



Home > Nuclear Reactors > Operating Reactors > Reactor Oversight Process > Plant Summaries > Millstone 2 > Quarterly Plant Inspection Findings

Millstone 2 – Quarterly Plant Inspection Findings

4Q/2017 – Plant Inspection Findings

On this page:

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness
- Occupational Radiation Safety
- Public Radiation Safety
- Security

Initiating Events

Mitigating Systems

Significance: G Aug 18, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Replace Auxiliary Feedwater Solenoid Valves within the Required Frequency

The inspection team identified a Green non-cited violation of Technical Specification 6.8.1.a, "Procedures," because Dominion did not implement procedures as required by Regulatory Guide 1.33, Revision 2, Appendix A.9, "Procedures for Performing Maintenance," to properly maintain the environmental qualification of safety-related auxiliary feedwater solenoid valves 2-FW-43AS and 2-FW-43BS. Specifically, Dominion failed to implement the recurring work event task and associated work order to ensure that these auxiliary feedwater solenoid valves were replaced prior to exceeding the qualified life of the solenoid coil and elastomer components. Dominion entered this issue into their corrective action program as condition report 1076005, planned replacement of the solenoid valves, and calculated an alternate ambient temperature for use in determining the qualified life of the solenoid valves. Dominion re-performed the qualified life calculation using this revised ambient temperature and extended the qualified life to support operability.

The inspection team determined that this issue was more than minor because it adversely impacted 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. This issue is also similar to more-than-minor examples 3.j and 3.k presented in IMC 0612, Appendix E, "Examples of Minor Issues." Specifically, this performance deficiency resulted in a condition where there was reasonable doubt as to the operability and reliability of the solenoid valves for both auxiliary feedwater regulating valves, and thus, both trains of auxiliary feedwater. As such, Dominion needed to conduct additional engineering evaluation to extend the service life of the solenoid valves, thus justifying that the valves would continue to perform their safety function. The inspection team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the

reliability of a mitigating structure, system, or component, and the structure, system, or component maintained its operability or functionality. The inspection team determined that no cross-cutting aspect was applicable because the finding was not indicative of current performance.

Inspection Report# : 2017007 (*pdf*)

Significance:  May 11, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Maintain CST Temperature in Accordance with Procedure Requirements

The inspectors identified a Green NCV of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to adequately implement Operating Procedure (OP) 2319B, "Condensate Storage and Surge System." Specifically, Dominion failed to maintain the Millstone Unit 2 condensate storage tank (CST) temperature above procedural requirements. Dominion has documented this condition within their corrective action program (CAP) as condition report (CR) 1066291.

The inspectors determined this finding was more than minor as it adversely affected the protection from external factors 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. The reliability of the mitigating systems heat removal function was challenged based upon the reasonable doubt of lost operability of the CST to provide a sufficient supply of water to the auxiliary feedwater (AFW) system. There was reasonable doubt of lost operability due to indications of CST water temperature below OP 2319B prescribed limitations, winter temperatures falling, and an inability to restore CST recirculation system in a timely manner. The finding was determined to be of very low safety significance (Green), when all screening questions were answered "No" as the conditions discussed in the Dominion engineering evaluation, approved on January 7, 2017, were capable of showing that no safety systems or functions were lost. This finding has a cross-cutting aspect in the Problem Identification and Resolution, Resolution, in that Dominion did not take effective corrective actions or corrective maintenance to address CST recirculation pump degradation in a timely manner, prior to the onset of winter, commensurate with their safety significance such that operations could maintain CST water temperature above procedurally defined limitations.

Inspection Report# : 2017001 (*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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