

Fort Calhoun 1Q/2015 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Implement Risk Management Actions for Planned Maintenance Activities

Green. The inspectors identified an NCV of very low safety significance of 10 CFR 50.65 paragraph (a)(4) “Requirements for Monitoring the Effectiveness of Maintenance of Nuclear Power Plants,” because the licensee did not effectively manage the increase in risk that resulted from maintenance activities. Specifically, the licensee failed to implement key risk management actions outlined in site risk assessment and management guidance for diesel driven auxiliary feedwater (AFW) pump maintenance that resulted in a “Yellow” risk configuration. This violation was entered into the licensee’s corrective action program and actions taken for this violation included verifying that all remaining online work prior to the scheduled refueling outage was properly screened and assessed in accordance with site risk management procedures. In addition, the licensee conducted training on risk management guidance that had been recently implemented during corporate alignment for personnel involved with scheduling and operations.

The inspectors determined that the licensee’s failure to implement key risk management actions outlined in site risk assessment and management guidance for diesel driven AFW pump maintenance was a performance deficiency within the licensee’s ability to foresee and correct and should have been prevented. The finding is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to perform maintenance on a continuous work schedule as required by site procedures resulted in a longer unavailability time of the equipment and an extended “Yellow” risk condition. Using NRC IMC 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process”, dated May 19, 2005, Flowchart 2, “Assessment of [Risk Management Actions]”, the inspectors determined the incremental core damage probability (ICDP) associated with the maintenance activity to be approximately 1E-7, and therefore was determined to have a very low safety significance (Green), since the calculated ICDP was less than 1E-6. Because the licensee did not use a systematic process to ensure that nuclear safety remained the overriding priority while they implemented a corporate alignment, the finding has a cross-cutting aspect in the area of Human Performance, Change Management (H.3).

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

Significance: G Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform an Adequate Battery Sizing and Load Profile Calculation

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design

Control,” which states, in part, “Measures shall be established to assure that applicable regulatory requirements and the design basis...are correctly translated into specification, drawings, procedures, and instructions.” Specifically, prior to March 13, 2015, the licensee failed to ensure that battery sizing and load profile calculations included proper design data for inrush currents, a random load, and possible worst case load currents. In response to these issues, the licensee updated the design values to account for the missed loads to ensure the batteries maintained adequate available margin. This finding was entered into the licensee’s corrective action program as Condition Report CR 2014-14857.

The team determined that the failure to adequately perform a battery sizing and load profile calculation, to ensure proper battery size and margin was maintained, was a performance deficiency. This finding was more than minor because it was associated with the design control 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. Specifically, the licensee failed to account for inrush currents, random loads, and worst case load currents during load profile and battery sizing calculations. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance. Inspection Report# : [2015007](#) (*pdf*)

Significance:  Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Establish Correct Acceptance Criteria Values for Battery Intercell Resistance Measurements

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” which states, in part, “Measures shall be established to assure that applicable regulatory requirements and the design basis...are correctly translated into specification, drawings, procedures, and instructions.” Specifically, since 2009, the licensee failed to update battery maintenance procedures with the current maximum intercell resistance values. In response to this issue, the licensee performed a visual inspection of the battery intercell connections, performed a review of the latest intercell resistance measurements to identify any values that exceeded the correct acceptance criteria value, and performed an immediate operability determination. This finding was entered into the licensee’s corrective action program as Condition Report CR 2015 02129.

The team determined that the failure to establish the correct acceptance criteria values for battery intercell resistance measurements was a performance deficiency. This finding was more than minor 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. Specifically, the licensee had incorrect acceptance criteria for maximum intercell connection resistance measurements, and failed to identify an intercell connection that should have been disassembled, cleaned, reassembled, and remeasured. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance associated with documentation because the licensee failed to maintain complete, accurate and up-to-date documentation.

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

Significance:  Mar 13, 2015

Identified By: NRC

Item Type: FIN Finding

Failure to Account for Elevated Battery Room Temperature Effects on Battery Service Life

Green. The team identified a Green finding for the licensee's failure to verify or check the adequacy of design of the 125 Vdc batteries from environmental effects. Specifically, the licensee failed to account for the effects of elevated battery room temperature on expected battery service life, in accordance with EPRI Standard TR-100248, "Stationary Battery Guide: Design Application, and Maintenance," Revision 2. In response to this issue, the licensee performed an immediate operability determination to evaluate the effects of the elevated battery room temperatures and to determine when to modify the testing frequency based on the shorter life of the batteries. This finding was entered into the licensee's corrective action program as Condition Report CR 2015 02390.

The team determined that the failure to account for elevated battery room temperature effects on battery service life was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to events to prevent undesirable consequences. Specifically, if left uncorrected, it could lead to a more significant safety concern in that the batteries could fail to maintain sufficient capacity and go undetected when testing at the normal 5 year interval. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of problem identification and resolution associated with operating experience because the licensee failed to evaluate and implement the EPRI standard based on industry experience when measuring room temperature readings above the optimal battery room temperature.

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

Significance:  Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inadequate Justification for Power Supplies Installed Beyond Vendor Recommended Life

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which states, in part, "design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program." Specifically, prior to March 12, 2015, the licensee failed to verify or check the adequacy of the reactor protective system power supplies: 1) service life as a function of expected life minus shelf life; 2) vendor requirements for in-storage and post-storage maintenance; and 3) including or addressing laboratory failure analysis conclusions that a required component was, although functional, at its "end of life" after 18 years. In response to this issue, the licensee performed an immediate operability determination, verified the power supply's ripple checks were within tolerance, performed an engineering evaluation to support an operable but non-conforming condition, and generated rework activities to replace/refurbish the installed power supplies. This finding was entered into the licensee's corrective action program as Condition Reports CR 2015-02809 and CR 2015 02811.

