Clinton
1Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Follow Station Procedures for Plant Activities
The inspectors identified a finding of very low safety significance for the failure to ensure that activities were accomplished in accordance with prescribed procedures as required by station procedure HU-AA-104-101 “Procedure Use and Adherence.” Specifically, the inspectors identified two examples where the licensee failed to adhere to prescribed station procedures when performing activities in the plant. The licensee placed both issues in their corrective action program as AR 02600726 and addressed the nonconformances created by the failure to follow the procedures. The licensee planned to perform an apparent cause evaluation to determine why there was an adverse trend related to procedure adherence.

The inspectors determined that the failure to perform activities in accordance with prescribed procedures as required by station procedure HU-AA-104-101, “Procedure Use and Adherence,” was a performance deficiency. Specifically, the inspectors identified two instances where the licensee failed to follow procedures when performing activities in the plant. The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. Specifically, by not performing activities in accordance with a procedure the licensee could manipulate equipment and challenge the operators, and cause unexpected transients. Using IMC 0609, Attachment 4, “Initial Characterization of Findings,” and Appendix A, “The Significance Determination Process (SDP) for Findings at Power,” issued June 19, 2012, the finding was screened against the Initiating Events cornerstone and determined to be of very low safety significance because the finding did not cause a reactor trip or the loss of mitigation equipment and it did not involve the complete or partial loss of a support system that contributes to the likelihood of, or cause, an initiating event. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of challenging the unknown which stated, individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding. Contrary to this, when challenged with unknown conditions, the licensee did not stop and properly evaluate the issues before proceeding, resulting in adverse impacts to station equipment. (H.11)

Inspection Report# : 2015004 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
FAILURE TO FOLLOW PROCEDURE LEAVES CONTROL ROOM CABINET DOORS UNATTENDED IN SEISMICALLY UNANALYSED CONDITION
The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure to maintain control room doors in a seismically analyzed condition, in accordance with station procedure CPS 1014.11, “6900/4160/480v Switchgear/Circuit Breaker Operability Program,” Revision 5a. Specifically, on several occasions the licensee failed

to maintain control room cabinet doors in seismically qualified positions, while performing maintenance or trouble shooting activities, by leaving the doors open and unattended. The licensee documented the issue in the Corrective Action Program (CAP) as action request (AR) 02518477. The licensee has revised the station procedure to ensure control room cabinet doors either remain latched closed or are completely removed when unattended and has issued a standing order to ensure the requirements are reinforced.

The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, it was associated with the configuration control performance 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 and is therefore a finding. Specifically, leaving the control doors in a seismically unanalyzed condition could challenge critical safety functions during a seismic event. Using IMC 0609, Attachment 4, “Initial Characterization of Findings,” and Appendix A, “The Significance Determination Process (SDP) for Findings at Power,” issued June 19, 2012, the finding was screened against the Initiating Events cornerstone and determined to be of very low safety significance (Green) because the finding did not result in exceeding the reactor coolant system leak rate for a small loss of coolant accident (LOCA), cause a reactor trip, involve the complete or partial loss of a support system that contributes to the likelihood of, or caused, an initiating event and did not affect mitigation equipment. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of resources where leaders ensure that personnel, equipment, procedures and other resources are available and adequate to support nuclear safety. Specifically, the licensee failed to ensure the personnel performing maintenance and troubleshooting had adequate documentation in written work instructions to maintain control room cabinets in seismically analyzed conditions.

