Robinson 2
3Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Identify and Correct Degraded Wire Labels in the Reactor Protection Relay Cabinets
A self-revealing Green non-cited violation (NCV) was identified for the licensee's failure to promptly identify and correct degraded wire labels in the reactor protection cabinets, which were a condition adverse to quality, as required by 10 CFR Part 50, Criterion XVI, Corrective Action. This resulted in an automatic reactor trip. Immediate corrective actions included inspection of both trains of relay racks to identify and remove any potential foreign material. The licensee also tested both trains of reactor protection relays to verify no foreign material was present. Additionally, the licensee plans to replace the wire labels in the reactor protection and safeguards relay racks during refueling outages 29 and 30. The licensee documented the issue in the corrective action program as CR 654789.
The performance deficiency was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the degraded wire labels became lodged between contact 2-6 on relay LC-496A1-X(B), which set up the half-trip condition to cause a reactor trip, during the surveillance testing. Using IMC 0609, Appendix A, issued June 19, 2012, The Significance Determination Process (SDP) for Findings At-Power, the inspectors determined that this finding is of very low safety significance (Green) because although the finding caused a reactor trip, it did not cause the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. This finding had a cross-cutting aspect of identification in the area of problem identification and resolution because the licensee failed to implement a corrective action program with a low enough threshold for identifying issues in that the licensee process did not recognize, during review of the work requests for the degraded wire labels, that this issue should have been entered into the corrective action program as a nuclear condition report. (P.1)
Inspection Report# : 2014003 *(pdf)*

Significance: G May 09, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Take Adequate Corrective Action to Preclude Repetition of a Significant Condition Adverse to Quality Associated with the Steam Generator Tube Leak
The team identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to take adequate corrective action to prevent repetition of a significant condition adverse to quality regarding steam generator tube leakage due to poor maintenance practices. Specifically, on February 27, 2014, the "C" steam generator showed indications of a primary to secondary tube leak due to foreign material that was introduced during the fall 2013 refueling outage. As immediate corrective actions, on March 7, 2014, the licensee shutdown the plant and repaired the leak. This violation was entered into the licensee's CAP as nuclear condition reports (NCRs) 683695, 683593, and 683591.

The licensee's failure to implement appropriate corrective actions to address poor worker practices to prevent recurrence of a steam generator tube leak was a performance deficiency. The finding was more than minor because it

was associated with the initiating events cornerstone equipment performance attribute and it adversely 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, foreign material entered the steam generator and damaged a steam generator tube, which increased the likelihood of a steam generator tube rupture. The finding screened as Green because testing showed that the affected steam generator tube could sustain three times the differential pressure across the tube during normal full power and that the steam generator did not violate the accident leakage performance criterion. The performance deficiency does not have a cross cutting aspect because the last revision of the root cause evaluation was completed in 2011 and it is not indicative of current licensee performance.
Inspection Report# : 2014008 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: FIN Finding
Steam generator tube leak resulting from foreign material
Green. A self-revealing Green FIN was identified for the licensee's failure to thoroughly inspect and remove foreign material from feedwater piping after initial breach of the pipe, as required by licensee procedure MNT-NGGC-0007, Foreign Material Exclusion Program. As a result, foreign material entered the "C" Steam Generator (SG) and damaged a tube which created a primary-to-secondary leak condition.

This finding was more than minor because it was associated with the Equipment Performance attribute of the Initiating Events cornerstone, and it adversely 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, foreign material entered the SG and damaged a SG tube, which increased the likelihood of a SG tube rupture (SGTR) and challenged the reactor coolant system (RCS) integrity safety function during shutdown. The inspectors used IMC 0609, Significance Determination Process, Attachment 0609.04, issued June 19, 2012, Initial Characterization of Findings, and Appendix A, issued June 19, 2012, The Significance Determination Process (SDP) for Findings At-Power, and determined that the finding was of low safety significance (Green) because testing showed that the affected SG tube could sustain three times the differential pressure across the tube during normal full power and that the SG did not violate the accident leakage performance criterion. The performance deficiency had a cross-cutting aspect of Challenge the Unknown in the area of Human Performance because the licensee did not stop when faced with the unknown or evaluate and manage risk before proceeding. Specifically, the licensee should have evaluated and addressed the FME issue resulting from the pipe spring condition during the initial breach of the feedwater piping before continuing. (H.11) (Section 1R08)

Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate preventive maintenance on 4 KV breaker 52/7 results in an automatic reactor trip
Green. A self-revealing Green finding (FIN) was identified for the licensee's failure to perform adequate preventive maintenance (PM) in accordance with, licensee procedure ADM-NGGC-107, Equipment Reliability Process, for 4 KV Breaker 52/7, Unit Auxiliary to 4 KV Bus 1. As a result, while transferring loads from the start-up transformer, a broken operating rod for breaker 52/7 prevented the breaker from closing and caused an automatic reactor trip.

The finding was more than minor because it was associated with the Initiating Events cornerstone attribute of Equipment Performance, and it adversely affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the performance deficiency resulted in breaker 52/7 failing to close and subsequently causing an

automatic reactor trip from 19 percent power operations on November 5, 2013. Using IMC 0609, Appendix A, issued June 19, 2012, The Significance Determination Process (SDP) for Findings At-Power, the inspectors determined that this finding is of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions would not be available. The performance deficiency had a cross-cutting aspect of Resolution in the area of Problem Identification and Resolution, because the licensee failed to take effective corrective actions to address a similar failure of an operating rod for the "A" circulating water (CW) pump breaker in 2011. (P.3) (Section 1R12)

Inspection Report# : 2014002 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Preparation for Cold Weather Conditions
The inspectors identified a Green non-cited violation (NCV) of Technical Specification 5.4.1 for the licensee's failure to implement freeze protection requirements specified in station procedures. Specifically the inspectors found that the required temporary enclosures were not installed and work orders for freeze protection circuits were not repaired prior to November 1, 2013, in accordance with procedure OP-925, Cold Weather Operation. The licensee initiated CR 645333 and took immediate corrective actions to install the necessary enclosures and to verify the proper operation of freeze protection circuits for safety related and fire protection equipment.

The licensee's failure to implement freeze protection requirements as required by procedure OP-925 was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the protection against external factors attribute of the initiating events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to implement the requirements of procedure OP-925 could limit the sites ability to detect, respond to, or mitigate the consequences of an accident. The finding was determined to be of very low safety significance (i.e. Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. More specifically, the site had not experienced freezing weather conditions of sufficient magnitude to challenge plant systems during this time period. The finding involved the cross-cutting area of Human Performance under the Work Control component in that the licensee failed to appropriately plan work activities by incorporating risk insights to ensure the activities required to prepare the plant for cold weather conditions were completed prior to the onset of cold weather. [H.3(a)]

Inspection Report# : 2013005 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to adequately critique fire brigade drills
Green. A Green NRC-Identified non-cited violation (NCV) of Facility Operating License DPR-23, Condition 3.E, Fire Protection Program, was identified for the licensee's failure to identify, critique, and develop corrective actions for fire brigade performance weaknesses during two fire drills as required by procedure TPP-219, Fire Protection

Training Program. Upon identification of these weaknesses by the inspectors, the licensee entered them into the corrective action program (CAP), performed an apparent cause evaluation, and revised procedure TPP-219 to further define the roles and responsibilities of the drill controllers as well as the standards used to critique the fire brigade.

The licensee's failure to identify, critique, and develop appropriate actions for fire brigade performance weaknesses during two fire drills as required by procedure TPP-219 was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using IMC 0609, Appendix A, issued June 19, 2012, The Significance Determination Process (SDP) for Findings At-Power, Exhibit 2, "Mitigating Systems Screening Questions," the finding was determined to be of very low safety Significance (Green) in accordance with question D.1 because although the finding involved fire brigade training requirements, the fire brigade demonstrated the ability to meet the required times for fire extinguishment for the fire drill scenarios and the finding did not significantly affect the fire brigade's ability to respond to a fire. The performance deficiency had a cross-cutting aspect of Consistent Process in the area of Human Performance, because the licensee failed to use a consistent, systematic approach during conduct of fire brigade drills and during the subsequent critique process. (H.13) (Section 1R05)