The team determined that the failure to perform an adequate justification for having reactor protective system power supplies installed beyond vendor recommend life was a performance deficiency. This finding was more than minor

because it was associated with the design control 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. Specifically, the licensee failed to perform an adequate justification for continued operation for reactor protective system power supplies that were beyond vendor recommended life. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform an Adequate Evaluation for the Auxiliary Building Crane

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which states, in part, "design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program." Specifically, prior to March 13, 2015, the licensee failed to perform an adequate design review to upgrade the auxiliary building single failure proof crane capacity, by failing to comply with ASME NOG-1-2004, "Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder)." In response to this issue, the licensee performed an operability determination and concluded that the crane was operable but non-conforming, and limited the use of the main hook to the original 75 ton value until the long term actions can be completed to restore the crane to fully operable. This finding was entered into the licensee's corrective action program as Condition Report CR 2015-02718.

The team determined that the failure to perform an adequate design review to upgrade the auxiliary building single failure proof crane capacity was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to events to prevent undesirable consequences. Specifically, the licensee failed to comply with ASME NOG 1 2004 requirements to ensure the auxiliary building crane remained elastic when subjected to design loads for safe load handling of heavy loads. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened to Exhibit 4, "External Events Screening Questions," because it was a function specifically design to mitigate a seismic event. Per Exhibit 4 the issue screened to a more detailed risk evaluation because if the seismic function were assumed to be completely failed and a load were dropped it would impact the spent fuel pool cooling or the safety injection refueling water storage tank functions. Therefore, the Region IV senior reactor analyst performed a more detailed risk evaluation. Given that the frequency of the initiating event is less than 1×10^{-6} , the analyst determined that the finding was of very low safety significance (Green). The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform an Adequate Auxiliary Feedwater Pump Runout Design Calculation

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” which states, in part, “design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.” Specifically, prior to March 13, 2015, the licensee did not verify the adequacy of the design calculation or a suitable testing program to ensure the required net positive suction head was available for the turbine-driven auxiliary feedwater pump. In response to this issue, the licensee performed an operability determination; revised several calculational errors, including removing conservatisms which resulted in a gain of net positive suction head; and contacted the original equipment manufacturer who provided a testing summary that determined the turbine-driven pump could operate for a period of time below the required net positive suction head. This provided the licensee with the basis for an operable but non-conforming condition. This finding was entered into the licensee’s corrective action program as Condition Report CR 2015-02414.

The team determined that the failure to verify the adequacy of the auxiliary feedwater system design through calculational analysis and a suitable test program was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability, availability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to have adequate measures in place to ensure an acceptable design analysis and a suitable test program to verify the design inputs and ensure the capability of the auxiliary feedwater system to perform its safety function. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance associated with conservative bias because individuals failed to use decision making practices that emphasize prudent choices over those that are simply allowed.

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

Significance: G Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform an Adequate Evaluation for the Intake Crane Trolley and Bridge Rail

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” which states, in part, “design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.” Specifically, prior to March 13, 2015, the licensee failed to perform an adequate design review to ensure the intake crane trolley and bridge rail were constructed to seismic class II over I standards. The licensee failed to ensure the intake crane trolley rail, trolley rail clip, trolley clip connection, crane rail, crane rail clip and crane clip connection were evaluated for loads due to the safe shutdown earthquake loading concurrent with a lifted load. In response to this issue, the licensee performed an operability determination and concluded that the crane was operable but non-conforming based on a load test that was performed at 1.25 times the rated capacity. This finding was entered into the licensee’s corrective action program as Condition Report CR 2015-02353.

The team determined that the failure to perform an adequate design review to ensure the intake crane trolley and bridge rail were constructed to seismic class II over I standards was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that

respond to events to prevent undesirable consequences. Specifically, the licensee failed to comply with seismic class II over I requirements to ensure the intake crane structural integrity when subjected to safe shutdown earthquake loads concurrent with a lifted load; for safe load handling of heavy loads near the safety-related raw water system. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened to Exhibit 4, "External Events Screening Questions," because it was a function specifically design to mitigate a seismic event. Per Exhibit 4 the issue screened to a more detailed risk evaluation because if the seismic function were assumed to be completely failed and a load were dropped it would impact the safety function of the raw water system. Therefore, the Region IV senior reactor analyst performed a more detailed risk evaluation. Given that the frequency of the initiating event is less than 1×10^{-6} , the analyst determined that the finding was of very low safety significance (Green). This finding had a crosscutting aspect in the area of human performance associated with documentation because the licensee failed to maintain complete, accurate and up-to-date documentation.

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

Significance: G Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Obtain Prior NRC Approval for a Change in Seismic Analysis Damping

Severity Level IV/Green. The team identified two examples of a Severity Level IV, Green, non-cited violation, of 10 CFR 50.59, "Changes, Tests and Experiments," for the licensee's failure to obtain a license amendment prior to implementing a change if the change would result in a departure from a method of evaluation described in the updated safety analysis report. Specifically, on February 23, 2015, and March 10, 2015, the licensee changed the facility to incorporate increased seismic damping for use in the intake crane and intake superstructure seismic analysis and seismic design; and in the raw water piping seismic analysis, respectively. In response to this issue, the licensee declared the intake structure as operable but non-conforming pending resolution of a license amendment request to permit the use of the increased damping value; and declared the raw water system as operable but non-conforming pending completion of the corrective actions to determine what actions are necessary to restore compliance to the licensing basis. This finding was entered into the licensee's corrective action program as Condition Reports CR 2015-02224 and CR 2015-02842.

The team determined that the failure to identify that the proposed change to incorporate increased seismic damping for use in the intake crane and intake superstructure seismic analysis and seismic design; and in the raw water piping seismic analysis, was a performance deficiency. This finding was also evaluated using traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability, availability and capability of systems that respond to initiating events to prevent undesirable consequences; and there was a reasonable likelihood that the change would have required NRC review and approval prior to implementation. Specifically, the licensee failed to determine that the proposed updated safety analysis report change, and associated design calculations, did involve a change to a structure, systems, or components such that it did adversely affect an updated safety analysis report described design function; less conservative seismic damping values, which required an evaluation to be performed. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. Since the violation is associated with a Green reactor oversight process violation, the traditional enforcement violation was determined to be a Severity Level IV violation, consistent with the example in paragraph 6.1.d(2) of the NRC Enforcement Policy. This finding had a crosscutting aspect in the area of human performance associated with design margins because individuals failed to

ensure margins were carefully guarded and changed only through a systematic and rigorous process.

