed outage time. A Region I Senior Reactor Analyst (SRA) completed a detailed risk evaluation and concluded the risk significance of this issue was in the high E-8 range, or very low safety significance (Green). In accordance with IMC 0310, "Aspects within the Cross-Cutting Areas," dated December 4, 2014, this finding has a cross-cutting aspect in Human Performance, Design Margins, in that the organization failed to operate and maintain equipment within design margins. The Unit 3 TDAFW has little margin to inoperability. Dominion did not pursue a thorough review of the potential interactions of different failure modes after correcting the obvious causes from past failures, which contributed to the February 22, 2016, overspeed event.

Inspection Report# : 2016001 (*pdf*)

Barrier Integrity

Significance:  Oct 27, 2017

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Inadequate Procedure Results in Inadvertent Lowering of Spent Fuel Pool Level

A self-revealing NCV of very low safety significance (Green) of Technical Specification (TS) 6.8, "Procedures," was identified because Dominion did not adequately establish Operating Procedure (OP) 2305, "Spent Fuel Pool Cooling and Purification System." Specifically, from initial issuance until June 20, 2017, the procedure did not direct operators to verify the primary demineralizer bypass valve was closed while lining up to fill the spent fuel pool from the coolant waste receiver tanks, resulting in an unexpected loss of spent fuel pool inventory. Dominion has documented this condition within their corrective action program (CAP) as condition report (CR) 1064323, revised procedure OP 2305, and performed an apparent cause evaluation.

The inspectors determined that the finding was more than minor because it was associated with the procedure quality attribute of the Barrier Integrity cornerstone and adversely affected its objective to provide reasonable assurance that physical design barriers, such as fuel cladding, protect the public from radionuclide releases caused by accidents or events. Specifically, spent fuel pool level was inadvertently lowered when operators aligned the system in accordance with OP 2305, which resulted in a reduced net positive suction head for the spent fuel pool cooling pumps as indicated by control room alarm. The finding screened to be of very low safety significance (Green) because it did not result in a loss of spent fuel pool water inventory below the minimum analyzed level limit and did not cause the spent fuel pool temperature to exceed the maximum analyzed temperature limit.

This finding has a cross-cutting aspect in the Human Performance cross-cutting area, Avoid Complacency because Dominion did not recognize and plan for the possibility of a latent deficiency in procedure OP 2305 when used while the primary demineralizers were bypassed.

Inspection Report# : 2017003 (*pdf*)

Emergency Preparedness
Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : February 01, 2018

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