

## Monticello

### 2Q/2015 Plant Inspection Findings

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#### Initiating Events

**Significance:** G Jun 30, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

**INADEQUATE CLEARANCE ORDER RESULTS IN UNPLANNED OPDRV.**

A self revealed finding of very low safety significance and an associated NCV of Technical Specification (TS) 5.4.1, "Procedures," was identified on May 16, 2015, when the licensee failed to implement procedure FP OP TAG 01, "Fleet Tagging," for equipment control activities associated with the Scram Discharge Volume (SDV). Specifically, the licensee failed to ensure that clearance order checklist 58972 03 restored valve I CRD R 26, an SDV instrument vent valve, to its normal position prior to returning the SDV system to service. As a result, during subsequent reactor coolant system (RCS) pressure boundary testing, RCS water leaked out onto the reactor building floor through the open vent line, creating an unplanned operation with a potential for draining the reactor vessel (OPDRV). This issue was entered into the licensee's corrective action program (CAP 1479307). Immediate corrective actions included termination of the leakage by closing and capping the SDV vent line and resetting the scram. The site initiated an apparent cause evaluation (ACE), which was in progress at the end of the inspection period.

The inspectors determined that the failure to adequately restore the SDV system to service in accordance with fleet tagging requirements was a performance deficiency requiring evaluation. The inspectors determined that the finding was more than minor in accordance with IMC 0612, Appendix B, because it adversely impacted the Initiating Events Cornerstone attributes of Configuration Control and Procedure Quality, 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. The inspectors evaluated the finding using IMC 0609, Attachment 4, Phase 1 – Initial Screening and Characterization of Findings, which required an analysis using IMC 0609 Appendix G, the Shutdown Operations significance determination process (SDP) since the reactor was in Mode 4 (cold shutdown). The finding was assessed in accordance with IMC 0609 Appendix G, Attachment 1, Exhibit 2 for Initiating Events. Using IMC 0609 Appendix G, Attachment 3, for a Phase 2 analysis, the inspectors determined it to have very low safety significance. The inspectors concluded that this finding was cross cutting in the Human Performance, Challenge the Unknown aspect because of the failure of individuals to stop when faced with uncertain conditions, and the failure to ensure that risks are evaluated and managed before proceeding [H.11].

Inspection Report# : [2015002](#) (*pdf*)

**Significance:** G Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**LOSS OF ELECTRICAL BUSES AND SHUTDOWN COOLING (SDC) DUE TO INADEQUATE PROCEDURE ADHERENCE.**

A self revealed finding of very low safety significance and an associated NCV of Title 10, Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified due to the failure to properly implement Procedure 0304 01, "Safeguard Bus Loss of Voltage Protection Relay Unit Calibration – Safeguards Bus No. 15." Specifically, electrical maintenance workers failed to comply with Step 20

which directed the installation of a jumper between terminals ZX10 and ZX11 in an electrical panel, when they incorrectly installed the electrical jumper between terminals ZX11 and ZX12. This resulted in the loss of the Division I safety related 4160 Volts AC (Vac), 480 Vac, and 125 Volts DC (Vdc) electrical buses, which subsequently led to the loss of shutdown cooling for approximately 3 hours and 15 minutes. Initial corrective actions for this issue included immediately invoking strict plant status controls to focus efforts on recovery, restoring the electrical buses and shutdown cooling to operation, and reinforcing risk recognition and human performance tools. This issue was entered into the licensee's corrective action program (CAP 1477351) and a root cause evaluation was in progress at the time this inspection period concluded.

The inspectors determined that the issue was more than minor because it adversely impacted the Initiating Events Cornerstone attribute of Human Performance and Configuration 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. The inspectors utilized IMC 0609, Appendix G for shutdown operations and determined that the issue was 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, Avoid Complacency aspect because of the failure of licensee individuals to implement error reduction tools and the failure of the organization to plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes [H.12].