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

Significance: G Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Adequately Account for Raw Water Pump Discharge Check Valve Back Leakage

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” which states, in part, that “design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.” Specifically, prior to March 13, 2015, the licensee did not properly verify the adequacy of the raw water system flow rate to its safety related components through calculational methods or through a suitable testing program. The licensee failed to include the raw water pumps discharge check valves allowable back leakage acceptance criteria into the design calculation. In response to this issue, the licensee performed an operability determination and verified that with the current back leakage flow rates all downstream safety related loads would be properly cooled. This finding was entered into the licensee’s corrective action program as Condition Reports CR 2015-01801, and CR 2015-01835.

The team determined that the failure to verify the adequacy of the raw water system design through calculational methods or through a suitable test program was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective to ensure the reliability, availability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to have adequate measures in place to ensure that a suitable test program verified design inputs which ensured the design attributes of the raw water system. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance: G Mar 13, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Properly Implement Procedures for Verifying Operator Time Critical Actions

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” which states, in part, “Activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these procedures.” Specifically, prior to February 25, 2015, the licensee failed to follow Procedure FCSG-56, “Time Critical Operation Standard,” to ensure all time critical operator actions were validated and verified. In response to this issue, the licensee determined that the continual training of job performance measures that test competency in completing many of the time critical actions provides a basis that all times are achievable. This finding was entered into the licensee’s corrective action program as Condition Report CR 2015-02443.

The team determined that the inadequate implementation of Procedure FCSG-56 for validation and verification of operator time critical actions was a performance deficiency. This finding was more than minor because it was associated with the human performance 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. Specifically, the licensee did not adequately implement Procedure FCSG-56 to ensure that all operator time critical actions listed in Attachment 1 were properly validated and verified; therefore the licensee could not demonstrate that all operator time critical actions could be executed in accordance with the design basis. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance associated with consistent process because individuals failed to demonstrate an understanding of the decision making process and use it consistently.

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

Significance: G Mar 05, 2015

Identified By: NRC

Item Type: FIN Finding

Failure to Conduct and Evaluate Simulator Testing In Accordance with ANSI/ANS-3.5-2009

The inspectors identified a Green finding with four examples for failing to conduct and evaluate simulator performance testing in accordance with the standards of ANSI/ANS-3.5-2009. Specifically, the licensee failed to do the following:

- Set initial reactor power at 15 percent in accordance with plant design for all performances between 1990 and 2014 of Transient (6), "Main Turbine Trip from Maximum Power Level That Does Not Result in Immediate Reactor Trip"
- Set the instantaneous main turbine load reduction to 10 percent as supported by design basis data in the 2014 performance of Transient (11), "Maximum Design Load Rejection"
- Evaluate the results of the 100 percent power Steady-State Performance Test using the correct acceptance criteria in accordance with the standard, Appendix B, Section B.1.1
- Evaluate all transient test results versus acceptance criteria 4.1.4(1) in accordance with the standard, Appendix B, Section B.1.2

After NRC identification of the transient test issues, licensee evaluation revealed that the initial conditions for Transients (5) and (10) were in error as well. The licensee initiated corrective action documented in condition reports 2014-14190, 2014-14208; and 2015-02547.

The licensee's failure to conduct and evaluate performance testing in accordance with the ANSI/ANS-3.5-2009 standard as endorsed by Regulatory Guide 1.149, Revision 4, was the performance deficiency. Per licensee Procedure TQ-AA-306, "Simulator Management," the licensee uses ANSI/ANS-3.5-2009 as the standard for their simulator testing. The performance deficiency is more than minor because if left uncorrected, the performance deficiency could have become more significant in that not completing the required simulator testing correctly can lead to not detecting and correcting errors in the simulator so it actually models the plant correctly. This can both leave the potential for negative training of licensed operators and call into question the ability to conduct valid licensing examinations with the simulator. Using Manual Chapter 0609, "Significance Determination Process," Attachment 4, Tables 1 and 2 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process (SDP)," Flowchart Block No.14, the finding was determined to have very low safety significance (Green) because it dealt with deficiencies associated with simulator testing, modification, and maintenance and there was no evidence that the plant-referenced simulator does not demonstrate the expected plant response or have uncorrected

modeling and hardware deficiencies.

This finding has a cross-cutting aspect in the change management area of human performance, associated with leaders using a systematic process for evaluating and implementing change so that nuclear safety remains their overriding priority. There were efforts on-site to change to the 2009 version of the standard as early as 2011, but the efforts were rescinded by plant management in December 2011 for unknown reasons. When they officially switched from the 1985 to the 2009 version of the standard (on March 1, 2013), there is no evidence an effective change management plan was implemented. Efforts to transition between the testing and maintenance requirement differences were complicated by lack of allocating necessary resources to support this effort. There was minimal simulator staffing during the extended plant outage (April 2011 to December 2013), and no effective plan to deal with knowledge management to compensate for simulator employee turnover. Internal audits in May 2014 and October 2014 found numerous issues with their simulator testing and configuration management program, many of which could have been averted or addressed earlier with an effective transition plan in place.

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

Significance:  Jan 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Follow Procedure during an Operability Determination

The team identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion V, for the failure to perform an operability determination in accordance with documented procedures. Specifically, the licensee failed to complete an operability determination related to Condition Report 2014-13202 in accordance with Procedure OP-FC-108-115, “Operability Determinations,” Revision 1. Consequently, after discovering dry boric acid accumulation at a welded joint on the high pressure safety injection pump discharge casing vent valve piping, the licensee exited the operability determination procedure prematurely, without performing an engineering evaluation for potentially degraded safety-related piping.

The failure to perform operability determinations in accordance with documented procedures is a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it affected the human performance attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. Using Inspection Manual Chapter 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” the team determined that the finding was of very low safety significance (Green) because all questions in Exhibit 2 could be answered in the negative. The team determined that the most significant contributor to the finding was that the licensee failed to stop when faced with the uncertain condition of the boric acid accumulation on the pump vent valve piping and resolve the issue prior to continuing (H.11).

