Monticello
4Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2013
Identified By: Self-Revealing
Item Type: FIN Finding
RECIRCULATION SYSTEM VULNERABILITIES DUE TO INADEQUATE MODIFICATION REVIEW.
. A self revealed finding of very low safety significance occurred on August 27, 2013, due to the licensee's failure to adequately review and control modification work. Specifically, the licensee failed to follow FP E MOD 07, "Design Verification and Technical Review," when the review process did not ensure that a 13.8 kV switchgear modification was adequate and maintained all functions of the recirculation system. This led to the failure of plant personnel to land wires necessary to transmit breaker position signals to the recirculation speed control system and, as a result, the site failed to maintain the recirculation function to initiate runbacks in response to a condensate or feedwater pump trip. In addition, the inadequate modification left both recirculation pumps susceptible to spurious runbacks, and resulted in two inadvertent runbacks when operators were lowering flow on each pump. The licensee took action to lock the recirculation scoop tubes to terminate the inadvertent runbacks, initiated complex trouble shooting and a root cause evaluation, and implemented a new modification to restore the recirculation system runback functions that were lost. The finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of design control and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the inadequate modification disabled the recirculation function to initiate runbacks after feed or condensate pump trips, and left both recirculation pumps susceptible to inadvertent runbacks. The inspectors utilized IMC 0609, Appendix A, and determined a detailed risk assessment was required because the finding involved the partial loss of a support system that contributes to the likelihood of, or causes, an initiating event AND affected mitigation equipment. Based on the Detailed Risk Evaluation, the senior reactor analysts determined that the finding was of very low safety significance. The inspectors concluded that this issue was cross cutting in the Human Performance, resources area, because the modification development and review process failed to utilize complete, accurate, and up to date design documentation, procedures, and work packages [H.2(c)].

Inspection Report# : 2013004 *(pdf)*

Significance: G Sep 30, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
LOSS OF ACCURATE LEVEL INDICATION DURING PARTIAL RCS DRAIN DOWN.
A self revealed finding of very low safety significance and non cited violation of Technical Specification (TS) 5.4.1.a, "Procedures," occurred on June 3, 2013, due to the licensee's failure to implement procedures regarding maintenance or operations activities for draining and refilling the reactor vessel. Specifically, the licensee failed to follow Step 10 of Operations Manual B.02.02 05, "Reactor Water Cleanup System Operation," Section G.1, "Reactor Vessel Draining during Cold Shutdown Conditions," to adequately monitor water levels in the reactor during the reactor pressure vessel (RPV) partial draining process. While relying on a temporary installed level instrument, operators performed an RPV drain down which introduced pressure related inaccuracies into the temporary instrument and prevented operators from adequately monitoring vessel level. This resulted in a loss of positive configuration control

of reactor coolant system (RCS) level during an infrequently conducted risk significant evolution, and for four days thereafter. Corrective actions included transferring from the temporary level instrument to the flood up level instrument and enhancing RPV reassembly and temporary vessel installation procedures.
This issue is more than minor because it is associated with the configuration control "shutdown equipment lineup" attribute of the Initiating Events Cornerstone and impacted the cornerstone objective to limit the likelihood of those events that challenge critical safety functions during shutdown operations. In addition, if left uncorrected, the reliance on inaccurate RPV level instrumentation could lead to a more significant safety issue because it constitutes a loss of positive control of reactor vessel level during a risk significant RCS drain down. Using IMC 0609, Appendix G, for shutdown operations, the inspectors determined that the finding had very low safety significance because it did not represent an inadvertent loss of two feet of RCS inventory or inadvertent RCS pressurization, and it did not adversely affect core heat removal, inventory control, power availability, containment control, or reactivity guidelines. The inspectors determined that this finding was cross cutting in the Human Performance, decision making area, and involved aspects associated with using conservative assumptions in decision making and adopting a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe [H.1(b)].
Inspection Report# : 2013004 *(pdf)*

Significance:  Jun 30, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADVERTENT MISPOSITIONING OF INSTRUMENT AIR VALVE AND LOSS OF SPENT FUEL POOL COOLING.
A finding of very low safety significance and an associated non-citied violation was self-revealed for the site's failure to implement the requirements of FP-OP-SC-01, "Status Control," when, on April 23, 2013, a valve in the instrument air system was mispositioned as a result of site personnel's' failure to review high traffic scaffold access points for equipment bump hazards. Specifically, scaffold plan reviewers failed to ensure that components susceptible to inadvertent mispositioning were identified and protected in accordance with FP-OP-SC-01 and TS 5.4.1, "Procedures." As a result, an instrument air valve located near a scaffold ladder was inadvertently bumped, which led to the loss of instrument air to the reactor and turbine buildings, and the loss of the spent fuel pool cooling system, a system being used to provide cooling to the fully offloaded
core in the spent fuel pool. Corrective actions included restoration of instrument air, installation of protective barriers for the affected instrument air valve, and revision of the site scaffold control procedure to ensure scaffold positioning would be reviewed post-construction by operations for bump hazards.

