

## Prairie Island 1 4Q/2015 Plant Inspection Findings

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### Initiating Events

**Significance:**  Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

#### **FAILURE TO FOLLOW FOREIGN MATERIAL EXCLUSION PROCEDURE DURING REACTOR COOLANT PUMP SEAL REPLACEMENT.**

A self-revealing finding of very low safety significance and associated NCV of TS 5.4.1 was identified on December 19, 2014, due to the licensee's failure to follow Procedure FP-MA-FME-01, "Foreign Material Exclusion and Control." Specifically, workers failed to implement and adhere to the foreign material exclusion (FME) control requirements for a Level 1 foreign material exclusion area when replacing the Unit 1 reactor coolant pump (RCP) seals and associated piping during Refueling Outage 1R29. The failure to implement and adhere to the FME control requirements resulted in introducing foreign material into the reactor coolant system and the subsequent degradation of the #12 RCP seal in December 2014 and January 2015. The seal degradation led to two Unit 1 reactor shutdowns. Corrective actions for this issue included replacing the RCP seal, flushing the seal piping and establishing a process to review work document quality to ensure that appropriate programmatic requirements were included.

The inspectors determined that the failure to follow Procedure FP-MA-FME-01 was more than minor because it was associated with the equipment performance attribute of the Initiating Events cornerstone and impacted the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors utilized Attachment 0609.04, "Initial Characterization of Findings," and determined that this issue was of very low safety significance because each question provided in IMC 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," was answered "No." The inspectors concluded that this finding was cross-cutting in the Human Performance, Work Management area, because the organization failed to implement a process of planning, controlling, and executing work activities such that nuclear safety was the overriding priority. In addition, the work process failed to include the identification and management of risk commensurate to the work and the need for coordination with different groups or job activities.

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

**Significance:**  Mar 31, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

#### **UNTIMELY RESOLUTION OF ENVIRONMENTAL QUALIFICATION ISSUES.**

A self-revealing finding of very low safety-significance and a non-cited violation of 10 CFR 50.49 was identified on March 5, 2015, for the licensee's failure to keep environmental qualification (EQ) files current and the failure to replace or refurbish EQ electrical equipment at the end of its designated life. Specifically, the licensee initiated CAP 1431268 in May 2014 to document numerous EQ file errors identified during an in-depth review of the EQ program. These file errors resulted in the EQ designated life for multiple safety-related solenoid valves being non-conservative such that some solenoids were installed beyond their designated life. Corrective actions included taking action to revise the incorrect EQ files and replacing the safety-related solenoids

installed beyond their designated life.

The inspectors determined that this issue was more than minor because if left uncorrected the failure to maintain the EQ files and to replace or refurbish EQ equipment could result in a more significant safety concern. Specifically, the inaccurate files could result in EQ equipment not being refurbished or replaced as required. In addition, the failure to replace or refurbish EQ equipment installed beyond its designated life could result in equipment failure during normal operation or post-accident conditions. The inspectors utilized IMC 0609, Attachment 0609.04, "Initial Characterization of Findings," and determined this issue was of very low safety significance because each of the questions provided in IMC 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," was answered "No." The inspectors concluded that this issue was cross cutting in the Problem Identification and Resolution, Evaluation area because the licensee had not thoroughly evaluated CAP 1431268 to ensure that the resolution addressed the causes and extent of condition commensurate with the safety significance.

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

## Mitigating Systems

**Significance:**  Nov 24, 2015

Identified By: NRC

Item Type: VIO Violation

### **Failure to Correct an NCV Associated with Inadequate Gas Monitoring of Inaccessible RHR Gas Susceptible Locations (Section 40A2.1.c(1))**