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

Significance:  Jan 30, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Promptly Identify and Correct a Condition Adverse to Quality

The team reviewed a self-revealing Green non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s failure to promptly identify a condition adverse to quality. On October 27, 2014, a condition report was written to investigate dry boric acid on the high pressure safety injection Pump SI-2B vent valve piping. The initial investigation concluded that no degraded or nonconforming condition existed. On October 29, 2014, the Boric Acid Corrosion Control Program engineer conducted a review of the dry boric acid residue. The engineer identified the boric acid appeared to originate from a weld and needed to be cleaned and repaired; however,

the engineer failed to initiate a condition report documenting this condition adverse to quality.

The failure to promptly identify and correct a condition adverse to quality in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was a performance deficiency. Specifically, the licensee failed to write a condition report when there was evidence of a boric acid leak on the high pressure safety injection pump casing. This performance deficiency was of more-than-minor safety significance because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609 Appendix A, Exhibit 2, the finding was of very low safety significance (Green) because all questions in Exhibit 2 could be answered in the negative. The finding had a cross-cutting aspect in the procedure adherence component of the human performance cross-cutting area because the individual failed to write a condition report as required by procedure after identifying a condition adverse to quality (H.8).

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

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Establish Appropriate Preventive Maintenance and Failure to Identify Raw Water SSC Maintenance Rule Performance Criteria Exceeded and thereby establish Monitoring Requirements for the SSC

The inspectors identified an NCV of very low safety significance of 10 CFR 50.65 paragraph (a)(2) "Requirements for Monitoring the Effectiveness of Maintenance of Nuclear Power Plants," because the licensee did not demonstrate that performance of an SSC was being effectively controlled through appropriate preventive maintenance and did not monitor the performance of the SSC against licensee-established goals to provide reasonable assurance that the SSC was capable of fulfilling its intended function. Specifically, the licensee failed to demonstrate that the performance of HCV-2875A was being effectively controlled through appropriate preventive maintenance and failed to monitor HCV-2875A performance against licensee established goals when performance criteria were exceeded. Corrective actions taken for this violation included revising the Maintenance Rule performance criteria assessment for this SSC, classifying the SSC as 10 CFR 50.65 (a)(1), and specifying goals, corrective actions and monitoring for the system. The inspectors determined that the licensee's failure to demonstrate SSC performance through appropriate preventive maintenance and the failure to identify that system performance criteria had been exceeded and, as a result, the failure to perform an evaluation of the system for 50.65 (a)(1) goals, corrective actions, and monitoring, was a performance deficiency within the licensee's ability to foresee and correct and should have been prevented. Traditional enforcement did not apply as the issue did not have actual or potential safety consequences, had no willful aspects, and did not impact the NRC's ability to perform its regulatory function. A review of NRC Inspection Manual Chapter (IMC) 0612, Appendix E, "Minor Examples," revealed that no minor examples are applicable to this finding. The finding is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the Cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to demonstrate HCV-2875A performance through appropriate preventive maintenance had a direct impact on HCV-2875A performance and the reliability of the raw water system. In addition, the failure to identify that HCV-2875A performance criteria had been exceeded and thereby the failure to perform an evaluation for 50.65 (a)(1) goals and to specify corrective actions and implement monitoring when the functional failure was first identified, resulted in a delayed assessment of this SSC and additional failures occurred in the intervening timeframe which adversely affected the reliability of the raw water system.

The inspectors performed an initial screening of the finding in accordance with NRC IMC 0609, Appendix A, "the Significance Determination Process (SDP) for Findings at Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green)

because it: (1) was not a deficiency affecting the design or qualification of a mitigating system (2) did not represent a loss of system and/or function, (3) did not represent an actual loss of function of at least a single train or two separate safety systems out-of-service for greater than its TS allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution and the Evaluation aspect because the licensee failed appropriately evaluate the preventive maintenance for HCV-2875A to demonstrate SSC performance and failed to correctly evaluate a functional failure against system performance criteria to ensure system goals, corrective actions, and monitoring were identified.

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

Significance: **W** Oct 16, 2014

Identified By: NRC

Item Type: VIO Violation

Failure to Correctly Translate Design Requirements into Installed Plant Configuration

The team identified a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to assure that applicable regulatory requirements and the design bases, as defined in 10 CFR 50.2 and as specified in the license application, for those structure, systems and components to which this appendix applies, were correctly translated into specifications, drawings, procedures, and instructions. Specifically, from initial construction through October 2013, the licensee failed to fully incorporate applicable design requirements for components needed to ensure the capability to shut down the reactor and maintain it in a safe shutdown condition following a high energy line break. The licensee addressed this deficiency by reconstituting the design analysis associated with the high energy line break and environmental qualification programs, receiving a change to the facilities licensing basis, and implementing plant modifications. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-2857.

The failure to ensure that design requirements were correctly translated into installed plant equipment was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to translate the design requirements into installed plant equipment resulted in a condition where structures, systems, and components necessary to mitigate the effects of a high energy line break may not have functioned as required. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, and determined that this finding required a detailed risk evaluation because it was a deficiency affecting the design and qualification of a mitigating structure, system, or component that resulted in a loss of operability or functionality and represented a loss of system and/or function.

The Region IV senior reactor analyst performed a detailed risk evaluation in accordance with Appendix A, Section 6.0, "Detailed Risk Evaluation." The detailed risk evaluation concluded the finding was best characterized as having low to moderate safety significance (White). The minimum calculated change in core damage frequency of 4.1×10^{-6} was dominated by a reactor coolant pump seal cooler loss of coolant accident followed by the failure of four containment isolation valves that were not properly qualified for a harsh environment. The upper bound was shown quantitatively and/or qualitatively to be less than 1.0×10^{-5} . The analyst determined that the finding did not affect the external events initiator risk and would not involve a significant increase in the risk of a large early release of radiation.

The team determined that this finding does not have a cross-cutting aspect because the most significant contributor of this finding would have occurred more than three years ago, and therefore, does not reflect current licensee performance.