Inspection Report# : [2015002](#) (pdf)

**Significance:** G Mar 31, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

**FAILURE TO MAINTAIN FIRE PROTECTION PROGRAM PROCEDURES FOR CONTROL OF PORTABLE HEATER/EXTENSION CORD FIRE HAZARDS.**

A finding of very low safety significance and an associated NCV of Technical Specification (TS) 5.4.1.d was self-revealed when the licensee failed to maintain procedures for Fire Protection Program Implementation to ensure that ignition sources (space heaters) were properly controlled to prevent plant fires. Specifically, on January 26, 2015, the licensee failed to maintain Fire Protection Program implementation procedures to include controls to ensure space heaters used in the plant stayed within allowable load ratings and were plugged directly into outlets without the use of extension cords. This resulted in a fire in the plant recombiner building which was extinguished within 13 minutes, nearing the 15 minute time limit at which a Notification of Unusual Event (NOUE) would have needed to be declared. It also resulted in a space heater causing an overloaded outlet at a location in the reactor building, near 'A' residual heat removal (RHR) equipment. Upon discovery of the recombiner area fire, the licensee dispatched the fire brigade to ensure the fire was extinguished, performed extent of condition walkdowns in the plant, and took action to improve controls on extension cord and portable heater use in the power block. This issue was entered into the licensee's corrective action program (CAP 1463506).

The inspectors determined that the failure to maintain fire program procedures to ensure ignition sources (space heaters) were appropriately controlled was a performance deficiency requiring evaluation. The inspectors determined the issue was more than minor because, if left uncorrected, the failure to adequately control portable heater related fire hazards in the plant could lead to more significant safety concerns. In addition, the finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of Protection Against External Factors—including fire, 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. The inspectors assessed the significance of this finding in accordance with IMC 0609 and determined that it was 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 Problem Identification and Resolution, Evaluation aspect because of the failure to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance [P.2].

Inspection Report# : [2015001](#) (pdf)

## Mitigating Systems

**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO MAINTAIN PORTABLE FIRE EXTINGUISHERS IN ACCORDANCE WITH FIRE STRATEGY.**

The inspectors identified a finding of very low safety significance and an NCV of TS 5.4.1.d when the licensee failed to implement procedures associated with Fire Protection Program Implementation to ensure that portable fire extinguishers were maintained in accordance with the fire strategy. Specifically, on May 1, 2015, the licensee failed to implement fire protection plan procedures when they failed to control three portable fire extinguishers in the condenser room, a room housing safe shutdown cabling, in accordance with Fire Strategy A.3 12 C. In this case, inspectors found that of the four dry chemical extinguishers required to be stationed in the condenser room, two indicated that they were partially depleted and needed to be recharged, and a third extinguisher was missing entirely. Immediate corrective actions included recharging the partially depleted extinguishers and procuring a portable extinguisher to replace the missing one. This issue was entered into the licensee's corrective action program (CAP 1477246).

The inspectors determined that the failure to implement the fire strategy procedure to ensure that condenser room portable fire extinguishers were maintained was a performance deficiency requiring evaluation. The inspectors determined the issue was more than minor in accordance with IMC 0612 Appendix B because it was associated with the Mitigating Systems Cornerstone attribute of Protection Against External Factors—including fire, 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). Because the plant was shut down, the inspectors assessed the significance of this finding in accordance with IMC 0609, Appendix G, the Shutdown Operations SDP, and determined that it had 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 Problem Identification and Resolution, Identification aspect because of the failure to implement a corrective action program with a low threshold for identifying issues, and failure to ensure that individuals identify issues completely, accurately, and in a timely manner in accordance with the program [P.1].

Inspection Report# : [2015002](#) (pdf)**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO MEASURE INTERPASS TEMPERATURE.**

The inspectors identified a Green NCV of Title 10, CFR Part 50, Appendix B, Criterion IX, "Control of Special Processes," for a failure to measure the interpass temperature while performing welding on diesel generator fuel oil modification supports. Consequently, welding was performed without the Code and Procedure required interpass temperature being monitored on a number of welds, a parameter which can affect the mechanical properties of the material being welded. To restore compliance, the welder proceeded to measure the interpass temperatures on the balance of the welds and verified that the interpass temperature did not exceed that allowed by procedure. The licensee entered this issue into its corrective action program (CAP 1475767).