Green. The inspectors identified a finding of very low safety significance (Green), and an associated cited violation of Title 10, Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the failure to correct a condition adverse to quality (CAQ). Specifically, on August 1, 2011, the NRC issued an NCV for the failure to monitor five safety-related gas susceptible locations considered to be inaccessible, which is a CAQ. As of November 24, 2015, the licensee had not corrected this CAQ for two of those locations and did not have plans to restore compliance. The licensee captured this issue into their Corrective Action Program (CAP) with a proposed corrective action to develop an alternative monitoring method for these locations when the unit is operating.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance, 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 of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee was able to access and inspect these locations during the refueling outage that was ongoing when this issue was identified and confirmed that they were full of water during the previous operating cycle. In addition, a historical review did not find information that challenged operability due to gas accumulation at these locations. The inspectors determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because the licensee did not thoroughly evaluate their discovery that the CAQ was not been corrected on July 29, 2013. Specifically, on 2013, the licensee initiated a condition evaluation (CE) to determine if the action plan at the time addressed the NCV associated with the CAQ. However, the CE was closed by crediting actions that were similar to those that resulted in the NCV and other documented observations associated with the inappropriate resolution of the issue. [P.2] (Section 40A2.1.c(1))

Inspection Report# : [2015008](#) (*pdf*)

**Significance:**  Nov 24, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Manage Gas Accumulation at the RHR Train Credited for Emergency Core Cooling in MODE 4 (Section 40A2.1.c(2))**

Green. The inspectors identified a finding of very low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to manage gas accumulation at the residual heat removal (RHR) train credited for emergency core cooling in MODE 4, "Hot Shutdown." Specifically, the RHR train credited for emergency core cooling in MODE 4 was not verified to be full of water before its operability was required in MODE 4 following system draining during refueling outage 1R29. The licensee captured this issue into their CAP with a proposed corrective action to revise procedures to explicitly require these inspections prior to transitioning into MODE 4 during startup activities.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance, 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 of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee reviewed records associated with gas accumulation management activities during 1R29 and discovered that a non-conforming void was vented 12 – 18 hours after the transition to MODE 4. However, an operability review reasonably determined that this non conforming condition did not result in loss of operability. The inspectors did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance. (Section 40A2.1.c(2))

Inspection Report# : [2015008](#) (*pdf*)

**Significance:**  Nov 24, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Establish Procedures to Verify RHR is Full of Water Following Maintenance Outages (Section 40A2.1.c(3))**

Green. A finding of very low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self revealed for the licensee's failure to establish procedures to verify RHR is operable with respect to gas accumulation following maintenance outages. Specifically, procedures were not established to verify the system is sufficiently full of water when RHR is secured in its standby emergency core cooling system mode of operation during startup activities following maintenance outages. The licensee captured this issue into their CAP. As a long term corrective action, the licensee revised procedures to require gas accumulation inspections of the affected gas susceptible locations as part of the unit startup activities following a maintenance outage.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance, 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 of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed a past operability review of the limiting void found at the RHR piping after maintenance outages and reasonably concluded that the system remained operable. The inspectors did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance. (Section 40A2.1.c(3))

Inspection Report# : [2015008](#) (*pdf*)

**Significance:**  Nov 24, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Manage Potential Gas Accumulation Due to SI Isolation Check Valve Leakage Following Maintenance Outages (Section 40A2.1.c(4))**

Green. The inspectors identified a finding of very low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to manage potential gas accumulation due to safety injection isolation check valve leakage following maintenance outages. Specifically, the licensee did not evaluate the potential to accumulate nitrogen at multiple RHR and safety injection gas susceptible locations due to safety injection check valve unseating caused by maintenance outages. As a result, the station did not manage this gas intrusion mechanism. The licensee captured this issue into their CAP with a proposed corrective action to revise procedures to verify that the safety injection check valves are seated as part of the unit startup activities following a maintenance outage.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance, 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 of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed a past operability review of the limiting void found at one of the affected piping locations and reasonably concluded that the associated system remained operable. The inspectors did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance. (Section 40A2.1.c(4))

Inspection Report# : [2015008](#) (pdf)

**Significance:**  Nov 24, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Identify a Continuous Gas Intrusion into RHR (Section 40A2.1.c(5))**