Inspection Report# : [2013018](#) (*pdf*)

Significance:  Oct 16, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Use of Non-conservative Values in Design Analyses

The team identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” associated with non-conservative errors identified in station calculations. Specifically, the licensee failed to use the yield strength for the most limiting type steel installed in the facility when evaluating changes to the chemical and volume control system, and failed to ensure that the acceptance criteria used for seismic anchors and supports verified that they were within the design requirements. The licensee performed an operability determination for the affected areas that established a reasonable expectation for operability pending final resolution of the problems. This issue was entered into the licensee’s corrective action program as Condition Report CR 2013-2857.

The use of non-conservative values in station design analyses is a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee’s use of non-conservative yield strength to analyze the pipe break loads during a high energy line break resulted in a condition where structures, systems, and components necessary to mitigate the effects of a high energy pipe break may not have functioned as required. Additionally, the failure to use appropriate acceptance criteria resulted in a condition where structures, systems and components may not have functioned as designed during a seismic event. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, the inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee’s maintenance rule program. The finding has a cross-cutting aspect in the area of human performance associated with the resources component because the licensee failed to maintain long term plant safety by maintenance of design margins. Specifically, Calculation FC 07885 failed to use the most limiting yield strength when determining potential pipe break loads which resulted in a reduction of design margin.

Inspection Report# : [2013018](#) (*pdf*)

Significance:  Oct 16, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Furnish Evidence of Activities Affecting Quality

The team identified three examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVII, “Quality Assurance Records,” associated with the licensee’s failure to furnish evidence of an activity affecting quality.

Specifically, the licensee failed to maintain records demonstrating that: the temperature limits for structural concrete in the Auxiliary building would not be exceeded during a high energy line break event, that the predicted flood level in Room 81 during a high energy line break event would not affect required equipment, and that electrical splices inside of the containment were installed in accordance with the plant and the vendor installation instructions. The licensee performed an operability determination for the deficiencies that established a reasonable expectation for operability pending final resolution of the problems. The licensee entered these deficiencies into their corrective action program for resolution as Condition Reports CR 2013-22556, and CR 2013-12359.

The licensee’s failure to furnish evidence of completing analyses or maintaining records for the flood level in Room 81 during a high energy line break event, the structural concrete temperatures in the Auxiliary building, and electrical

splice installations, is a performance deficiency. This performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, "Initial Screening and Characterization of Findings," dated July 1, 2012, the inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. The team determined that this finding does not have a cross-cutting aspect because the most significant contributor of this finding would have occurred more than three years ago, and therefore, does not reflect current licensee performance.

Inspection Report# : [2013018](#) (*pdf*)

Significance:  Oct 16, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Promptly Identify and Correct Inadequate Internal Flooding Analysis

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," associated with the licensee's failure to adequately evaluate and take prompt corrective actions to address an identified condition adverse to quality related to the internal flooding analysis for Room 81 of the Auxiliary building.

Specifically, the team could not locate the analyses for water level in Room 81 following a high energy line break in the room. This deficiency had previously been identified by the licensee and entered into its corrective action program, however, it was improperly closed without completing the analysis. The licensee performed operability assessments for the affected areas that established a reasonable expectation for operability pending final resolution of the problems. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-11831.

The licensee's failure to adequately evaluate and take prompt corrective actions to address an identified condition adverse to quality related to the internal flooding analysis for Room 81 was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that responds to initiating events to prevent undesirable consequences. Specifically, the licensee failed to take prompt corrective actions to address an identified condition adverse to quality related to the internal flooding analysis for Room 81 of the Auxiliary building. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate problems such that the resolutions address the causes.

Inspection Report# : [2013018](#) (*pdf*)

Significance: G Oct 16, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Use of Non-Conservative Inputs in Thermal Lag Analyses

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” involving the failure to use conservative inputs. Specifically, the licensee failed to verify that all inputs used in the thermal lag analysis for the environmental qualification program were representative of the most limiting condition. The licensee performed an operability determination for the affected areas that established a reasonable expectation for operability pending resolution of the problems. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-14504, and CR 2013-14168.

The failure to verify that all inputs used in the thermal lag analysis for the environmental qualification program were representative of the most limiting condition was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency called into question the availability and reliability of components required to mitigate the effects of a high energy line break. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee’s maintenance rule program. The team determined this finding has a cross-cutting aspect in the area of human performance associated with the decision-making component involving the failure to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Inspection Report# : [2013018](#) (*pdf*)

Significance: G Oct 16, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Recognize Adverse Design Changes

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” associated with the licensee’s failure to maintain design control of the auxiliary feedwater system. Specifically, the licensee implemented a modification to the facility that placed vent holes in the steam supply line guard piping for the steam driven auxiliary feedwater pump which were located below the evaluated flood height in Room 81 and potentially rendered the pump inoperable. The licensee implemented a facility modification to protect the vent holes from water intrusion. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-18308 and CR 2013-18605.

The failure to ensure that design requirements were correctly translated into installed plant equipment was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee’s failure to translate the design requirements into installed plant equipment resulted in a condition where the steam driven auxiliary feedwater pump may not have been able to perform its specified safety function. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, “The Significance Determination Process (SDP) for Findings at Power,” dated June 19, 2012, and

determined that this finding required a detailed risk evaluation because the turbine driven auxiliary feedwater pump was inoperable for longer than the technical specification allowed outage time. A regional senior reactor analyst performed a detailed risk evaluation and determined this finding to be of very low safety significance (Green) because the bounding change to the core damage frequency was approximately $1.2E-9$ /year. The dominant core damage sequences included feedwater and main steam line breaks with the consequential failure of the turbine driven auxiliary feedwater pump combined with other random failures of Train A and B equipment trains. Equipment that helped mitigate the risk included the diesel driven and motor-driven auxiliary feedwater pumps, which remained functional for the vast majority of sequences. This finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Inspection Report# : [2013018](#) (pdf)

Significance:  Oct 16, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Maintain Design Control of the Auxiliary Feedwater System

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to maintain design control of the auxiliary feedwater system. Specifically, the licensee implemented a modification to the facility that involved the installation of flood barriers surrounding the guard pipes and portions of the steam driven auxiliary feedwater pump steam supply lines that are below the evaluated flood height in Room 81. This modification would have acted like a catch basin and potentially caused the steam driven auxiliary feedwater pump (FW-10) to be inoperable during a high energy line break event. The licensee implemented a facility modification to protect the steam supply piping and vent holes from water intrusion. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-22770.