The inspectors determined that this issue was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because the inspectors answered "yes" to the more than minor question, "If left uncorrected, would the performance deficiency have the potential to lead to a more significant safety concern?" Specifically, absent NRC intervention, the welder would have completed all of the welds without having measured the interpass temperature, a welding parameter which can affect the mechanical properties (e.g., impact properties) of some materials being welded, and if left uncorrected could lead to a potential failure of the weld in service. In accordance with Table 2, "Cornerstones Affected by Degraded Condition or Programmatic Weakness," of IMC 0609, Attachment 4, "Initial Characterization of Findings," issued June 19, 2012, the inspectors checked the box under the Mitigating Systems Cornerstone because leakage on the Emergency Diesel Generator (EDG) fuel oil system could cause core decay heat removal to be degraded. The inspectors determined this finding was of very low safety significance (Green) based on answering "yes" to the question in Part A of Exhibit 2, "Mitigating Systems Screening Questions," in IMC 0609, Appendix A, "The Significance Determination Process for Findings At Power," issued on June 19, 2012. Specifically, the inspectors answered "yes" to the screening question "If the finding is a deficiency affecting the design or qualification of a mitigating System, Structure, or Component (SSC), does the SSC maintain its operability or functionality"? The welder proceeded to measure the interpass temperatures on the balance of the welds and verified that the interpass temperature did not exceed that allowed by procedure, and the issue did not result in the actual loss of the operability or functionality of a safety system. The inspectors determined that the primary cause of the failure to monitor the interpass temperature procedure was related to the cross cutting component of Problem Identification and Resolution, Operating Experience (P.5). Specifically, the organization failed to effectively implement external operating experience in a timely manner. Inspection Report# : [2015002](#) (*pdf*)

**Significance:**  Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO IDENTIFY HIGH PRESSURE COOLANT INJECTION (HPCI) SEISMIC SUPPORT NONCONFORMANCE.**

The inspectors identified a finding of very low safety significance and an NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify conditions adverse to quality, such as deficiencies, deviations, and nonconformances. Specifically, on February 11, 2015, the inspectors identified a safety related seismic support for high pressure coolant injection (HPCI) turbine trip instrumentation that was not rigidly attached, supported, and restrained in accordance with plant construction code and installation specifications, a nonconformance which the licensee had failed to identify since initial plant construction. Corrective actions for this issue included repairs to the seismic support to rigidly connect the instrument line restraint and installation of a standalone support for the instrument tray. This issue was entered into the licensee's corrective action program (CAP 1465906).

The inspectors determined that the failure to promptly identify an HPCI instrument line support nonconformance was a performance deficiency requiring evaluation. The inspectors determined that the issue was more than minor because it adversely impacted the Mitigating Systems Cornerstone attribute of Protection Against External Factors, 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). The inspectors assessed the significance of this finding in accordance with IMC 0609 and determined that it was 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 Problem Identification and Resolution, and the aspect of Identification because the licensee failed to implement a CAP with a low threshold for identifying issues [P.1].

Inspection Report# : [2015001](#) (*pdf*)

**Significance:**  Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**TWO EMERGENCY DIESELS INOPERABLE DUE TO HUMAN ERROR.**

A self-revealing finding of very low safety significance and an NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” was identified on December 28, 2014, due to the failure to properly implement Procedure 0187-02B, “12 Emergency Diesel Generator /12 ESW [Emergency Service Water] Monthly Pump and Valve Tests.” Specifically, operations personnel failed to comply with Step 42 which directed the 12 EDG local governor control switch to be lowered to idle setting. The failure to implement the actions directed by Step 42 resulted in the 11 EDG being inoperable. Corrective actions for this issue included procedure revisions to require: protection/flagging of redundant equipment when technical specification equipment is declared inoperable for any reason, including planned maintenance and surveillance; peer checking or concurrent verification for manipulation of operable technical specification related equipment; and all equipment manipulations require a hard match (between procedure and equipment labeling). This issue was entered into the licensee’s corrective action program (CAP 1460675).

The issue was more than minor because if left uncorrected, the failure to properly implement procedures associated with safety-related equipment would have the potential to lead to a more significant safety concern. Specifically, the failure to follow procedure resulted in the 11 EDG being made inoperable coincident with the 12 EDG being inoperable. The inspectors utilized IMC 0609 and determined that the issue was 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, Avoid Complacency aspect because of a failure of individuals to implement error reduction tools [H.12].

Inspection Report# : [2015001](#) (pdf)

**Significance:**  Dec 02, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO MAINTAIN PROCEDURES TO ENSURE DESIGN REQUIREMENTS WOULD BE MET DURING CONSTRUCTION OF THE EXTERNAL FLOODING PROTECTION LEVEE.**

The inspectors identified a finding of very low safety significance with an associated NCV of Technical Specification 5.4.1.a for the licensee’s failure to maintain adequate procedures to protect the plant from external flooding events. Specifically, the licensee failed to maintain Procedure 8300-02, “External Flooding Protection Implementation to Support A.6 Acts of Nature,” in that it lacked sufficient instructions to ensure testing of materials necessary to its external flooding mitigation plan were adequately controlled. The licensee entered this violation into its corrective action program (CAP) to evaluate changes to its procedures to correct the problem.