Green. The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify a continuous gas intrusion into one train of RHR, which was a CAQ, resulting in a continuous undetected void growth that exceeded the applicable operability limits. The licensee did not consider applicable active gas intrusion mechanisms when evaluating the discovery of a void at the RHR piping. The licensee captured this issue into their CAP and stopped the continuous gas intrusion into the affected piping location.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance, 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 of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed a past operability review of the void and reasonably concluded that the system remained operable. The inspectors determined that this finding had a cross cutting aspect in the area of human performance because the licensee did not recognize and plan for the possibility of mistakes when evaluating the gas surveillance results of February 10, 2015. Specifically, the licensee did not plan for the possibility that the unacceptable results were indicative of a different problem than originally determined or a combination of problems. As a result, the licensee failed to identify the continuous gas intrusion incident. [H.12] (Section 40A2.1.c(5))

Inspection Report# : [2015008](#) (pdf)

**Significance:**  Sep 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO DETERMINE COMPENSATORY MEASURES.**

A finding of very low safety significance with two examples and an associated non-cited violation of Title 10, Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to accomplish the requirements of procedure FP-OP-OL-01, "Operability/Functionality Determination," Revision 14. Specifically, on two occasions, the licensee failed to determine compensatory measures following the identification of a Updated Safety Analysis Report (USAR) non-conforming condition associated with the Units 1 and 2 residual heat removal (RHR) recirculation sump valves on August 31, 2015, and for a degraded condition of the Unit 1 'B' RHR recirculation sump valves on September 14, 2015. The licensee entered the issues into the Corrective Action Program (CAP) as CAPs 01491302 and 01491900.

The inspectors determined that the licensee's failure to accomplish the requirements of procedure FP-OP-OL-01, "Operability/Functionality Determination," Revision 14, to properly determine compensatory measures for operable but degraded and operable but non-conforming conditions was a performance deficiency. The performance deficiency, with two examples, was determined to be more than minor and a finding in accordance with Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening," because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed on two occasions to properly determine compensatory measures to maintain or enhance operability of Technical Specification (TS) Systems, Structures, and Components (SSCs) that were not fully qualified until final corrective actions were taken. The inspectors applied IMC 0609, Attachment 4, "Initial Characterization of Findings," to this finding. The inspectors answered "No" to all questions within Table 3, "SDP Appendix Router," and transitioned to IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Per Exhibit 2, "Mitigating Systems Screening Questions," the inspectors 3 determined that because the finding was a qualification deficiency and did not impact operability of the TS SSCs, the finding screened as very low safety significance (Green). The inspectors determined that the performance characteristic of the finding that was the most significant causal factor for the performance deficiency was associated with the cross-cutting aspect of Consistent Process in the Human Performance cross-cutting area, involving individuals using a consistent, systematic approach to make decisions. Specifically, the licensee did not apply a consistent, systematic approach for determining the appropriateness of compensatory measures while making operability decisions for the degraded and non-conforming conditions associated with the RHR recirculation sump valves.

Inspection Report# : [2015003](#) (*pdf*)

**Significance:**  Sep 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**IMPROPER OPERABILITY DETERMINATION.**

A finding of very low safety significance and an associated non-cited violation of Title 10, CFR, Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to accomplish the requirements of procedure FP-OP-OL-01, "Operability/Functionality Determination," Revision 14. Specifically, on August 9, 2015, following the discovery of a non-functional D6 building ventilation system and declaration of inoperability of Buses 26, 221, 222, and the D6 DG, the licensee improperly declared the affected TS SSCs operable and fully qualified without restoring functionality of the ventilation TS support system or implementing appropriate compensatory measures per the requirements of FP-OP-OL-01. The licensee entered the issue into the Corrective Action Program as CAP 01490027.