The failure to maintain design control of the auxiliary feedwater system was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the flood barrier installed only protected the FW-10 steam supply from flood waters rising from the floor; however, this water is postulated from a high energy line break, which would both spill onto the floor and spray into Room 81 without regard for direction. This resulted in a condition where the steam driven auxiliary feedwater pump may not have been able to perform its specified safety function. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at Power," dated June 19, 2012, and determined that this finding required a detailed risk evaluation because the turbine driven auxiliary feedwater pump was inoperable for longer than the technical specification allowed outage time. A regional senior reactor analyst performed a detailed risk evaluation and determined that the finding was of very low safety significance (Green) because the bounding change to the core damage frequency was approximately $1.2E-9$ /year. The dominant core damage sequences included feedwater and main steam line breaks with the consequential failure of the turbine driven auxiliary feedwater pump combined with other random failures of Train A and B equipment trains. Equipment that helped mitigate the risk included the diesel driven and motor-driven auxiliary feedwater pumps, which remained functional for the vast majority of sequences. The finding was determined to have a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action component because the licensee did not take appropriate corrective actions to address safety issues, in that, an additional modification was required to protect the FW-10 steam supply from the effects of a high energy line crack or break.

Inspection Report# : [2013018](#) (pdf)

Significance:  Sep 30, 2014

Identified By: NRC

Item Type: FIN Finding

Failure to Implement Procedural and Alarm Setpoint Changes in Support of an Operability Evaluation

The inspectors identified a Green finding for the licensee's failure to implement procedural changes and water level alarm setpoint changes relied upon by operators to initiate compensatory actions to maintain the operability of raw water pump AC-10C. The licensee subsequently implemented these changes.

The performance deficiency is more than minor because it is related to the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences, in that the failure to implement the required procedure and setpoint changes increased the likelihood that the affected raw water pump cable would become inoperable after significant rainfall or flooding. The inspectors performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. The finding has a cross-cutting aspect in the Human Performance area associated with the Avoiding Complacency aspect because operators did not recognize and plan for the possibility of mistakes and assumed that the necessary procedural and alarm setpoint changes had been made.

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

Significance:  Sep 30, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Maintain a Testing Program for the CS System (Section 1R15)

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because the licensee failed to ensure that a surveillance test program was sufficient to demonstrate that the containment spray (CS) system would perform satisfactorily in service. Specifically, from February, 2014, to September, 2014, the licensee failed on several occasions to adequately adjust the frequency of testing for gas voids in the CS system upon identification of gas voids beyond acceptance criteria. Consequently, the test monitoring frequency did not ensure operability of the CS system between tests. Subsequently, the licensee increased the CS monitoring frequency.

The performance deficiency is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. The finding has a cross-cutting aspect in the Problem Identification and Resolution area and the Trending aspect because the licensee failed to trend and analyze information from the corrective action program and other assessments in the aggregate to identify programmatic and common cause issues.

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

Significance:  Sep 30, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Verify the Adequacy of the Design of the FO-10 to FO-1 Fuel Oil Transfer System

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control.” because the licensee did not implement design-control measures commensurate with those applied to the original design when they implemented a system modification to the emergency diesel generator’s (EDG’s) fuel oil transfer systems. Specifically, in 1991, the licensee did not implement the design change or modification process when they placed an auxiliary boiler underground fuel oil storage tank fuel oil transfer system into service to meet the support function of transferring sufficient fuel to meet the mission time of the EDG’s safety function. The licensee has scheduled a design review of this modification.

The performance deficiency is more than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstones objective to ensure the reliability of systems that respond to mitigating events to prevent undesirable consequences. Despite not performing a design review of this modification, no loss of the fuel oil transfer system function occurred. The inspectors performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee’s maintenance rule program. The finding does not have a cross-cutting aspect because the failure to implement the design change verification process is not indicative of current licensee performance. The licensee’s current design change procedures require design reviews of this type of in-field modification.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Initiate Condition Reports for Gaps Identified in Resolving NRC Non-Cited Violations

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instruction, Procedures, and Drawings,” was identified involving the failure to follow procedures to initiate condition reports to enter conditions adverse to quality into the corrective action program. Specifically, the licensee failed to initiate condition reports in accordance with Procedure FCSG 24-1, “Condition Report Initiation,” Step 4.1.1.G, when deficiencies related to the station’s corrective actions implemented for NRC violations were identified. The licensee entered this issue into its corrective action program as Condition Report 2014-09063 and initiated action to write condition reports for identified gaps related to previous NRC violations.

This performance deficiency was more than minor, and therefore a finding, because if left uncorrected, it would have the potential to lead to a more significant safety concern. The team performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609 Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, this finding was of very low safety significance (Green) because it did not involve a loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance because the licensee elected to use an informal system to resolve these issues rather than the corrective action program.

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

Significance: G Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Multiple Examples of Failure to Evaluate Operability of Degraded or Non-Conforming Conditions

Multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified involving the failure to follow Procedure OP-FC-108-115, “Operability Determinations,” Revision 0a. In each example, the team identified that the licensee failed to make an immediate determination of operability for a degraded or non-conforming condition or failed to make an immediate determination of operability based on a detailed examination of the deficiency. The licensee took immediate corrective actions to update the incomplete or inaccurate operability determinations and entered the collective failures to follow station operability procedures into their corrective action program as Condition Report 2014-09163.

This performance deficiency was more than minor, and therefore a finding, because it affected the equipment performance attribute of the Mitigating Systems Cornerstone objective of ensuring the reliability of systems that respond to initiating events. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee’s maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of human performance because the licensee failed to use decision-making practices that demonstrate that a proposed action is to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee made non-conservative decisions related to the impact of degraded or non-conforming conditions.