The inspectors determined that the issue was more than minor because it impacted the configuration control "shutdown equipment lineup" attribute of the Initiating Events Cornerstone and affected the cornerstone's objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In addition, it impacted the Barrier Integrity attribute of configuration control to "maintain functionality of the spent fuel pool cooling system" and affected the 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. Using IMC 0609 Appendix G for shutdown operations, the inspectors determined that the finding had very low safety significance because it did not adversely affect core heat removal, inventory control, power availability, containment control, or reactivity guidelines. The inspectors determined that this finding was cross-cutting in the Human Performance, work control area, and involved aspects associated with planning work activities by incorporating risk insights and jobsite conditions [H.3(a)].

Inspection Report# : 2013003 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
SBLC DISCHARGE PRESSURE PROCEDURAL LIMITS EXCEEDED.
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when the licensee failed to accomplish activities affecting quality in accordance with instructions, procedures, or drawings. Specifically, licensee personnel failed to abide by procedural requirements for pump discharge pressure limitations contained in Procedure 0255 02 III, "SBLC Quarterly Pump and Valve Tests," when they imprecisely controlled the 11 standby liquid control (SBLC) flow control valve during the test. This led to the halting of the SBLC test while the equipment condition was evaluated and resulted in the validity of the inservice test (IST) data being brought in to question. The licensee re performed the test for the 11 SBLC pump; stood down the workers involved; increased operational oversight of the test; evaluated the condition of the equipment; performed a human performance event review; and included communication of the error as part of a site wide stand down. This issue was entered into the licensee's corrective action program (CAP 1401816).
The inspectors determined that the licensee's failure to abide by SBLC procedural limitations was a performance deficiency, because it was the result of the failure to meet the requirements of 10 CFR 50, Appendix B, Criterion V; 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 Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because, if left uncorrected, it had the potential to lead to a more significant safety concern. Specifically, if pressure limitations had been further exceeded, the discharge relief valve would have lifted, which could result in inoperability of the 11 SBLC pump until repair or replacement of the relief valve. In addition, inadequately performing the SBLC surveillance and IST testing could have the potential to mask degraded conditions associated with the pump. The inspectors applied IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At Power," to this finding. The inspectors utilized Exhibit 2, Section A, "Mitigating Systems," to screen the finding. The finding was determined to have very low safety significance because the inspectors answered 'No' to all four questions. 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 using human error prevention techniques during performance of work activities [H.4(a)].
Inspection Report# : 2013005 *(pdf)*

Significance: G Nov 22, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Effects of the HPCI Steam Isolation Outboard Valve Closure Time Increase
Green. The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to evaluate the effects of increasing the high pressure coolant injection (HPCI) steam isolation outboard valve allowed closure time from 40 to 50 seconds in several documents. Specifically, the licensee failed to evaluate the effect of the increased allowed closure time for MO-2035 in several analyses. The licensee entered this issue into their Corrective Action Program, where the licensee is reviewing the impact of increasing the allowed closure time for MO 2035 on high energy line break (HELB) calculations and will revise the applicable analyses and documentation as required. A preliminary analysis using actual stroke and delay times for MO-2035 verified the 55 seconds used in the analysis was still bounding.

The performance deficiency was determined to be more than minor because the finding was associated with the

Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding was a design deficiency that did not result in a loss of operability or functionality. This finding has a cross-cutting aspect in the area of Human Performance, Resources because the licensee did not have complete, accurate, and up-to-date design documentation. Specifically, the licensee failed to revise all affected design documentation when the HPCI steam isolation outboard valve allowed closure time was increased from 40 seconds to 50 seconds.
Inspection Report# : 2013007 *(pdf)*

Significance: G Nov 22, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure Required Design Basis Analysis was Maintained
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the failure to verify that required analysis was in-place prior to superseding CA 00 082. Specifically,
the licensee failed to recognize that the superseded calculation contained required analysis that was not verified in other current calculations. The licensee entered this issue into their Corrective Action Program where the licensee performed a preliminary analysis that verified the HPCI HELB was still bounded by the main steam line break analysis and to ensure that the analysis will be restored consistent with the provisions of CA 00 082 and License Amendment 117.

