

Millstone 3

4Q/2004 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2004

Identified By: NRC

Item Type: FIN Finding

FAILURE TO IMPLEMENT POST MAINTENANCE TESTING TO IDENTIFY IMPROPERLY PERFORMED VALVE REPAIRS ON INSTRUMENT AIR DRYER SYSTEM

The inspectors identified a finding for the failure to implement adequate post-maintenance testing following valve repairs on the instrument air system. The post-maintenance test (PMT), as performed by Operations, did not adequately cycle a 4-way valve to ensure maintenance had been performed correctly. As a result of the improper PMT performance, Dominion did not identify the maintenance errors following reinstallation of the 4-way valves prior to declaring the system operable. Subsequently, the instrument air system lost air pressure 4 hours after restoring the system to service. However, the transient was limited because a service air system cross-tie valve opened to restore instrument air pressure. Following the air transient, Dominion performed corrective maintenance, and then implemented a procedure to fully retest the instrument air dryer prior to declaring it operable.

The finding is more than minor because it affected the equipment performance attribute of the Initiating Events cornerstone objective of limiting the likelihood of events that upset plant stability at power. The failure to specify adequate PMT led directly to a degraded instrument air system and increased the likelihood of a Loss of Instrument Air event. The risk of this finding was determined to be of very low safety significance (Green) because, although the instrument air system vented to atmosphere, the service air system cross-tie valve to the instrument air system opened and air pressure was restored. The instrument air pressure stabilized and recovered such that there was no actual loss of equipment due to the temporary drop in pressure and an actual loss of instrument air did not occur. This finding is related to the cross-cutting issue of Human Performance.

Inspection Report# : [2004005\(pdf\)](#)

Mitigating Systems

Significance:  Sep 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY IMPLEMENT TS 3.8.3.2, ONSITE POWER DISTRIBUTION - SHUTDOWN

The inspectors identified a non-cited violation of Technical Specification (TS) 3.8.3.2, Onsite Power Distribution - Shutdown, for the failure to enter Technical Specifications following the loss of a vital inverter. The required actions were to immediately stop all reactivity additions. However, operators failed to stop both a plant heatup and reactor coolant system (RCS) dilutions (hydrazine addition), which resulted in positive reactivity additions to the reactor. Dominion specified operator training to reinforce the management expectation for completing procedures, however, additional corrective actions will be specified in an upcoming revision to the Licensee Event Report based on the issues identified by the inspectors in the finding description. Dominion has entered this issue into their corrective action program. This issue is more than minor because it is associated with the human performance attribute of the Mitigating System Cornerstone and the objective of ensuring the availability of systems to respond to initiating events to prevent undesirable circumstances. The failure of the vital inverter resulted in an electrical lineup that did not meet the TS requirements for one complete train of electrical buses. Additionally, the failure to recognize the need to enter TS precluded taking corrective actions to prevent adding positive reactivity with this electrical lineup. Several positive reactivity additions from heatup and RCS dilutions occurred as a result. The finding is of very low safety significance because the reactivity addition from the heatup and the dilutions was small compared to the reactivity needed for criticality. Additionally, the finding did not increase the likelihood of a loss of RCS inventory, degrade Dominion's ability to add inventory if needed, or degrade the ability to recover the residual heat removal system if it was lost. This finding is related to the cross-cutting issue of Human Performance.

Inspection Report# : [2004007\(pdf\)](#)

Significance:  Sep 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

DOMINION FAILED TO ESTABLISH PRECAUTIONS AND PREREQUISITES TO PREVENT PLANT CONFIGURATION CHANGES THAT COULD LEAD TO AIR ENTRAINMENT IN THE RHR SYSTEM

The inspectors identified a non-cited violation of Technical Specification (TS) 6.8.1a for the failure to adequately implement procedures for

venting the reactor coolant system (RCS) and the residual heat removal (RHR) system. On May 28, 2004, Dominion conducted a quarterly vent and valve lineup of the "A" train of the RHR system in which air was vented from several vent valves. The inspectors investigated whether the voids in the "A" train of the RHR system and portions of suction piping leading to both trains of the safety injection (SI) and charging systems would have adversely affected these systems' ability to respond to a small break loss of coolant accident (SBLOCA). The inspectors reviewed the engineering technical evaluation and determined that the amount of air in the RHR system did not adversely impact the RHR pumps, SI pumps, or the charging pumps. The inspectors reviewed Dominion's root cause investigation and determined that the cause of the entrapped air was due to securing one of the two RHR pumps on April 28, 2004, during the RCS sweep and vent procedure following completion of the refueling outage. Dominion revised the RCS sweep and vent procedure to add a precaution to avoid securing an RHR pump during this procedure. Dominion has entered this issue into their corrective action program. This issue is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and the objective to ensure availability of systems that respond to initiating events to prevent undesirable consequences. The entrapped air had the potential to make the "A" RHR pump, SI pumps, and charging pumps inoperable. The finding is of very low safety significance because it did not represent an actual loss of safety function of the RHR, SI, or charging system since the amount of air identified in these systems would not have prevented them from functioning. This finding is related to the cross-cutting issue of Human Performance.

Inspection Report# : [2004007\(pdf\)](#)

Barrier Integrity

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Significance: Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE CORRECTIVE ACTIONS TO PREVENT REPETITIVE FAILURES OF THE QSS AND RSS CONTAINMENT ISOLATION CHECK VALVES

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, which requires, in part, that conditions adverse to quality, such as failures, are promptly identified and corrected. Contrary to this requirement, Dominion did not take effective corrective actions to address repetitive failures of local leak rate tests (LLRT) for the quench spray system and recirculation spray system containment isolation check valves. The inspectors determined that over the span of 8 years, the same known failure mechanism resulted in an approximate 50% LLRT surveillance test failure rate for these check valves. This finding is more than minor because it is associated with the Barrier Integrity cornerstone attribute of structures, systems, and components (SSC)/Barrier Performance - containment isolation SSC reliability. Unacceptable leakage past these check valves resulted in a decrease in operational capability of the containment isolation system and a decrease in reliability of containment isolation SSCs. This violation has been determined to have a very low safety significance since there was not an actual open pathway in the physical integrity of reactor containment. This finding is related to the cross-cutting issue of Problem Identification and Resolution.

Inspection Report# : [2004006\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Significance: N/A Feb 27, 2004

Identified By: NRC

Item Type: FIN Finding

PROBLEM IDENTIFICATION AND RESOLUTION TEAM INSPECTION RESULTS

The team determined that the licensee was generally effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Once entered into the system, issues were usually prioritized appropriately and in a timely fashion; and were properly evaluated commensurate with the safety significance. Overall, the evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. However, in some cases, the corrective action program was not effectively used to resolve and prevent problems. There were some instances where issue evaluations, as well as the associated corrective actions, were not effective in resolving problems. There were also some examples in which condition reports were characterized at a lower category than prescribed by the corrective action program.

Inspection Report# : [2004002\(pdf\)](#)

Last modified : March 09, 2005