The finding was of more than minor significance because it was associated with the Protection Against External Factors and Procedure Quality attributes and adversely affected the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the instructions for constructing the flood control levee lacked specific details on how the licensee would ensure it was constructed, compacted, and tested to at least 90 percent compaction. The finding was a licensee performance deficiency of very low safety significance because it did not involve a 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). This determination was based on reasonable assurance the licensee could construct and compact the levee to at least 90 percent compaction. The inspectors determined this finding affected the cross-cutting area of human performance and the work management aspect due to the licensee’s failure to implement a process of planning, controlling, and executing work activities such that safety is the overriding priority. Specifically, the licensee’s process for developing and validating the work instructions for construction of the levee did not ensure appropriate quality control steps were incorporated for critical design attributes.

Inspection Report# : [2014009](#) (pdf)

**Significance:**  Dec 02, 2014

Identified By: NRC

Item Type: FIN Finding

**SAFETY/SECURITY INTERFACE ASSESSMENT FAILURE.**

The inspectors identified a finding of very low security significance for the licensee's failure to adequately assess and manage the potential for adverse effects on safety and security associated with the development and planned implementation of its external flooding mitigation plan. Specifically, 10 CFR 73.58(b)(3)(i) requires the licensee to have the capabilities to detect, assess, interdict and neutralize threats up to and including the design basis threat of radiological sabotage at all times. The failure to adequately review and evaluate the security measures and changes that would be implemented in response to a flooding event would have resulted in the requirements of 10 CFR 73.58 (b)(3)(i) not being adequately maintained. This finding is not a violation of the regulatory requirements since the licensee had not actually implemented the changes that could have adversely impacted the site's security equipment, systems, and protective measures. The licensee entered the issue into its CAP to perform and document the assessments required to manage the planned changes, and to evaluate and develop potential corrective actions.

The finding was of more than minor significance because it adversely affected the Security Cornerstone objective to provide high assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. Specifically, the licensee failed to assess and manage changes to security equipment, systems, and protective measures that would be required in the event of the implementation of its external flooding mitigation plan to determine whether these changes could adversely impact its ability to implement the site's protective plan, which could potentially lead to a loss of defense-in-depth. The finding was of very low security significance because the total point value of this performance issue was determined to be one (1) when it was screened using the guidance provided in IMC 0609, "Significance Determination Process," Appendix E, Part 1, "Baseline Security Significance Determination Process (SDP) for Power Reactors," dated January 15, 2014. The inspectors determined this finding affected the cross-cutting area of human performance with a cross-cutting aspect of change management due to the licensee's failure to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, the licensee did not provide validation of the security plan by conducting integrated tabletops and reviews and perform additional assessment based on feedback from its external reviewers to determine whether these changes could adversely impact its ability to implement the site's protective plan.

Inspection Report# : [2014009](#) (*pdf*)

## Barrier Integrity

**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO MAINTAIN SECONDARY CONTAINMENT AND STANDBY GAS TREATMENT SYSTEM OPERABLE DURING OPDRV ACTIVITIES.**

The inspectors identified a finding of very low safety significance and an associated NCV of TS 3.6.4.1, Secondary Containment and TS 3.6.4.3, Standby Gas Treatment System (SBGT) because the licensee did not maintain secondary containment and the standby gas treatment system operable as required during activities considered OPDRVs. Specifically, on April 14, and again on May 13, 2015 the licensee failed to classify activities associated with draining reactor inventory as OPDRVs while relying on an automatic isolation function for the drain path, and as a result failed to maintain required equipment operable during these activities. Once questioned by the inspectors, the licensee took action to control other outage related draining activities as OPDRVs and placed this issue into its corrective action

program (CAP 1479284).

The inspectors determined that the failure to maintain secondary containment and SBT operable while an OPDRV was in progress was a performance deficiency. The performance deficiency was more than minor because it was associated with the configuration control attribute of the Barrier Integrity Cornerstone, and adversely affected the cornerstone 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 because the secondary containment boundary and the SBT were not maintained operable during an OPDRV activity. The inspectors evaluated the finding using IMC 0609, Attachment 4, Phase 1 – Initial Screening and Characterization of Findings, which required an analysis using IMC 0609 Appendix G, the Shutdown Operations SDP since the reactor was shut down. The finding was assessed in accordance with IMC 0609 Appendix G, Attachment 1, Exhibit 4 and Appendix H for containment integrity findings. Using Appendix H, the inspectors concluded the finding had very low safety significance (Green) because decay heat was low and containment was deinerted. 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, Documentation aspect because of the failure of the licensee to create and maintain complete, accurate and up to date documentation [H.7].