The performance deficiency was determined to be more than minor because the finding was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was a design deficiency that did not result in a loss of operability or functionality. This finding has a cross-cutting aspect in the area of Human Performance, Work Practices because the licensee did not use human error prevention techniques, such as self and peer checking, to ensure that work activities were performed safely. Specifically, the licensee failed to recognize that the superseded calculation contained required analysis that was not verified to be in other current calculations.

Inspection Report# : 2013007 *(pdf)*

Significance: G Nov 22, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Qualification of UV Relay 27 43A
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the failure to maintain seismic qualification of safety-related undervoltage (UV) relay 27-43A, where the UV relay's coil was replaced without proper analysis and documentation. Specifically, the licensee did not ensure there was proper test analysis and documentation in-place that specified the requirements to allow replacement of the UV relay’s coil to maintain its seismic qualification. The licensee entered this finding into their Corrective Action Program to address the cause that lead to this issue. The relay had previously been replaced with a qualified component prior to this inspection.

The performance deficiency was determined to be more than minor because the finding was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding was a design

deficiency that did not result in a loss of operability or functionality. This finding has a cross-cutting aspect in the area of Human Performance, Decision-Making because the licensee did not make safety significant decisions using a systematic process, especially when faced with unexpected plant conditions, to ensure safety is maintained. Specifically, the licensee failed to recognize that to maintain seismic qualification, proper analysis and documentation must be in-place to identify those components that are authorized to be replaced without invalidating the seismic qualification analysis.
Inspection Report# : 2013007 *(pdf)*

Significance: G Nov 22, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
EDG Fuel Oil Supply System Design does Not Meet the Single Failure Criteria
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the emergency diesel generator (EDG) fuel oil system original design met the single failure criteria with respect to having two safety-related pumps that were physically separated and provided with independent piping and safety-related power source. The licensee entered this finding into their Corrective Action Program and implemented actions that included separating the fuel oil system into individual trains for each EDG, providing each pump with safety-related power, and tracking the final resolution of this issue to completion.

The performance deficiency was determined to be more than minor because the finding was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) based on a Detailed Risk-Evaluation performed by the Senior Reactor Analysts. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : 2013007 *(pdf)*

Significance: G Sep 30, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INAPPROPRIATE EMERGENCY SHUTDOWN OF BOTH EDGS DURING A LONOP EVENT.
A self revealed finding of very low safety significance and an associated non cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures,
and Drawings," occurred on June 13, 2013, due to the licensee's failure to accomplish activities affecting quality in accordance with instructions, procedures, or drawings of a type appropriate to the circumstances. Specifically, operators failed to utilize B.09.08 05.E.1/2, "Emergency Diesel Generators [EDGs]—System Operation, 11/12 Emergency Diesel Generator Operation," when verifying proper operation of both EDGs following their auto start during a loss of normal offsite power event. This resulted in an inappropriate emergency shutdown of both EDGs when circumstances did not warrant the action, making them inoperable during an event that could have resulted in the necessity of their use. In addition, this action unnecessarily challenged future reliability of the EDGs due to the bypassing of the normal engine cool down period. The licensee took immediate action to restore the EDGs to operable status once the inappropriate action was identified, performed a site clock reset, and improved training and associated procedures.
The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of human performance and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). In addition, if left uncorrected, the performance deficiency could lead to a more significant safety concern. Specifically, failing to utilize

necessary procedures when verifying proper operation of important safety related equipment during an event, could lead to unnecessary unavailability or inoperability of additional systems. The inspectors utilized IMC 0609, Appendix G, and determined the finding had very low safety significance because it did not adversely affect core heat removal, inventory control, power availability, containment control, or reactivity guidelines. The inspectors concluded that this issue was cross cutting in the Human Performance, resources area, because the licensee failed to make available complete, accurate, and up to date response procedures [H.2(c)].
Inspection Report# : 2013004 *(pdf)*