The inspectors determined that the licensee's failure to accomplish the requirements of procedure FP-OP-OL-01, "Operability/Functionality Determination," Revision 14 was a performance deficiency. The performance deficiency was determined to be more than minor and a finding in accordance with IMC 0612, Appendix B, "Issue Screening," because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to

initiating events to prevent undesirable consequences. Specifically, the licensee improperly declared the TS SSCs operable and fully qualified without restoring functionality of a TS support system or implementing appropriate compensatory measures. The inspectors applied IMC 0609, Attachment 4, "Initial Characterization of Findings," to this finding. The inspectors answered "No" to all questions within Table 3, "SDP Appendix Router," and transitioned to IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Per Exhibit 2, "Mitigating Systems Screening Questions," the inspectors answered "No" to all questions under Section A, therefore the finding screened as very low safety significance (Green). The inspectors determined that the performance characteristic of the finding that was the most significant causal factor for the performance deficiency was associated with the cross-cutting aspect of Challenge the Unknown in the Human Performance cross-cutting area, involving individuals stopping when faced with uncertain conditions and evaluating and managing risk prior to proceeding. Specifically, the licensee did not properly evaluate and manage uncertain conditions associated with the ventilation system and impacts on TS SSC operability prior to proceeding with declaration of full qualification.

Inspection Report# : [2015003](#) (pdf)

**Significance:**  Sep 04, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**4160 Vac Switchgear Preventive Maintenance Procedure Failed to Provide Adequate Resistance Values and Acceptance Criteria (Section 1R21.3.b(1))**

Green. The team identified a finding of very low safety significance, and an associated NCV of Title 10, Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XI, "Test Control," for the licensee's failure to have an acceptance criteria for electrical contact resistance values in preventive maintenance procedures for 4160 Vac switchgear. Specifically, the licensee's preventive maintenance Procedure PE 0009, "4kV Switchgear Preventive Maintenance," failed to provide adequate resistance values and acceptance criteria for electrical connections at bus bar connection points and between 4kV switchgear cubicles. The licensee entered this finding into their Corrective Action Program (CAP) with a recommended action to add acceptance criteria into Table 1 of procedure PE 0009.

The performance deficiency was determined to be more than minor because it was associated with the procedural quality attribute of the Mitigating Systems cornerstone, and adversely 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 of very low safety significance because it was a design or qualification deficiency that did not represent a loss of operability or functionality. Specifically, the licensee determined the 4160 Vac switchgear cubicles were operable using guidance from Electric Power Research Institute Technical Report 1013457. The finding had a cross-cutting aspect associated with resources in the area of human performance. Specifically, the licensee management failed to ensure procedures are available to support successful work performance. [H.1] (Section 1R21.3.b(1))

Inspection Report# : [2015007](#) (pdf)

**Significance:**  Sep 04, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Inadequate Calculations for Motor-Operated Valve Thermal Overload Relays (Section 1R21.3.b(2))**

Green. The team identified a finding of very low safety significance, and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to assure the safety-related thermal overload relay heaters were properly sized. Specifically, the licensee failed to consider the effects of the higher acceptable stroke time limits specified in motor operated valve Surveillance Test Procedure SP 1137, "Recirculation Mode Valve Functional Test," in safety-related thermal overload sizing calculation H6.1, "Motor Operated Valve Thermal Overload Heater Sizing for General Electric Motor Control Centers," Rev. 5. The licensee entered this finding into their CAP, and has actions in-place to stroke motor-operated valves to prevent a thermal overload relay trip.

The performance deficiency was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance because the finding was a design deficiency confirmed not to result in a loss of safety function of a system or a train. Specifically, the licensee performed preliminary calculations and determined the thermal overload relays were operable. The team did not identify a cross-cutting aspect associated with this finding because it was confirmed not to be reflective of current performance due to the age of the performance deficiency. (Section 1R21.3.b(2))

Inspection Report# : [2015007](#) (pdf)

**Significance:**  Sep 04, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Replacement Containment Fan Cooling Unit Component Not Designed in Accordance with ASME Section III (Section 1R21.5.b(1))**

Green. The team identified a finding of very low safety significance, and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to design all components of the replacement Containment Fan Coil Units in accordance with Section III of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Specifically, the licensee failed to use Section III design rules to evaluate the Containment Fan Coil Unit header box as specified in the replacement Containment Fan Coil Unit design specification. The licensee entered this finding into their CAP with a recommended action to perform a condition evaluation for the new Containment Fan Coil Units to be installed in the upcoming refueling outage to ensure proper design code alignment with the design specification and the design report.