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

Significance: G Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Adequately Perform an Operability and 50.59 Evaluation

A non-cited violation of 10 CFR 50.59, “Changes, Tests, and Experiments,” and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified involving the failure to evaluate and implement adequate compensatory measures for a degraded condition associated with raw water pump AC-10C. Specifically, the licensee’s operability determination established a compensatory measure to place pump AC-10C in pull-to-lock, contrary to the system single failure analysis design criteria described in the Updated Safety Analysis Report. The licensee entered this issue into its corrective action program as Condition Reports 2014-09104 and 2014-08515 and performed an operability evaluation and associated 10 CFR 50.59 evaluation that used an acceptable compensatory measure to pump water from affected manholes prior to affecting the degraded power feeder cable for raw water pump AC-10C.

The NRC evaluated this performance deficiency as both a reactor oversight process finding and a traditional enforcement violation. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an

actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution with an aspect of evaluation because the licensee failed to ensure that resolutions address causes and extent of conditions commensurate with their safety significance.

In addition, because this performance deficiency had the potential to impact the NRC's ability to perform its regulatory function in that the failure to obtain a license amendment for a change that could result in a malfunction of a structure, system or component with a different result than previously evaluated in the Updated Safety Analysis Report is in violation of 10 CFR 50.59(c)(2)(vi), the NRC also evaluated the violation using traditional enforcement. Since this violation is associated with a Green reactor oversight process violation, the traditional enforcement violation was determined to be a Severity Level IV violation, consistent with the example in paragraph 6.1.d(2) of the NRC Enforcement Policy.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform an Evaluation for a New Operator Manual Action to Refill Component Cooling Water System During Post-Accident Conditions

A non-cited violation of 10 CFR 50.59, "Changes, Test, and Experiments," was identified involving the failure to evaluate if a change to the facility as described in the Updated Safety Analysis Report would require prior NRC review and approval. Specifically, the licensee failed to evaluate if a change implemented under Engineering Change 59252 that credited the non-safety related demineralized water system as a make-up source to the component cooling water system during post-accident conditions represented an adverse change to the Updated Safety Analysis Report described design function. The licensee entered this deficiency into its corrective action program for resolution as Condition Report 2014-09151 and established action items to update Engineering Change 59252.

The NRC determined that the licensee's failure to perform an evaluation prior to implementing a proposed change described in the Updated Safety Analysis Report was a violation of 10 CFR 50.59. Because this violation had the potential to impact the NRC's ability to perform its regulatory function, the NRC evaluated the violation using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the NRC evaluated this finding using the significance determination process to assess its significance. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, this performance deficiency is characterized as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable because the issue involving the failure to perform an adequate 10 CFR 50.59 evaluation was strictly associated with a traditional enforcement violation.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inadequate Design Inputs into Safety Injection Piping Stress Calculation

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to implement appropriate design control measures associated with a safety-related pipe stress calculation. Specifically, several unverified and potentially non-conservative inputs were identified associated with Calculation FC07240 used to analyze stresses on a pipe reduction tee in the safety injection system. The licensee entered this issue into the corrective action program as Condition Report 2014-09098 and initiated action to update Calculation FC07240.

This performance deficiency was more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of components that respond to initiating events. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to apply the appropriate rigor when evaluating the overstressed pipe union tee.

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

Significance:  Sep 12, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Maintain Design Control of Raw Water Strainer Control Panel

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to maintain design control of the raw water strainer AC-12B control panel AI-348. Specifically, the licensee failed to adequately design control panel AI-348 to protect it from the effects of spraying and wetting as required by the plant's licensing and design basis. The licensee entered this issue into its corrective action program as Condition Reports 2013-03301 and 2014-06974 and initiated action to encase control panel AI-348 to protect it against the effects of spraying and wetting.

This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, control panel AI-348 was not designed to prevent water intrusion that resulted in a loss of power to raw water strainer AC-12B. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; (4) did not represent an actual loss of function of one or more

non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the organization thoroughly evaluating issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Accurately Model Flow Path for External Flood Mitigation

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to accurately model cell level control of river water during external flooding events. Specifically, the licensee failed to account for losses due to the physical obstructions of trash racks for inflowing river water, the decreased withdrawal rate of the raw water pumps due to fouling across the traveling screens, and a bounding inleakage rate for the sluice gates when the river level is at maximum level of 1014' mean sea level and the intake cell levels are at minimum level of 976'9". The licensee entered this issue into its corrective action program as Condition Report 2014-09155, performed an operability determination, and initiated action to update station calculations related to intake cell level control.

This performance deficiency was more than minor, and therefore a finding, because if left uncorrected, the finding would have the potential to lead to a more significant safety concern. Specifically, the failure to accurately model flow in and out of the cells could adversely affect the external flooding mitigation strategy beyond previously identified equipment capacities and operator actions. This finding was associated with the Mitigating Systems Cornerstone. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding has a cross-cutting aspect in the area of problem identification and resolution, operating experience, in that the licensee failed to incorporate relevant internal operating experience related to previous NRC inspection into Calculation FC08081.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Incorporate Design Requirements for Switchgear Room Cooling

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to translate applicable design requirements into the specifications for plant systems. Specifically, inadequate design control inputs were used for analyzing the ability of the vital switchgear room cooling system to perform its safety function under all conditions. The licensee entered this issue into its corrective action program as Condition Report 2014-08317 and initiated actions to analyze the ability of vital switchgear room cooling to meet its specified safety function.

This performance deficiency was more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone, and it directly affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the evaluation component of the problem identification and resolution cross-cutting area because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the licensee failed to analyze and evaluate a 1998 loss of switchgear cooling event to ensure that its use as a design assumption bound the worst design basis event.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: VIO Violation

Deficient Evaluation of NRC Bulletin 88-04, Strong Pump Weak Pump Due to Failure to Consider the Effect of AFW Pumps Discharge Check Valves Leakage

(Initial Entry)

A cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to assure that applicable regulatory requirements and design bases were correctly translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to properly evaluate NRC Bulletin 88-04, "Potential Safety-Related Pump Loss," for strong pump weak pump interaction regarding auxiliary feedwater pumps FW-6 and FW-10. The evaluation failed to consider pump-to-pump interaction that may result due to pump discharge check valve leakage. In addition, the licensee failed to re-evaluate the condition after surveillance testing performed on November 28, 2010, and September 1, 2012, identified leakage past both pump discharge check valves. The licensee entered this issue into its corrective action program as Condition Report 2014-08381 and initiated actions to re-evaluate NRC Bulletin 88-04.