Inspection Report# : 2015003 *(pdf)*

Significance:  Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
POST MAINTENANCE TEST FAILED TO DEMONSTRATE REQUIRED FLOW THROUGH RCIC ROOM COOLER
A self-revealed finding of very low safety significance and an associated Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XI, Test Control, was documented by the inspectors for the failure to perform adequate post maintenance testing that would assure that the Reactor Core Isolation Cooling (RCIC) room cooler would perform its intended function when restored to service following maintenance. Specifically, the licensee declared the room cooler operable with insufficient cooling flow through the cooler. The licensee documented the issue in the licensee’s corrective action program (CAP) as action request (AR) 02447013. The licensee operated the RCIC Room Cooler outlet valve from its throttled position to fully open to flush the seat and the upstream piping and positioned the valve to maintain the required flow to restore the cooler to an operable condition.
The failure to perform adequate post maintenance testing that would assure that the RCIC Room cooler would perform its intended function when restored to service following maintenance is a performance deficiency. The performance deficiency was determined to be more than minor in accordance with IMC 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated September 7, 2012, because it was associated with the procedure quality 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 and is, therefore, a finding. Using IMC 0609, Attachment 4, “Initial Characterization of Findings,” and Appendix A, “The Significance Determination Process for Findings at Power,” dated June 19, 2012, the finding was screened against the Mitigating Systems cornerstone and determined to need a detailed risk evaluation because the finding represents the loss of a system and/or function. The Region III Senior Reactor Analysts (SRAs) evaluated the finding using the Clinton Station Standardized Plant Analysis Risk (SPAR) Model Version 8.17, Systems Analysis Programs for Hands-on Integrated Reliability Evaluations (SAPHIRE) Version 8.1.2. The SRAs reviewed the

licensee's Apparent Cause Investigation Report IR 2447013. The exposure time was assumed to be 150.5 hours based on information in that report. The SRAs modeled the condition using failure of the RCIC pump as a surrogate for failure of the RCIC room cooler. The basic event representing the RCIC pump failure-to-run was set to "True" for the 150.5 hour duration. The result was a ?CDF of 9.98E-08/yr. The dominant sequence was a station blackout initiating event; failure of high pressure core spray; failure of reactor core isolation cooling; and failure to recover offsite or emergency AC power within 30-minutes. Based on the detailed risk evaluation, the finding is best characterized as a finding of very low safety-significance (Green). The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of work management where the organization implements a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. The work process includes the identification and management of risk commensurate to the work and the need for coordination with different groups of job activities. Specifically, the licensee failed to plan and execute adequate post maintenance testing that would have ensured the satisfactory operation of the RCIC Room cooler following planned maintenance. [H.5]

Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
FAILURE TO TRANSLATE SUFFICIENT GLAND STRESS TO PACKING GLAND NUTS RESULTED IN VALVE PACKING FAILURE AND PLANT SHUTDOWN
A finding of very low safety significance and an associated Non-Cited Violation of 10 CFR50, Appendix B, Criterion III, "Design Control," was self-revealed on January 19, 2015, when a steam leak developed from the RCIC system inboard steam isolation valve (1E51F0063) stem packing. Specifically, the licensee failed to identify and implement a torque value for the gland packing nuts for the RCIC system inboard steam isolation valve 1E51F0063 to overcome service induced consolidation and prevent packing leakage. This resulted in a plant down power to 83 percent and subsequent plant shutdown due to increasing unidentified reactor coolant system leakage. The licensee documented the issue in the licensee's CAP as AR 02439437. The licensee repacked the valve utilizing the station procedure CPS 8120.37, "Valve Packing Installation," and applicable SealPro data sheet. A four ring set of A.P. Services graphite packing was installed with a new live load assembly sized to a new torque value of 59 ft-lbs. and the valve packing was tested to verify no leakage.
The inspectors determined that the failure to apply sufficient packing gland torque to overcome service induced consolidation and prevent packing leakage on the RCIC system inboard steam isolation valve was a performance deficiency. The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, it was associated with the equipment performance 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 and is therefore a finding. Using IMC 0609, Attachment 4, "Initial Characterization of Findings," and Appendix A, "The Significance Determination Process for Findings at Power," issued June 19, 2012, the finding was screened against the Initiating Events cornerstone and determined to be of very low safety significance (Green) because the finding did not result in exceeding the RCS leak rate for a small LOCA, cause a reactor trip, involve the complete or partial loss of a support system that contributes to the likelihood of, or caused, an initiating event and did not affect mitigation equipment. The inspectors determined that no cross-cutting aspect would be associated with this finding since the performance deficiency occurred in 2010 and was not representative of current licensee performance in the of valve packing.

Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015

Identified By: NRC
Item Type: FIN Finding
FAILURE TO EVALUATE THE OPERATIONAL IMPACT OF THE TDRFP LOCKOUT SWITCH POSITION
A self-revealed finding was identified for failure to evaluate the consequences of an adverse condition, in accordance with the operational decision making process. Specifically, contrary to station procedure OP-AA-106-101-1006 "Operational Decision Making Process," Revision 14, the licensee failed to adequately implement the procedure to ensure the consequences of leaving the switch in the lockout position were evaluated, which resulted in the loss of the manual trip function for the 'A' turbine driven reactor feed pump (TDRFP). The licensee documented the issue in the licensee's CAP as action request (AR) 02440052. The licensee repaired the ground condition and returned the switch to its normal position. The licensee also revised the surveillance procedure to document the limitations associated with putting the emergency governor trip test and lockout switch in the lockout position.
The inspectors determined that the failure to adequately implement the procedure to ensure the consequences of leaving the switch in the lockout position were evaluated, which resulted in the loss of the manual trip function for the 'A' TDRFP, was a performance deficiency. Specifically, by not evaluating leaving the emergency governor trip test and lockout switch in the lockout position, the licensee lost the ability to manually trip the 'A' TDRFP, which challenged the operators during the reactor shutdown, and nearly resulted in a Level 8 reactor SCRAM. The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. The performance deficiency was also associated with the configuration control 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 and power operations and is therefore a finding. Using IMC 0609, Attachment 4, "Initial Characterization of Findings," and Appendix A, "The Significance Determination Process for Findings at Power," issued June 19, 2012, the finding was screened against the Initiating Events cornerstone and determined to be of very low safety significance (Green) because the finding did not cause a reactor trip or the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of resources where leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety. Specifically, the surveillance procedure for the RFPT emergency governor and trip mechanism test Section 2.1.1 stated if an actual signal was generated during testing, the lockout valve would de-energize to allow the trip mechanism to operate and trip the RFPT, which led to the understanding that the trip functions were unaffected by the switch position. (H.1)

Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Feb 04, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform and Adequate Equipment Apparent Cause Evaluation (Section 4OA4)
The inspectors identified a finding of very-low safety significance (Green), and an associated Non-Cited Violation of Title 10, Code of Federal Regulations, Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow Step 4.3.4 of procedure PI-AA-125, "Corrective Action Program Procedure." Specifically, the licensee failed to perform Class "B" Equipment Apparent Cause Evaluation (EACE) 2381871, "1SX01PC Failed to Start for Testing," in accordance with PI-AA-125-1003, "Apparent Cause Evaluation Manual," because they: (1) failed to analyze each causal factor to determine contributing causes as required by Step 4.4.1.2; and

(2) failed to assign an effectiveness review for the EACE as required by Step 4.4.9.1. The licensee entered this finding into their Corrective Action Program and revised their EACE to: (1) include three contributing causes; (2) upgrade a corrective action to a corrective action to prevent recurrence; and (3) assign an effectiveness review to determine the effectiveness of the corrective action to prevent recurrence.

The performance deficiency was determined to be more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, an effectiveness review is required to provide assurance that the Division 3 SX pump design change is successful in preventing recurrence of pump failure before another pump failure occurs, which would be a more significant safety concern. The finding impacted the Mitigating Systems Cornerstone and screened as having very-low safety significance (Green) because although the finding is a deficiency ultimately affecting the design or qualification of the Division 3 SX pump, the pump still maintains its operability. The inspectors determined this finding had an associated cross-cutting aspect in the area of Human Performance ("Conservative Bias") because although a "B" Apparent Cause Evaluation may have been allowable for investigating the failure of the Division 3 SX pump, had an "A" Root Cause Analysis been performed, a more rigorous investigation process would have been used to identify contributing causes, assign corrective actions, and identify effectiveness reviews for the failure of the Division 3 SX pump. [H.14] (Section 4OA4.02.03.f)