The performance deficiency was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very low safety significance because it was a design or qualification deficiency that did not represent a loss of operability or functionality. Specifically, the licensee's use of design rules from American Society of Mechanical Engineers, Section VIII, provided reasonable assurance for the Containment Fan Coil Unit header box pressure boundary integrity. The team did not identify a cross-cutting aspect associated with this finding because it was confirmed not to be reflective of current performance due to the age of the performance deficiency. (Section 1R21.5.b(1))

Inspection Report# : [2015007](#) (pdf)

**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**#12 BATTERY CHARGER DESIGN CONTROL.**

The inspectors identified a finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the design requirements of the #12 battery charger were maintained. Specifically, the licensee failed to address the impact that previously identified additional electrical loads had on the design capacity of the battery chargers from May of 2010 until April of 2015.

The inspectors determined that the failure to maintain the design basis for the battery charger was contrary to 10 CFR 50 Part 50, Appendix B, Criterion III, "Design Control," and was a performance deficiency. The finding was more than minor because it 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 (i.e., core damage). Specifically, the licensee failed to account for the additional electrical load of the inverters on the #12 battery charger. This additional load exceeded the battery charger's design capacity and as a result, the licensee could not demonstrate that the #12 battery charger would be capable of responding to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," issued June 19, 2012, and Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," issued June 19, 2012, the inspectors answered "Yes" to Question 2 of the Mitigating SSCs and Functionality screening questions because the finding represented a loss of function to the #12 battery charger. Thus the inspectors consulted the regional senior reactor analyst (SRA) for additional assistance and the finding was determined to be of very low safety significance (Green). No cross cutting aspect was assigned to this issue as the actions taken in 2011 were not reflective of current performance.

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

**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO CORRECT #12 BATTERY NONCONFORMANCE.**

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly correct a condition adverse to quality. Specifically, the licensee failed to correct a non-conforming issue for the #12 battery that was discovered in February 2011.

The inspectors determined that the failure to correct the non-conformance in a timely manner was contrary to 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," and was a performance deficiency. The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of Equipment Performance and affected the 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 licensee did not take timely corrective actions to resolve the #12 battery non-conformance. Additionally, no corrective action was taken to correct the occurrence of the inverters' AC circuit breakers tripping of the normal load and becoming an additional load on to the DC system; thereby causing the battery to be non-conforming. In accordance with Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," issued June 19, 2012, and Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," issued June 19, 2012, the inspectors answered "No" to all of the questions. The inspectors confirmed that the finding did not result in a loss of operability or functionality per IMC 0326, "Operability Determination & Functionality Assessments for Conditions Adverse to Quality or Safety," since the capacity of the battery had been tested above the 88.5% capacity factor per battery calculation and evaluation. Therefore, this finding was of very low safety significance (Green). The inspectors determined the finding was cross-cutting in the Problem, Identification and Resolution, Resolution area because of the licensee's failure to implement effective corrective actions to restore operability of the #12 battery.

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

**Significance:**  Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**DESIGN CONTROL MEASURES NOT IMPLEMENTED TO ENSURE GROUP E PRESSURIZER HEATERS REMAIN OPERATIONAL POST-FIRE.**

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," on October 13, 2014, for the licensee's failure to ensure the design requirements of the fire protection program were maintained. Specifically, the licensee had not ensured that Group E

pressurizer heaters would continue to operate following a fire in Fire Area 32 (the Unit 1 side of the auxiliary feedwater pump room). As a result, the licensee was unable to ensure that the Unit 1 reactor would be able to achieve and maintain a cold shutdown condition following a fire in this area.