Significance: Y May 15, 2013
Identified By: NRC
Item Type: VIO Violation
FAILURE TO MAINTAIN AN ADEQUATE FLOOD PLAN CONSISTENT WITH DESIGN REQUIREMENTS.
The inspectors identified a Yellow finding with substantial safety significance and associated violation of Technical Specification 5.4.1 for the licensee's failure to maintain a flood plan to protect the site from external flooding events. Specifically, the site failed to maintain flood Procedure A.6, "Acts of Nature," such that it could support the timely implementation of flood protection activities within the 12 day timeframe credited in the design basis as stated in the updated safety analysis report (USAR.)
The inspectors determined that the licensee's failure to maintain an adequate flood plan consistent with the USAR was a performance deficiency, because it was the result of the failure to meet the requirements of TS 5.4.1.a, "Procedures;" 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 Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, dated September 7, 2012, and determined that the issue was more than minor because it impacted the 'Protection Against External Factors' attribute of the Mitigating Systems Cornerstone and affected the cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, if the necessary flood actions cannot be completed in the time required, much of the station's accident mitigation equipment could be negatively impacted by flood waters.
Therefore, a detailed risk evaluation was performed.
This risk evaluation was performed using IMC 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," dated April 12, 2012. A Significance and Enforcement Review Panel (SERP) determined this finding to have substantial safety significance (Yellow).
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 decision-making components, and involving aspects associated with using conservative assumptions in decision making, verifying the validity of the underlying assumptions, and identifying possible unintended consequences.
Inspection Report# : 2013008 *(pdf)*
Inspection Report# : 2013009 *(pdf)*

Significance: G May 15, 2013
Identified By: NRC
Item Type: FIN Finding
INADEQUATE TI-187 PROCEDURE WALK-THROUGH.

The inspectors identified a finding of very low safety significance for the site's failure to perform adequate procedure walkthroughs to comply with NRC endorsed NEI 12-07, "Guidelines for Performing Walk-downs of Plant Flood Protection Features." Specifically, the licensee failed to perform flooding procedure walk-throughs necessary to verify that flood protection actions were achievable, and could be completed within their credited timeline. As a direct result, the licensee failed to verify that necessary resources for levee construction and other flood protection activities were adequately pre-staged or available to ensure that the site could meet its credited flood mitigation timeline.

The inspectors determined that the licensee's failure to adequately validate that external flood protection actions and timelines were achievable was a performance deficiency, because it was the result of the failure to meet the standards of NEI 12-07; 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 Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, dated September 7, 2012, and determined that the issue was more than minor because, if left uncorrected, failure to adequately validate levee construction and equipment pre-staging timelines has the potential to lead to a more significant safety concern. Specifically, if the site fails to account for the time and effort necessary to acquire flood mitigation resources prior to the flood, and the time and activities necessary to construct the ring levee, the site may not be able to complete their flood protection measures in time to mitigate floods on the design basis scale. The inspectors determined the finding could

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be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. The inspectors answered "No" to all the questions in Section A, "Mitigating SSCs and Functionality," Section C, "Reactivity Control Systems," and Section D, "Fire Brigade." The inspectors answered "No" to the Section B, "External Event Mitigating Systems," question because the finding did not directly involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event (e.g., seismic snubbers, flooding barriers, tornado doors). Therefore, the inspectors determined the finding to be of very low safety significance.

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 decision-making components, and involving aspects associated with using conservative assumptions in decision making, verifying the validity of the underlying assumptions, and identifying possible unintended consequences.

Inspection Report# : 2013008 *(pdf)*

Significance: G Mar 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

14 RHR POWER CABLE INADVERTENTLY CUT.

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 provide adequate work instructions for work on the 12 core spray (CS) pump, to ensure that the correct power cable was cut during cable removal activities. Specifically, the work package did not contain plant drawings or steps requiring use of