Inspection Report# : 2016008 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform Activities Affecting Quality in Accordance with Prescribed Procedures
The inspectors identified a finding of very low safety significance and an associated Non-Cited Violation of 10 CFR50, Appendix B, Criterion V, "Instructions Procedures and Drawings," for the failure to ensure that activities affecting quality were accomplished in accordance with the appropriate instructions, procedures and drawings. Specifically, the inspectors identified two examples where the licensee failed to perform activities affecting quality in accordance with prescribed procedures. The licensee entered this issue into their corrective action program as action request (AR) 02600726 and planned to perform an apparent cause evaluation to address the trend. Separate action requests were also written and immediate corrective actions were taken for each identified example to address the nonconformances created by the failure to follow procedures.

The inspectors determined that the failure to ensure that activities affecting quality were accomplished in accordance with the appropriate instructions, procedures and drawings as required by 10 CFR 50 Appendix B Criterion V, was a performance deficiency. Specifically, the inspectors identified two instances where the licensee failed to follow procedures resulting in impacts to safety related equipment and processes. The performance deficiency was more than minor in accordance with Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. Specifically, by not performing activities affecting quality in accordance with a procedure the licensee could manipulate equipment and challenge the operators by causing unexpected transients or impact safety related equipment. Using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, issued May 9, 2014, the finding was screened against the Mitigating Systems cornerstone and determined to be of very low safety significance because the finding did not represent a loss of system safety function, it did not represent an actual loss of function of a single train or two separate trains for greater than its allowed outage time, it did not represent an actual loss of safety function of one or more non-TS trains of equipment during shutdown for equipment designated as risk significant for greater than 24 hours, and it did not degrade a functional auto-isolation of residual heat removal (RHR) on low reactor vessel level. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of challenging the unknown which states, individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding. Contrary to this, when challenged with uncertain conditions, the licensee did not stop and properly

evaluate the issues before proceeding, resulting in adverse impacts to safety related equipment and activities. (H.11)

Inspection Report# : 2015004 *(pdf)*

Significance: G Oct 09, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Generate Issue Reports for Conditions Adverse to Quality
The inspectors identified a finding of very low safety significance, and an associated NCV of Title 10, Code of Federal Regulations, Part 50, Appendix B, Criterion II, “Quality Assurance Program,” for the failure to perform activities in accordance with procedure PI-AA-125, “Corrective Action Program,” Revision 2, which was a Quality Assurance Program implementing procedure. Specifically, the inspectors identified six examples where the licensee failed to generate IRs for conditions adverse to quality (CAQ) as required by PI-AA-125, until prompted by the inspectors. The licensee documented the issue in the CAP as IR 2518477, and planned on reviewing the apparent cause evaluation to determine if additional actions needed to be taken.

The performance deficiency was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. Specifically, by not identifying and documenting conditions adverse to quality the issues would not go through the screening and review process in accordance with the corrective action procedure, which could impact the identification of conditions affecting operability. The finding was screened against the Mitigating Systems cornerstone, and determined to be of very low safety significance because the it did not represent a loss of safety system or function, it did not represent an actual loss of function of a single train of two separate trains for greater than its allowed outage time and it did not represent a loss of function of a non-technical specification system designated as highly safety-significant within the licensee’s Maintenance Rule Program for greater than 24 hours. The inspectors determined this finding affected the cross-cutting area of problem identification and resolution in the aspect of identification where the organization implements a CAP with a threshold for identifying issues and individuals identify issues completely, accurately and in a timely manner in accordance with the program. Specifically, the licensee failed to identify issues completely, accurately and in a timely manner, causing them to not recognize issues as CAQs, and therefore not follow their process for handling these issues.
Inspection Report# : 2015007 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
FAILURE TO IMPLEMENT AND COMPLY WITH TRANSIENT EQUIPMENT/MATERIALS PROGRAM
The inspectors identified a green finding and an associated NCV of 10 CFR 50, Appendix B, Criterion V “Instructions, Procedures, and Drawings” for the licensee’s failure to implement and comply with station procedure CPS 1019.05, “Transient Equipment/Materials,” Revision 23, to ensure that transient equipment and materials are controlled so there is no impact to safe operation of plant equipment. Specifically, on numerous occasions the inspectors identified equipment and materials improperly staged, improperly secured or in areas without engineering evaluations. The licensee documented the issue in the CAP as action requests (AR) 02507167 and AR 02529227. In each occasion identified by the inspectors the licensee subsequently removed the items identified to restore compliance with the station procedures.

