

Monticello

1Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

INADEQUATE SYSTEM ISOLATION DURING CHECK VALVE MAINTENANCE.

A finding of very low safety significance and associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when the licensee failed to adequately implement the requirements of their fleet tagging procedure, a procedure affecting quality, during maintenance on the safety-related CST-88 'B' low pressure coolant injection (LPCI) fill line check valve. This failure resulted in an unintentional breach of the condensate service water (CSW) system and subjected workers to a potentially contaminated, pressurized water source. Additionally, at the time of the breach, the CSW system was one of the water sources being credited in support of the shutdown safety function of inventory control. The licensee entered this issue into the corrective action program (CAPs 1275935 and 1275963) and took immediate corrective actions to restore the check valve to its installed configuration to terminate the water leakage. At the time of this report, the licensee had assembled a team to perform a root cause evaluation.

The inspectors determined that the licensee's failure to adequately implement their tagging process to protect workers and equipment from the effects of breaching the pressurized CSW header during maintenance on a safety-related check valve was a performance deficiency because it was the result of the failure to meet a requirement, the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because the performance deficiency could have reasonably been viewed as a precursor to a more significant event. In this instance, the performance deficiency resulted in an unintentional breach of the operating CSW system and subjected workers to a potentially contaminated, pressurized water source. Additionally, at the time of the breach, the CSW system was one of the water sources being credited in support of the shutdown safety function of inventory control. As a result, this finding was evaluated under the Initiating Events Cornerstone.

The inspectors applied NRC IMC 0609, "Significance Determination Process," Appendix G, "Shutdown Operations Significance Determination," Attachment 1, to this finding. The finding was determined to have very low safety significance because it did not adversely affect core heat removal, inventory control, power availability, containment control, or reactivity guidelines. This finding has a cross-cutting aspect in the area of Human Performance, work control, because the licensee failed to appropriately plan work activities by incorporating job site conditions impacting plant systems and components (H.3(a)).

Inspection Report# : [2011002](#) (*pdf*)

Mitigating Systems

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: FIN Finding

FAILURE TO PROPERLY STORE LOOSE MATERIAL IN CLOSE PROXIMITY TO SAFETY RELATED EQUIPMENT.

A finding of very low safety significance was identified by the inspectors when the licensee failed to properly control loose material located above the sensing lines for the safety related residual heat removal pump minimum flow switches. No violation of NRC requirements associated with this finding was identified. Once informed of the issue, the licensee took action to relocate the material to a proper storage location. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having Work Practices components, and involving aspects associated with the licensee defining and effectively communicating expectations regarding procedural compliance and personnel following procedures. [H.4(b)].

The inspectors determined that the licensee's failure to properly store loose material located in close proximity to safety related equipment was a performance deficiency, because it was the result of the failure to meet a requirement; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, Power Reactor Inspection Reports, Appendix B, and determined that the issue was more than minor because it impacted the protection against external events attribute of the Mitigating System Cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. The inspectors utilized Column 2 of the Table 4a worksheet to screen the finding. As a result of the inspectors answering "No" to all five questions, the finding was screened to be of very low safety significance.

Inspection Report# : [2010005](#) (pdf)

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO COMPLY WITH TURBINE FLOOR HEAVY LIFT PROCEDURE.

A finding of very low safety significance and associated non cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee, on two occasions during the lift and transfer of the General Electric Zinc Injection Passivation (GEZIP) skid, failing to adhere to the load height restrictions documented in Procedure 8117, "Turbine Maintenance Procedure Heavy Load Movement over Safe Shutdown Equipment on the Turbine Floor," a procedure affecting quality. This resulted in the licensee not evaluating and managing the risk associated with moving a heavy load above and in close proximity to the Division I emergency service water piping. The licensee immediately placed a restriction on moving heavy loads on the turbine floor until the appropriate corrective actions can be implemented. The inspectors determined that the performance deficiency affected the cross cutting area of Human Performance, having work control components, and involving aspects associated appropriately planning work activities by incorporating risk insights. [H.3(a)]

The inspectors determined that the failure to adequately evaluate two deviations from the acceptable heavy load path for the transport and placement of the new GEZIP skid was a performance deficiency, because it was the result of the failure to meet a requirement, and the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, Appendix B, and determined that the issue was more than minor because it could reasonably be viewed as a precursor to a significant event. Specifically, the licensee failed to manage the risk of moving a heavy load above and in close proximity to the Division I emergency service water piping.

Inspection Report# : [2010003](#) (pdf)

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

UNACCEPTABLE PRECONDITIONING OF 250 VDC BATTERY CHARGERS.