positive cable identification tools, and contained cable routing information which did not accurately reflect configuration of the 12 CS motor electrical power cable. This resulted in the field workers relying on informal labeling and the incorrect cable routing information to identify and cut the cable. As a direct result, the work group incorrectly cut the 14 RHR pump power cable, which unintentionally disabled a pump being credited as available in the licensee's shutdown safety risk assessment at the time of the error. Once identified, the licensee took prompt action to stop work on this job and all activities associated with the demolition of cabling 480V and higher. Before resuming work, the licensee developed a list of positive identification tools for cutting cable, and incorporated the use of these tools as requirements into all work packages associated with cutting 480V and higher voltage cables. The licensee also assembled a root cause evaluation team, reset the site human performance clock, and provided site wide communication of the details of the event. This event was entered into the licensee's corrective action program (CAP 01374981).
The inspectors determined that the licensee's failure to adequately identify and cut the correct cable during the 12 CS pump cable removal activity was a performance deficiency, because it was the result of the failure to meet the requirements of 10 CFR 50, Appendix B, Criterion V; 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 Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment and human performance attributes of the Mitigating Systems Cornerstone and affected the cornerstone's objective to
ensure the availability reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). In this instance, the performance deficiency resulted in the unintentional unavailability of the 14 RHR pump and subjected workers to a potentially energized 4160V power source. At the time of the error, 14 RHR was one of the pumps being credited in support of the shutdown safety functions of core heat removal and inventory control. As a result, this finding was evaluated under the Mitigating Systems Cornerstone. Since the plant was shut down and defueled, the inspectors applied NRC IMC 0609, "Significance Determination Process," Appendix G, "Shutdown Operations Significance Determination," Attachment 1, to this finding. The inspectors determined that the finding had very low safety significance because it did not adversely affect core heat removal; inventory control; power availability; containment control; or reactivity guidelines. 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 resources components, and involving aspects associated with having complete, accurate and up-to-date design documentation, procedures, and work packages, and correct labeling of components to assure nuclear safety.
Inspection Report# : 2013002 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW PROCEDURE FOR AO 13022 FURMANITE INJECTION.
The inspectors identified a finding of very low safety significance and a NCV of Technical Specification (TS) 5.4.1 due to the failure to perform safety related maintenance in accordance with documented instructions. Specifically, the improper control of safety related maintenance on reactor core isolation cooling (RCIC) injection check valve AO 13 22 resulted in the injection of seven sticks of a leak sealing compound (e.g. Furmanite) instead of the maximum four called out in Work Order (WO) 486966. This issue was entered into the licensee's corrective action program (CAP 1402240). Corrective actions included a site stand down; down grade of the Furmanite technician's leak repair certification, pending investigation and retraining; revise procedures requiring each Furmanite injection be observed by maintenance supervision; and development of a fleet procedure/process for oversight of supplemental personnel.

The inspectors determined that the failure to perform safety related maintenance in accordance with documented instructions was a performance deficiency requiring evaluation. The inspectors determined the issue was more than minor because, if left uncorrected, the failure to follow leak sealant work instructions could lead to more significant safety concerns. The inspectors assessed the significance of this finding in accordance with Inspection Manual Chapter (IMC) 0609 and determined that it was of very low safety significance. The inspectors concluded that this finding was cross cutting in the Human Performance, work practices area because of the failure to ensure supervisory and management oversight of work activities [H.4(c)].

Inspection Report# : 2013005 *(pdf)*

Significance: G Jun 30, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
SAFETY RELIEF VALVE TAILPIPE SENSING LINE ISOLATION VALVE FOUND CLOSED.
A finding of very low safety significance and non-cited violation of Technical Specification (TS) 3.3.6.3, "Low-Low Set (LLS) Instrumentation," was self-revealed when the licensee discovered during the performance of an unrelated surveillance test that an isolation valve, which impacts the operation of two differential pressure switches, associated with the 'E' LLS safety relief valve (SRV) was found closed. Specifically, valve MS-44-2B, the root valve for the 'E' SRV tailpipe pressure sensing line was discovered closed between June 28, 2011 and April 12, 2013. The licensee took corrective actions to restore MS-44-2B to its required open position. Additional corrective actions included plans to revise a standing SRV maintenance procedure which provided incorrect restoration guidance, post-maintenance, for four of the eight SRVs.

The inspectors determined that this issue was more than minor because it impacted the configuration control attribute of the Barrier Integrity Cornerstone and affected the 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, Appendix A to this finding and evaluated the issue under the Barrier Integrity Cornerstone, utilizing Exhibit 3, "Barrier Integrity Screening Questions," to screen the finding. The inspectors answered "No" to both Reactor Containment screening questions, and determined the finding to be of very low safety significance. The inspectors determined that this finding was cross-cutting in the Human Performance, resources area, and involved aspects associated with having complete, accurate and up-to-date design documentation, procedures, and work packages, and correct labeling of components to assure nuclear safety [H.2(c)].

Inspection Report# : 2013003 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: FIN Finding
FAILURE TO MAINTAIN RADIATION EXPOSURE ALARA DURING RFO 26.