The inspectors determined the licensee’s failure to implement and comply with station procedures to ensure that transient equipment and materials are controlled so there is no impact to safe operation of plant equipment was a performance deficiency. The performance deficiency was determined to be more than minor in accordance with IMC 0612, “Power Reactor Inspection Reports,” Appendix B, “Screening,” dated

September 7, 2012, because if left uncorrected it had the potential to lead to a more significant safety concern. Specifically, transient equipment and material in proximity of safety related components has the potential of impacting these components during a seismic event, potentially rendering them unable to fulfill their safety function. The performance deficiency is also 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 response to initiating events to prevent undesirable consequences, and is therefore a finding. Using IMC 0609, Attachment 4, “Initial Characterization of Findings,” and Appendix A, “The Significance Determination Process (SDP) for Findings at Power,” issued June 19, 2012, the finding was screened against the Mitigating Systems cornerstone and determined to be of very low safety significance (Green) because the finding did not represent a loss of system or function, it did not represent an actual loss of function of at least a single train for > its TS allowed outage time and it did not represent an actual loss of one or more not TS trains of equipment designated as high safety-significant in accordance with the licensee’s maintenance rule program. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of field presence where leaders are commonly seen in the work areas of the plant observing, coaching, reinforcing standards and expectation. Deviations from standards and expectations are corrected promptly. Specifically, after various examples of material placement being an issue, the licensee didn’t perform in field observations, caching and reinforcement of standards and expectations in the identified areas.

Inspection Report# : 2015003 *(pdf)*

Barrier Integrity

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
FAILURE TO OBTAIN A LICENSE AMENDMENT PRIOR TO MAKING MODIFICATIONS TO SECONDARY CONTAINMENT
The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.59(d)(1), “Changes, Tests, and Experiments” for the licensee’s failure to provide a written evaluation, which provided the basis for determining that the change to the secondary containment completed on December 18, 2014 did not require a license amendment. Specifically, the licensee made a change pursuant to 10 CFR 50.59(c), to the secondary containment, and eliminated the tornado wind and tornado missile loading condition from the FB Railroad Airlock (the enclosure walls and roof) and associated outer door (1SD1-31) Seismic Category I requirements and did not provide a written evaluation to provide a basis for the determination that this change would not result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system or component important to safety.

The inspectors determined that the licensee’s failure to provide a written evaluation, which provided the basis for determining that the change to the secondary containment completed on December 18, 2014 did not require a license amendment was a performance deficiency. Specifically, the licensee made a change pursuant to 10 CFR 50.59(c) to the secondary containment and eliminated the tornado wind and tornado missile loading condition from the FB Railroad Airlock (the enclosure walls and roof) and associated outer door and did not provide a written evaluation to provide a basis for the determination that this change would not result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety. The performance deficiency was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the design 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. In addition, the associated violation was determined to be more than minor because the inspectors could not reasonably determine if the changes to secondary containment would have required NRC prior approval. The licensee documented the issue in the CAP as action request (AR) 02534694. The licensee is complying with technical specifications anytime the inner railroad bay door is opened by entering the applicable action statements, evaluating weather conditions and impact to plant risk and establishing the necessary mitigating actions required prior to opening the door. Violations of 10 CFR 50.59 are dispositioned using the traditional enforcement process instead of the SDP because they are considered to be violations that potentially impede or impact the regulatory process. However, if possible, the underlying technical issue is evaluated under the SDP to determine the severity of the violation. In this case, the inspectors used IMC 0609, Attachment 4, "Initial Characterization of Findings," and Appendix A, "The Significance Determination Process for Findings at Power," issued June 19, 2012, the finding was screened against the barrier integrity cornerstone and determined to be of very low safety significance (Green) because the finding did not represent a degradation only of the radiological barrier function for the Standby Gas Treatment (SBGT) system nor did it represent a degradation of the function of the control room against smoke or toxic atmosphere. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of procedure adherence where individuals follow processes, procedures and work instructions. Specifically, the licensee failed to follow the 50.59 regulatory process as defined in station procedure LS-AA-104-1000, "50.59 Resource Manual," Revision 9.

