

# Monticello

## 4Q/2010 Plant Inspection Findings

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### Initiating Events

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### 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:** **G** 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)

**Significance:** **SL-IV** Mar 26, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform 10 CFR 50.59 Evaluation For Isolation of Room Cooler Which Addressed Temperature Limitations**

The inspectors identified a finding of very low safety significance associated with an NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," Section (d)1 for the licensee's failure to perform a written evaluation, which provided the bases for the determination that a change did not require a license amendment. Specifically, the licensee failed to provide a basis which addressed room temperature limitations as to why the isolation of a high pressure coolant injection (HPCI) room cooler did not require prior NRC approval. This failure impacted the NRC's regulatory process, and is therefore being assessed for traditional enforcement. The licensee entered this issue into their corrective action program and determined that no immediate corrective actions were necessary because administrative controls were in place to ensure that the HPCI room temperature would not exceed the calculated initial room temperature limitation.

The inspectors determined that the finding was more than minor because they could not reasonably determine that the changes would not have ultimately required NRC prior approval, thus meeting the criteria for a Severity Level IV violation. The finding affected the Mitigating Systems cornerstone attribute of Equipment Performance to ensure the availability and reliability of systems (HPCI) that respond to initiating events to prevent undesirable consequences. This finding has a cross-cutting aspect in the area of human performance within the resources component because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety in that training of personnel was not sufficient. [H.2(b)] (Section 1R17.1.b)

The associated performance deficiency is tracked as item 2010-06-02.

Inspection Report# : [2010006](#) (pdf)

**Significance:**  Mar 26, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform 10 CFR 50.59 Evaluation For Isolation of Room Cooler Which Addressed Temperature Limitations - performance deficiency**

The inspectors identified a finding of very low safety significance for the licensee's failure to perform a written evaluation, which provided the bases for the determination that a change did not require a license amendment as required by 10 CFR 50.59. Specifically, the licensee failed to provide a basis which addressed room temperature limitations as to why the isolation of a high pressure coolant injection (HPCI) room cooler did not require prior NRC approval. The licensee entered this issue into their corrective action program and determined that no immediate corrective actions were necessary because administrative controls were in place to ensure that the HPCI room temperature would not exceed the calculated initial room temperature limitation.

The inspectors determined that the finding was more than minor because they could not reasonably determine that the changes would not have ultimately required NRC prior approval. The inspectors determined that the finding was of very low safety significance because the finding did not result in loss of operability or functionality. The finding affected the Mitigating Systems cornerstone attribute of Equipment Performance to ensure the availability and reliability of systems (HPCI) that respond to initiating events to prevent undesirable consequences. This finding has a cross-cutting aspect in the area of human performance within the resources component because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety in that training of personnel was not sufficient. [H.2(b)] (Section 1R17.1.b)

The associated traditional enforcement action is tracked as item 2010-006-01.

Inspection Report# : [2010006](#) (pdf)

**Significance:** SL-IV Mar 04, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure of an NDE Technician to Follow an Ultrasonic Thickness Examination Procedure**

A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified by the inspectors for a contract Non-Destructive Examination (NDE) technician's failure to follow a procedure during an Ultrasonic (UT) examination of the Reactor Core Isolation Cooling (RCIC) barometric condenser shell. Specifically, the technician failed to properly perform a calibration of the UT examination equipment. The underlying performance deficiency (PD) associated with this violation did not result in a finding due to the minor safety-significance of the PD and hence the PD was not evaluated for cross-cutting aspects (i.e., it screened out as minor). Specifically, the PD was similar to Example 4b of IMC 0612, Appendix E, "Examples of Minor Issues," in that, it involved an insignificant procedural error, failure to calibrate UT equipment per procedure. The failure had minimal impact on the UT readings (within UT test equipment tolerances). However, due to the willfulness of the violation, the violation was processed through the traditional enforcement process and assigned a Severity Level IV. Specifically, the NRC Enforcement Policy states that a violation may be considered more significant than the underlying non-compliance if it includes indications of willfulness. As part of its corrective actions, the licensee re-examined the technician's prior UT examinations and found insignificant variation between re-examined UT examination results and the technician's original UT examination results.

Inspection Report# : [2010009](#) (pdf)

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## Barrier Integrity

**Significance:**  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)

**Significance:**  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**SRV LOW LOW SET SURVEILLANCE PROCEDURE IMPLEMENTATION.**

The inspectors identified a finding of very low safety significance and NCV of Technical Specification 5.4.1 for the licensee failing to appropriately implement an applicable procedure recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Specifically, when unexpected local alarms were received during the performance of the safety relief valve (SRV) low low set system quarterly test, Instrument and Control (I&C) personnel elected to attempt to clear the alarms prior to notifying operations and without fully understanding which alarms were present. The surveillance procedure provided no guidance on how to clear the unexpected module trip alarms and relay energized lights. The licensee entered this issue into their corrective action program. The inspectors determined that the performance deficiency affected the cross cutting area of Human Performance, having decision-making components, and involving aspects associated with using conservative assumptions in decision making. [H.1(a)] The inspectors determined that the performance deficiency was more than minor and a finding because it was associated with the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At Power Situations," using the Phase 1 Worksheet for the Barrier Integrity Cornerstone. Since the inspectors answered 'no' to all four questions in the Containment Barrier column of the Characterization Worksheet for Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones, the inspectors concluded that the finding was of very low safety significance.

Inspection Report# : [2010002](#) (*pdf*)

**Significance:**  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE CORRECTIVE ACTIONS FOR UNEXPECTED SRV LOW LOW SET TRIPS ENCOUNTERED DURING SURVEILLANCE TESTING.**

The inspectors identified a finding of very low safety significance and NCV of 10 CFR 50, Appendix B, Criterion XVI, for the licensee's failure to adequately evaluate and take corrective actions for a condition adverse to quality. Specifically, the licensee failed to appropriately evaluate the implications of the unexpected trips of high/low pressure switches, PSHL 4065A and PSHL 4066A, during the January 28, 2009, performance of the SRV low low set system quarterly tests and implement appropriate corrective actions. The failure to adequately evaluate the unexpected trips and correct the condition adverse to quality directly contributed to a repeat occurrence and subsequent unplanned Technical Specification Action entry during the January 27, 2010, performance of the same surveillance test. The licensee entered the issue into their corrective action program. The inspectors determined that the performance deficiency affected the cross cutting aspect in the area of Problem Identification and Resolution, having corrective action program components, and involving aspects associated with the licensee thoroughly evaluating problems such that the resolutions address causes and extent of conditions, as necessary. [P.1(c)]

The inspectors determined that the performance deficiency was more than minor and a finding because it was associated with the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At Power Situations," using the Phase 1 Worksheet for the Barrier Integrity Cornerstone. Since the inspectors answered 'no' to all four questions in the Containment Barrier column of the Characterization Worksheet for Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones, the inspectors concluded that the finding was of very low safety significance.

Inspection Report# : [2010002](#) (*pdf*)

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**Emergency Preparedness**

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# Occupational Radiation Safety

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## Public Radiation Safety

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## 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.

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## Miscellaneous

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