A finding of very low safety significance was self revealed due to the licensee having unplanned and unintended occupational collective radiation dose because of deficiencies in the licensee's radiological work planning and work control program. Specifically, the licensee failed to properly incorporate as low as reasonably achievable (ALARA) strategies and insights while planning and executing two work activities during the refueling outage (RFO) 26. The first was the inservice inspection (ISI) examinations performed in the drywell. The initial dose estimate for this activity was 7.500 person rem. However, 13.173 actual person rem of dose was received. The second activity was associated with drywell snubber inspection activities within the drywell. The initial estimate for this activity was 3.600 person rem. However, 7.243 actual person rem of dose was received. These results were caused by poor radiological planning and work execution of these tasks. The licensee entered this issue into their CAP as Action Reports 1404210 and 1404244.
The finding was more than minor because it was associated with the program and process attribute of the Occupation Radiation Safety Cornerstone. Additionally, this issue affected the cornerstone objective of ensuring the adequate protection of the workers' health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Additionally, the finding is very similar to Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," Example 6.i. This example provides guidance that an issue is not minor if the actual collective dose exceeded 5 person rem and exceeded the planned, intended dose by more than 50 percent. The inspectors determined that this finding was of very low safety significance because Monticello Nuclear Generating Plant's current 3 year rolling average collective is 110.633 person rem (2010 2012). This is less than the 240 person rem/unit referenced within IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." This finding had a cross cutting aspect in the area of Human Performance, related to the cross cutting aspect of work control, in that the outage plan did not adequately incorporate action to address the impact of work on different job activities [H.3(b)].

Inspection Report# : 2013005 *(pdf)*

Public Radiation Safety

Significance:  Sep 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO MAINTAIN THE ODCM.
A NRC identified finding of very low safety significance and an associated non cited violation of Technical Specification (TS) 5.5.1.a for the failure to perform an adequate technical review which led to the Offsite Dose Calculation Manual (ODCM) not being kept current. This issue was entered into the licensee's corrective action program as AR 01397500. The licensee is currently evaluating changes to the ODCM.
The performance deficiency was determined to be of more than minor safety significance in accordance with IMC 0612, Appendix B, "Issue Screening," because it was associated with the program and process attribute of the Public Radiation Safety Cornerstone and the performance deficiency adversely affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. Specifically, the failure to maintain the ODCM current adversely impacted the licensee's ability to precisely determine offsite radiation dose under certain conditions. In accordance with IMC 0609, Appendix D, "Public Radiation Safety Significance Determination Process," the inspectors determined that the finding had a very low safety significance (Green) because the finding was related to the Effluent Release Program but did not involve: (1) a failure to implement an effluent program; or (2) result in public dose exceeding a limit in 10 CFR 50 Appendix I or 10 CFR 20.1301(e). The inspectors identified that the primary cause of this finding was related to the cross cutting aspect of human performance with the component of resources. Specifically, the licensee did not ensure the ODCM (a procedure required by TSs) was up to date [H.2(c)]

Inspection Report# : 2013004 *(pdf)*

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ENTER RADIONUCLIDE ON RADIOACTIVE WASTE SHIPMENT DOCUMENTATION.
The inspectors identified a finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR 71.5 for the failure to correctly complete radioactive waste shipping documents for radioactive shipments containing condensate resins. The shipment documentation failed to include the radionuclide Am-241, which was present within the shipment. This issue was entered into the licensee's corrective action program (CAP) as AR 01369367. The licensee is improving the supervisory approval mechanism for radioactive shipment documentation to ensure shipping papers are adequately completed.
The performance deficiency was determined to be of more than minor safety significance in accordance with Inspection Manual chapter (IMC) 0612, Appendix B, "Issue Screening," because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, incorrect shipment documentation could lead to incorrect Department of Transportation (DOT) and NRC transport classifications or incorrect waste classifications in accordance with 10 CFR 61. The inspectors also reviewed the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," and did not find any similar examples. In accordance with IMC 0609, Appendix D, "Public Radiation Safety Significance Determination Process," the inspectors determined that the finding had very low safety significance (Green) because the finding did not involve: (1) radiation levels exceeded, (2) a breach of package during transit, (3) a certificate of compliance issue, (4) a low-level burial ground nonconformance, (5) or the failure to make notifications or provide emergency information. The primary cause of this finding was related to the cross-cutting aspect of human performance with the component of work practices. The licensee ensures supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.
Inspection Report# : 2013002 *(pdf)*

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

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