Inspection Report# : [2015002](#) (*pdf*)

**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO FILL THE REACTOR CAVITY IN ACCORDANCE WITH REFUELING PREPARATION PROCEDURE.**

The inspectors identified a finding of very low safety significance and an associated NCV of TS 5.4.1, “Procedures,” on April 15, 2015, when the licensee failed to implement procedure 9001, “Reactor Well & Dryer Separator Storage Pool Filling Procedure,” for refueling preparation activities. Specifically, when faced with indications that the condensate storage tanks did not contain enough water inventory to complete outage critical path reactor pressure vessel (RPV) flooding activities, the licensee failed to implement 9001 procedure steps for using prescribed equipment and methods to fill the reactor cavity. With the proceduralized methods unavailable, operators used the site decision making process to utilize demineralizer water hoses to fill the cavity rather than processing required 9001 procedure changes. This issue was entered into the licensee’s corrective action program (CAP 1474891). Immediate corrective actions included action to initiate the procedure change process for 9001 and department communication to Operations regarding the incident, emphasizing that the decision making process is not a substitute for the procedure change process.

The inspectors determined that the failure to fill the reactor cavity in accordance with the 9001 reactor well filling procedure was a performance deficiency requiring evaluation. The inspectors evaluated IMC 0612, Appendix E, and did not find any similar examples of minor issues. The inspectors determined that the finding was more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. Specifically, the operations crew’s use of the decision making process to support outage critical path by bypassing proceduralized steps and performing activities using methods contrary to the procedure could lead to a more significant safety concern. In addition, if performed incorrectly (i.e. without flushing the hoses prior to use), the use of demineralizer hoses could introduce foreign material into the core and challenge the integrity of the fuel cladding barrier. The inspectors evaluated the finding using IMC 0609, Attachment 4, Phase 1 – Initial Screening and Characterization of Findings, which required an analysis using IMC 0609 Appendix G, the Shutdown Operations SDP since the reactor was in Mode 5 (refueling). The finding was assessed in accordance with IMC 0609 Appendix G, Attachment 1, Exhibit 4 for Barrier Integrity and determined to have very low safety significance.

The inspectors concluded that this finding was cross cutting in the Human Performance, Conservative Bias aspect because of the failure of the individuals to use decision making practices that emphasize prudent choices over those that are simply allowable, and the failure to ensure that proposed actions are determined to be safe in order to proceed,

rather than unsafe in order to stop. [H.14]

Inspection Report# : [2015002](#) (*pdf*)

**Significance:**  Dec 31, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO COMPLY WITH ASME CODE AND MAINTAIN CONFIGURATION APPROVED BY IST RELIEF REQUEST.**

The inspectors identified a finding of very low safety significance and NCV of 10 CFR 50.55a(f)(4) for the licensee's failure to test main steam line drain containment isolation valves MO-2373 and MO-2374 in accordance with the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) code requirements or maintain the valves in the alternative configuration specified in an NRC-approved Relief Request (VRR-05). Specifically, on October 17, 2014, the NRC identified that the licensee had failed to maintain the approved alternative configuration which had been accepted by the NRC in lieu of the required quarterly stroke testing of MO-2373 and MO-2374. Corrective actions for this event included immediate restoration of the NRC-approved configuration specified in the relief request, cancellation of the noncompliant procedure temporary revisions, and cancellation of the associated 10 CFR50.59 screening. The licensee also initiated an apparent cause evaluation, which was in progress at the end of this inspection period.

The inspectors determined that the failure to test MO-2373 and MO-2374 in accordance with the ASME OM code or maintain the relief request approved plant configuration was a performance deficiency. The inspectors evaluated the issue and determined that the finding was more than minor in accordance with IMC 0612, Appendix B, because it adversely impacted the Barrier Integrity Cornerstone attributes of Design Control and Configuration Control, and affected the cornerstone objective to provide reasonable assurance that physical design barriers, including containment, protect the public from radionuclide releases caused by accidents or events. The inspectors assessed the significance of this finding in accordance with IMC 0609, and determined that this finding was of very low safety significance because it did not represent an actual open pathway in the physical integrity of reactor containment, and did not involve an actual reduction in function of hydrogen igniters in the reactor containment. The inspectors concluded that this finding was cross-cutting in the Human Performance Decision making aspect because of the failure to use a consistent, systematic approach to make decisions and a failure to ensure that risk insights are incorporated as appropriate.