The inspectors identified a finding of very low safety significance and associated NCV of Technical Specification (TS) 5.4.1 for the licensee's failure to appropriately implement an applicable procedure recommended in Regulatory

Guide 1.33, Appendix A, Revision 2, February 1978. Specifically, the licensee approved TS surveillance activities to commence for the 250 Vdc battery chargers in 2008 without ensuring that the equipment was tested in the as-found condition. Due to improper sequencing of preventive maintenance activities for the battery chargers, and subsequent inadequate review of the maintenance and testing order, the 250 Vdc battery chargers were unacceptably preconditioned prior to performing testing to satisfy the 24 month TS Surveillance Requirement 3.8.4.2. These issues were identified by the inspectors prior to the 2010 performance of the same surveillance tests. The licensee took immediate corrective actions and entered the issues into their corrective action program. The inspectors determined that the performance deficiency affected the cross cutting area of Human Performance, having work control components, and involving aspects associated with appropriately coordinating work activities by incorporating actions to address the impact of the work on different job activities. [H.3(b)]

The inspectors determined that the issue was a performance deficiency because it was the result of the failure to meet a requirement, and the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors determined that the performance deficiency was more than minor and a finding because, if left uncorrected, it would have had the potential to lead to a more significant safety concern. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings" to this finding. Under Column 2 of the Table 4a worksheet, the inspectors answered "Yes" to Question 1 because the finding did not result in loss of operability or functionality. Therefore, the finding was considered to be of very low safety significance. Inspection Report# : [2010003](#) (pdf)

Barrier Integrity

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONTROL A LEVEL 1 FME AREA DURING NEW FUEL RECEIPT ACTIVITIES.

A finding of very low safety significance and associated NCV of Technical Specification 5.4, "Procedures," was identified by the inspectors when the licensee failed to implement the requirements of their foreign material exclusion (FME) and control procedure during new fuel receipt activities. Specifically, the inspectors observed two operators exiting and re-entering a Level 1 FME area, without the knowledge of the FME monitor, at a point that was not being controlled by the FME monitor. When informed of the issue, the licensee took corrective actions to address the issue.

The inspectors determined that the licensee's failure to adequately implement the requirements of their FME control procedure during new fuel receipt activities to prevent the unmonitored access of two operators into a Level 1 FME area was a performance deficiency because it was the result of the failure to meet a requirement or a standard, the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the human performance attribute of the Barrier Integrity Cornerstone's objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. The inspectors utilized Column 3 of the Table 4a worksheet to screen the finding. Since the finding only had the potential to impact the fuel barrier, it screened to be of very low safety significance. This finding has a cross-cutting aspect in the area of Human Performance, Work Practices because the licensee did not define and effectively communicate expectations regarding procedural compliance and personnel following procedures (H.4(b)).

Inspection Report# : [2011002](#) (pdf)

Significance: G Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IMPLEMENT CORRECTIVE ACTIONS TO ADDRESS A DEFICIENCY ASSOCIATED WITH THE DOOR INTERLOCK ON AIRLOCK 413.

A finding of very low safety significance and associated NCV of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified by the inspectors when the licensee failed to implement corrective actions for a condition adverse to quality. The condition adverse to quality was a deficiency associated with the door interlock on airlock 413 which contributed to loss of secondary containment boundary event. Subsequent to the August 5, 2010, event, the licensee initiated administrative controls on all airlocks with a similar design to airlock 413 and are currently evaluating other means of addressing air lock integrity. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Problem Identification and Resolution, having Corrective Action components, and involving aspects associated with thoroughly evaluating problems such that the resolution addresses the causes and extent of condition as necessary. [P.1(c)].

The inspectors determined that the licensee's failure to implement adequate corrective actions for a condition adverse to quality was a performance deficiency because it was the result of the failure to meet a requirement; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, Power Reactor Inspection Reports, Appendix B, and determined that the issue was more than minor because it impacted the configuration control attribute of the Barrier Integrity Cornerstone's objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. Since the finding resulted in a momentary loss of the secondary containment boundary, the inspectors evaluated the finding under the Containment Barrier Cornerstone. Utilizing Column 4 of the Table 4a worksheet, the inspectors answered "Yes" to Question 1. Since the finding only resulted in the degradation of the radiological barrier function provided for the control room; auxiliary building; spent fuel pool; or standby gas treatment system; the finding was screened to be of very low safety significance.

Inspection Report# : [2010005](#) (*pdf*)

Significance: G Sep 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

INADEQUATE ELECTRICAL ISOLATION DURING DEMOLITION ACTIVITY.

A finding of very low safety significance and associated non cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self revealed when the licensee failed to adequately implement the requirements of their fleet tagging procedure, a procedure affecting quality, during the demolition of the 'A' train of the combustion gas control system (CGCS). This failure directly led to workers being unprotected from existing 24 Vdc, and potentially 120 Vac, during the removal of cables C259 SV40008A/1 and C259 SV4009A/1. In addition, cutting of the energized cables resulted in the loss of position indication for three primary containment isolation valves which are required by Technical Specifications. The licensee promptly took actions to restore the affected containment isolation valves to an operable status and entered this event into their corrective action program for further evaluation. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having work control components, and involving aspects associated with appropriately coordinating work activities by incorporating job site conditions which may impact human performance and plant systems and components. [H.3(a)]

The inspectors determined that the licensee's failure to adequately implement their work order planning and tagging processes to protect workers and equipment from existing electrical hazards during the demolition of the 'A' train of the CGCS system was a performance deficiency because it was the result of the failure to meet a requirement; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. Since the finding directly resulted in the loss of position indication for three containment isolation valves which are required by Technical Specifications, the inspectors evaluated the finding under the Containment Barrier Cornerstone. Utilizing Column 4 of the Table 4a worksheet, the inspectors answered "Yes" to question 1. Since the

finding only resulted in the degradation of the radiological barrier function provided for the control room, auxiliary building, spent fuel pool, or standby gas treatment (SBGT) system, the finding was screened to be of very low safety significance.

Inspection Report# : [2010004](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

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