Inspection Report# : 2015003 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
FAILURE TO ENTER APPROPRIATE TS ACTION STATEMENT FOR INOPERABLE RADIATION MONITORS DURING OPDRV ACTIVITIES
The inspectors identified a green finding and associated NCV of T.S. 3.3.6.1 "Primary Containment and Drywell Isolation Instrumentation" and 3.3.6.2 "Secondary Containment Isolation Instrumentation," for the failure to enter the appropriate action statement and take the associated actions related to inoperable containment radiation monitor instrumentation during operations with the potential to drain the reactor vessel. Specifically, with the containment ventilation dampers closed, the containment radiation monitor instrumentation would not be able to perform its safety function of sending a containment isolation signal for elevated containment radiation levels as required during OPDRVS. At the time of discovery the licensee had already concluded OPDRV activities and was therefore no longer in a mode of applicability. The licensee documented the issue in the CAP as action request (AR) 2566708. When this issue was identified the maintenance on the VR/VQ system was complete and no OPDRVs were in progress, therefor the T.S. noncompliance was no longer in effect.

The inspectors determined that the failure to enter T.S. 3.3.6.1 and 3.3.6.2 when the radiation monitor instrumentation was not able to perform its safety function during an OPDRV, was a performance deficiency. Specifically, the licensee failed to recognize that when the containment ventilation dampers were closed, the radiation monitors could not detect the radiation levels in primary containment and therefore could not fulfill their safety function of sending containment isolation signals in the case of elevated radiation levels in containment. The performance deficiency was more than minor in accordance with IMC 0612, "Power Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because, it was associated with the SSC and Barrier Performance attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events, and is therefore a finding. Specifically, the automatic containment isolation signal function of the radiation monitors was impacted when the containment ventilation dampers were closed during OPDRV operations. Using IMC 0609, Attachment 4, "Initial Characterization of Findings," and Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings," dated May 9, 2014, the finding was screened against the Barrier Integrity cornerstone and determined to need a detailed risk evaluation because the finding

represents a degradation of the ability to close or isolate the containment. Using Appendix G Exhibit 4, "Barrier Integrity Screening Questions," the Senior Reactor Analyst (SRA) determined that the finding degraded the ability to close or isolate the containment per Section B, "Containment Barrier," Question 6. Therefore, the evaluation was continued using IMC 0609 Appendix H, "Containment Integrity Significance Determination Process." The SRA determined this to be a "Type B" finding, because it was related to a degraded condition that had implications for containment integrity without affecting the likelihood of core damage. The SRA used Section 6.2 of Appendix H, "Approach for Assessing Type B Findings at Shutdown." Based on information from the inspectors, during all OPDRV time windows, the reactor water level was confirmed to be greater than the minimum level required for movement of irradiated fuel assemblies (i.e., greater than 22'8" above the flange). This plant condition meets the definition of "Plant Operating State 3 (POS 3) of Appendix H. Therefore, based on the plant being in POS 3 during the OPDRV time windows, the finding screens as Green based on Step 2.1 of Section 6.2 of Appendix H. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of conservative bias where individuals use decision making practices that emphasize prudent choices over those that are simple allowable. A proposed action is determined to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee relied solely on the successful completion of the surveillance requirements to determine the radiation monitor instrumentation was operable rather than considering the impact the closed dampers would have on their ability to fulfill their safety function.