Inspection Report# : [2014005](#) (*pdf*)

**Significance:**  Sep 30, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

**FAILURE TO FOLLOW REACTIVITY MANAGEMENT PROCEDURE.**

A finding of very low safety significance and a NCV of Technical Specification (TS) 5.4.1, "Procedures," was self-revealed when the licensee failed to implement requirements specified in FP-OP-RM-01, "Reactivity Management Program." Specifically, the licensee failed to ensure that the licensed operators were aware of the consequences of the reactivity changes they were making, as required by FP-OP-RM-01. As a result, the licensed operators were unaware that their actions to increase recirculation flow would result in the plant exceeding the minimum critical power ratio (MCPR) operating limit. This issue was entered into the licensee's corrective action program (CAP) 1446848. Immediate corrective actions included restoration of the plant to within the MCPR operating limit, halting of power changes, disqualification of individuals directly involved, increased management oversight, a detailed review of the reactivity plan and procedures planned for use during the reactivity plan, and site-wide communication of the event. The site initiated a root cause evaluation (RCE), which was

in progress at the end of the inspection period.

The inspectors determined that the failure to perform reactivity manipulations in accordance with reactivity management requirements was a performance deficiency requiring evaluation. The inspectors determined that the finding was more than minor in accordance with IMC 0612, Appendix B, because it adversely impacted the Barrier Integrity Cornerstone attributes of Configuration Control and Procedure Quality, and affected the cornerstone objective to provide reasonable assurance that physical design barriers, including fuel cladding, protect the public from radionuclide releases caused by accidents or events. The inspectors assessed the significance of this finding in accordance with IMC 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria" and determined this finding was of very low safety significance. The inspectors concluded that this finding was cross-cutting in the Human Performance, Documentation aspect because of the failure to ensure that the procedures being used to make the reactivity manipulations were complete, accurate, and up-to-date.

Inspection Report# : [2014004](#) (pdf)

## Emergency Preparedness

**Significance:** 6 Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **FAILURE TO MAINTAIN A STANDARD EMERGENCY ACTION LEVEL SCHEME FOR FLOODING.**

The inspectors identified a finding of very low safety significance and an NCV of Title 10 CFR 50.54(q)(2) and 10 CFR 50.47(b)(4) for the licensee's failure to maintain the effectiveness of the emergency plan. Specifically, from May 28, 2014, until February 26, 2015, the HA1.6 Emergency Action Level (EAL) threshold was in conflict with the EAL basis for the alert classification. Additionally, both the revised EAL threshold and original NRC-approved safety evaluation report EAL threshold were later found to be greater than the actual river level that could lead to damage of safe shutdown equipment. The licensee's corrective actions documented that the current river level was 906' and if flooding were to occur the licensee would have relied on Procedure A.6, "Acts of Nature," and that an event response team would have been formed to monitor river level during the duration of a flood event. The licensee concluded that the shift manager, Event Response team, and plant management would have monitored for indication of degraded performance of equipment or structures necessary for safe shutdown for event classification escalation to the Alert level. The licensee entered this issue into the Corrective Action Program (CAP 1454593).

The inspectors determined that establishing a flooding EAL threshold that was in conflict with approved EAL basis as required by 10 CFR 50.47(b)(4), and subsequent failure to determine the actual level that could lead to damage of safe shutdown equipment for the alert classification High River Level EAL HA1.6 was a performance deficiency. The inspectors determined that the issue was more than minor because it is associated with the Procedure Quality attribute of the Emergency Preparedness (EP) cornerstone and adversely affected the cornerstone objective to ensure the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The inspectors assessed the significance of this finding in accordance with IMC 0609 and determined that it was 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 Problem Identification and Resolution, Evaluation aspect because the licensee did not thoroughly evaluate the identified engineering error issue to ensure that resolutions address causes and extent of conditions commensurate with their safety significance [P.2].

Inspection Report# : [2015001](#) (pdf)

## Occupational Radiation Safety

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## Public Radiation Safety

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## 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.

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## Miscellaneous

Last modified : September 30, 2015