Inspection Report# : 2014002 *(pdf)*

Significance:  Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to provide adequate design control measures for diesel fuel oil cloud point
Green. The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion III, Design Control, because the licensee failed to provide adequate design control measures to ensure appropriate specifications were translated into procedures for diesel fuel oil (DFO) to ensure that the DFO temperatures remained above the DFO cloud point. The licensee entered this into the CAP as action request (AR) 664223 and took immediate corrective actions to change the cloud point acceptance criteria from 23 degrees to 10 degrees Fahrenheit and revise procedure OP-925, Cold Weather, to install temporary heaters if outside temperatures fell below 15 degrees Fahrenheit.

The licensee's failure to provide design control measures to ensure that the DFO temperature was maintained such that the cloud point was not reached was a performance deficiency. This finding is more than minor because it is associated with the protection against external factors attribute of the Mitigating Systems cornerstone and adversely 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). Specifically, during periods of cold weather the DFO temperature could have been allowed to fall below its cloud point and affect operation of the emergency diesel generator (EDG) and/or the dedicated shutdown diesel generator operation due to the DFO transfer system becoming inoperable. The inspectors evaluated the significance of this finding using IMC 0609 Appendix A, dated June 19, 2012, The Significance Determination Process (SDP) for Findings at Power, Exhibit 2, Mitigating Systems Screening Questions. The inspectors determined that this finding was of very low safety significance (Green) because the finding is a deficiency affecting the design or qualification of a mitigating SSC; however, the SSC maintained its operability or functionality since the design conditions were not actually reached. The performance deficiency had a cross-cutting aspect of Design Margins in the area of Human Performance because the licensee failed to recognize that additional actions were required to maintain operability of the DFO system when ambient temperatures are below the maximum administrative limit even though samples are reviewed monthly per the DFO Testing Program. (H.6) (Section 1R15)

Inspection Report# : 2014002 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Transient Materials Not Removed from Containment Prior to Reactor Startup
The inspectors identified a Green non-cited violation of Technical Specification (TS) 5.4.1 for the failure to properly implement procedure PLP-006, Containment Vessel Inspection Closeout, prior to startup following RFO 28. The improper closeout resulted in various tools as well as bags of consumable items and debris left in containment that could impact the containment sump strainer following an accident. The licensee initiated CR 640903, removed the items identified by the inspectors, and re-performed procedure PLP-006, Containment Vessel Inspection/Closeout, to further identify materials that should have been previously removed.

The failure to remove debris and various temporary materials as required by procedure PLP-006 was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the equipment performance 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. Specifically, the reliability and availability of ECCS equipment would be degraded by the introduction of material in to the containment that would impact and reduce the available area on the recirculation sump strainer. The inspectors determined that this finding is of very low safety significance (Green) because the finding did not represent an actual loss of function of one or more non-Tech Spec Trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding had a cross-cutting aspect in the Work Practices component of the Human Performance area, because the licensee failed to ensure that supervisor and management oversight of procedure PLP-006 ensured that debris was removed as required during containment closeout prior to reactor startup. [H.4(c)]

Inspection Report# : 2013005 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Unauthorized Entry Into a HRA
A self-revealing, Green, non-cited violation (NCV) of TS 5.7.1, "High Radiation Area," was identified for an unauthorized entry into a High Radiation Area (HRA). Specifically, two workers entered the residual heat removal pump room without knowledge of current radiological conditions and without wearing the prescribed electronic dosimetry for the area. The licensee entered this issue into the Corrective Action Program as Nuclear Condition Report 524523 and took immediate corrective actions including restriction of the workers from access to the Radiologically Controlled Area.

This finding was determined to be greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of Human Performance and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The finding was evaluated using the Occupational Radiation Safety Significance Determination Process. The finding was not related to As Low As Reasonably Achievable planning, nor did it involve an overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding involved the cross-cutting aspect of Human Performance, Work Practices because the HRA event was a direct result of inadequate pre-job briefings and a lack of self and peer checking on the part of the work crew. [H.4.a]

Inspection Report# : 2013005 *(pdf)*

Public Radiation Safety

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

Last modified : November 26, 2014