Inspection Report# : 2015003 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
CONTRACT WORKERS NOT MONITORED FOR OCCUPATIONAL RADIATION EXPOSURE
The inspectors identified a finding of very-low safety significance and an associated NCV of Technical Specification (TS) 5.4.1, "Procedures," for the failure to monitor the radiation dose received by a group of workers as required by station procedure RP-AA-210, "Dosimetry Issue, Usage, and Control." Specifically, contractor employees who did not wear individual dosimetry were not monitored by the usage of an Area Badging Program and the workers were not excluded from wearing individual dosimetry by the usage of medical isotopes or external radioactivity being detected, or a previously performed evaluation by RP Supervision. The licensee documented the issue in the licensee's CAP as action request AR 02452005. The trailer was relocated to a distance further away from the radioactive material storage area. This reduced the radiation dose rate in the trailer.
The inspectors determined that the issue of concern was a performance deficiency because the licensee did not monitor a group of workers using one or more methods as required by procedure, RP-AA-210, "Dosimetry Issue, Usage and Control." The licensee did not assign radiation dosimetry to each worker, nor was an Area Badging Program in place. The inspectors determined that the cause of the performance deficiency was reasonably within the licensee's ability to foresee and correct and should have been prevented. The issue was not subject to traditional enforcement since the concern did not have a significant safety consequence, did not impact the NRC's ability to perform its regulatory function, and was not willful. The performance deficiency was determined to be of more than minor safety significance in accordance with IMC 0612, Appendix B, "Issue Screening," issued September 7, 2012, because it was associated with the program and process attribute of the Occupational Radiation Safety Cornerstone,

and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. Specifically, the licensee could not demonstrate compliance with other sections of 10 CFR Part 20, such as occupational dose limits, and records and reporting of individual monitoring results. The inspectors also reviewed the guidance in IMC 0612, Appendix E, “Examples of Minor Issues,” and did not find any similar examples. In accordance with IMC 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process,” issued August 19, 2008, the inspectors determined that the finding had very low safety significance (Green) because the finding: (1) did not involve as-low-as-reasonably-achievable planning and controls; (2) did not involve a radiological overexposure; (3) there was not a substantial potential for an overexposure; and (4) there was no compromised ability to assess dose. This finding has a cross-cutting aspect in the area of Human Performance, Change Management, because the primary cause of the finding was due to inadequate change management. Specifically, licensee supervision incorrectly located the trailer near a posted radiation area without performing an appropriate evaluation to ensure the personnel or area was correctly monitored. [H.3]

Inspection Report# : 2015002 *(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

Significance: N/A Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
FAILURE TO UPDATE THE FINAL SAFETY ANALYSIS REPORT (FSAR) - HYDROGEN WATER CHEMISTRY SYSTEM
The inspectors identified a Severity Level IV Violation of Title 10 Code of Federal Regulations (CFR) 50.71(e), "Periodic Update of the FSAR", for the licensee's failure to update the FSAR after installing a hydrogen water chemistry system into the plant to reduce rates of intergranular stress corrosion cracking (IGSCC) in recirculation piping and reactor vessel internals. Specifically, the licensee did not update Section 5.4.15, "Hydrogen Water Chemistry System" of the FSAR to include a design basis and description of process and system used to periodically injection noble metals. The licensee entered this issue into the corrective action program as AR 02594259 and is revising the FSAR include additional the design basis and additional system description for noble metal injection.

The inspectors determined that the failure to update the FSAR in accordance with 10 CFR 50.71(e), "Periodic Update of the FSAR", with the design basis and description of the process and system used to periodically injection noble

metals was a performance deficiency warranting a significance evaluation. The inspectors reviewed this issue in accrodance with NRC inspection manual chapter 0612 and the NRC enforcement manual. Violations of 10 CFR 50.71 (e) are dispositioned using the traditional enforcement process because they are considered to be violations that potentially impede or impact the regulatory process. The inspectors reviewed section 6.1.d.3 of the NRC Enforcement Policy and determined this violation was Severity :Level IV because the licensee's failure to update the FSAR as required by 10 CFR 50.71(e) had not yet resulted in any unacceptable change to the facility or procedures. No cross cutting aspect was assigned because cross cutting aspects are not assigned to traditional enforcement only violations. Inspection Report# : 2015004 *(pdf)*

Last modified : April 05, 2016