The inspectors determined that the failure to ensure the design requirements of the fire protection program were maintained was contrary to 10 CFR 50, Appendix B, Criterion III, "Design Control," and was a performance deficiency. The finding was more than minor because it was associated with the Protection from External Factors attribute of the Mitigating Systems cornerstone. The finding also impacted the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors utilized IMC 0609, Attachment 4, "Initial Characterization of Findings," dated June 19, 2012, and determined that this finding was best assessed for safety significance by using IMC 0609, Appendix F, "Fire Protection Significance Determination Process." The inspectors used IMC 0609, Appendix F, Attachment 1, "Fire Protection SDP Phase 1 Worksheet," dated September 20, 2013, and assigned a Post Fire Safe Shutdown fire inspection finding category to the issue per Step 1.2. Based upon the information contained in Step 1.3 of IMC 0609, Appendix F, Attachment 1, the finding was determined to be of very low safety significance because any fire related damage to the Group E pressurizer heater cables did not impact the licensee's ability to reach and maintain a safe shutdown condition (either hot or cold). No cross cutting aspect was assigned to this issue since the missed opportunities to identify this issue occurred more than three years ago and were not reflective of current performance.

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

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

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## Public Radiation Safety

**Significance:**  Dec 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to Adequately Calibrate Liquid Effluent Monitors**

Green. The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation (NCV) of TS 5.5.1.a for the failure to comply with the Offsite Dose Calculation Manual (ODCM) for not using calibration sources which were traceable to the National Institute of Standards and Technology (NIST) or equivalent during the calibration of station effluent monitors. The licensee entered the issues into the corrective action program (CAP) as CAPs 01490581 and 01500149. Immediate corrective actions included the re-calibration of impacted monitors and the performance of an extent of condition to evaluate other radiation monitor calibrations.

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," dated September 7, 2012, because it was associated with the cornerstone of Public Radiation Safety and it adversely impacted the objective of ensuring adequate protection of public health and safety due to failure to properly calibrate certain effluent monitors. Subsequent calibration of the monitors determined that the monitor efficiency was previously overstated. The inspectors also reviewed IMC 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, but did not identify any similar examples. The finding was assessed using IMC 0609, Appendix D, "Public Radiation Safety Significance Determination Process," dated, February 12, 2008, and determined to be of very low safety significance (Green), because it was associated with the effluent release program but was not a failure to implement an effluent program, public dose did not exceed Appendix I criteria and the limits in Title 10 of the Code of Federal Regulations 20.1301(e) were not exceeded. A cross-cutting aspect was not assigned as this issue occurred numerous years ago. The station has since performed monitor calibration(s) with radioactive sources with known quality.

Inspection Report# : [2015004](#) (*pdf*)

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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

**Significance:** N/A Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**FAILURE TO MAKE AN 8-HOUR REPORT REQUIRED BY 10 CFR 50.72(b)(3)(ii)(B).**

The inspectors identified a Severity Level (SL) IV NCV of 10 CFR 50.72(b)(3)(ii)(B) due to the licensee's failure on August 8, 2014, to report an unanalyzed condition within eight hours of discovery. Specifically, the lack of fuse protection for the emergency bearing oil pump control circuitry created an unanalyzed condition due to the potential for a fire that impacted the licensee's safe shutdown capabilities.

The inspectors determined that the failure to submit a report required by 10 CFR 50.72 for the unanalyzed condition described above was a performance deficiency. The inspectors determined that this issue had the potential to impact the regulatory process based, in part, on the information that 10 CFR 50.72 reporting serves. Since the issue impacted the regulatory process, it was dispositioned through the Traditional Enforcement process. The inspectors determined that this issue was a Severity Level IV violation based on Example 6.9.d.9 in the NRC Enforcement Policy. Example 6.9.d.9 specifically states, "A licensee fails to make a report required by 10 CFR 50.72 or 10 CFR 50.73." Because the licensee identified the technical issue as part of their NFPA-805 transition process, and no additional or separate NRC-identified or self-revealed more-than-minor Reactor Oversight Process findings were noted, there was no cross-cutting aspect associated with this violation.

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