This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance because the licensee failed to demonstrate a conservative bias in decision making-practices. Specifically, the licensee's determination that the event is not credible failed to consider documented check valve leakage in the auxiliary feedwater system.

(IR# 05000285/2014009 dated September 18, 2014)

(Update and Closure)

The team reviewed the licensee's corrective actions to address deficiencies related to VIO 05000285/2014009-10, "Deficient Evaluation of NRC Bulletin 88-04, Strong Pump Weak Pump Due to Failure to Consider the Effect of Auxiliary Feedwater Pumps Discharge Check Valves Leakage." The licensee's corrective actions are documented in a letter to the NRC, dated October 20, 2014 (ML14293A237). The team reviewed these corrective actions and determined them to be adequate to correct the deficiency; therefore, VIO 05000285/2014009-10 is closed.

(IR# 05000285/2015008 dated March 12, 2015)

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

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: VIO Violation

Failure to Ensure Safe Operations at Design Basis Low River Level

A cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to ensure that the safety-related raw water pumps are available for safe plant operations down to the design basis low river level. Specifically, station analysis and abnormal operating procedures would not allow operation of the raw water pumps to the design basis low river water level. The licensee entered this issue into its corrective action program as Condition Report 2014-09159 which included actions to reevaluate the capability of the raw water pumps to operate at low river levels.

This finding was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions," dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance in that the licensee did not ensure that personnel, equipment, procedures and other resources are available and adequate to support nuclear safety. Specifically, the licensee deferred funding for a vendor analysis of the capabilities of the raw water pumps at the design low river level.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: VIO Violation

Failure to Account for Worst Case Diesel Frequency in Fuel Oil Consumption Calculations

A cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified involving the failure to account for design basis conditions in station calculations. Specifically, the licensee failed to account for worst-case electrical frequency when analyzing diesel fuel oil consumption and storage requirements. The licensee entered this issue into its corrective action program as Condition Report 2014-09157 and initiated action to update station

calculations.

This performance deficiency was more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of components that respond to initiating events. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, the finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee’s maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of problem identification and resolution in that the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Promptly Identify and Correct a Condition Adverse to Quality

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” was identified involving the failure to take corrective actions for a condition adverse to quality. Specifically, the licensee failed to take corrective actions to address multiple issues involving gas voiding of the component cooling water system. As immediate corrective action the licensee placed a maintenance hold on the component cooling water system until adequate fill and vent procedures were established. The licensee initiated corrective actions to analyze the effects of gas accumulation on the component cooling water system and entered this issue into the corrective action program as Condition Reports 2014-08892, 2014-09011 and 2014-09034.

This performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that responds to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee’s maintenance rule program. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to operate the component cooling water system within design margins and failed to place special attention on minimizing longstanding equipment issues related to gas voiding in that system.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Correct Longstanding Software Classification Issues

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified involving the failure to take timely corrective actions to ensure the proper control and use of software products used in safety related applications. Specifically, the team identified multiple instances of uncontrolled software products in use at the licensee's facility following identification of similar deficiencies in 2009 and 2011. The licensee entered this issue into their corrective action program as Condition Report 2014-09162 and initiated action to strengthen their software control program.

The performance deficiency was more than minor, and therefore a finding, because if left uncorrected, it could lead to a more significant safety concern. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. Specifically, the apparent cause report for Condition Report 2009-04715 stated that a contributing cause was "first and foremost [there is] a lack of knowledge associated with the procedural requirements for software control at FCS".

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

G

Significance: Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inadequate Corrective Actions to Properly Implement Applicable ASME OM Code Requirements

A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified involving the failure to correct a condition adverse to quality associated with classification of check valves in the auxiliary feedwater system. Specifically, the licensee failed to update the in-service testing program to classify auxiliary feedwater discharge check valves as Category A/C valves and include required seat leakage testing. The licensee entered this issue into its corrective action program as Condition Report 2014-08452 and initiated actions to re-assess the current in-service testing methodology of check valves in the auxiliary feedwater system.

This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the licensee failed to evaluate the function of discharge check valves FW-173 and FW-174 when developing the in-service testing program and addressing previous

condition reports.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Maintain B.5.b Equipment in a State of Readiness to Support Mitigation Strategies

A non-cited violation of 10 CFR 50.54(hh)(2), “Conditions of License,” was identified involving the failure to maintain available equipment needed to implement mitigating strategies to maintain or restore core, containment, and spent fuel pool cooling capabilities following large fires or explosions. Specifically, the licensee failed to maintain available a flexible suction hose related to the reactor coolant system heat removal mitigating strategy. The licensee initiated Condition Report 2014-08876 to address this deficiency and initiated action to procure and replace the missing flexible suction hose.

This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance 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). The NRC determined that this finding was of very low safety significance (Green) using NRC Manual Chapter IMC 0609, Appendix L, “B.5.b Significance Determination Process,” because it resulted in an unrecoverable unavailability of an individual mitigating strategy but did not result in multiple unavailable mitigating strategies such that reactor coolant system heat removal could not occur. This finding has a crosscutting aspect in the area of human performance in that the licensee’s inadequate B.5.b inventory procedure contributed to the lack of recognition that the degraded flexible suction hose was required to implement mitigating strategies.

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

Significance:  Sep 12, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Correct Conditions Adverse to Quality in the Diesel Generator Starting Air System

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” was identified involving the failure to take timely corrective actions to address service life related degradation of the emergency diesel generator starting air system. As a result, diesel generator 1 failed to roll during planned surveillance testing due to a degraded diesel starting air valve. The licensee replaced the faulty starting air valve and implemented corrective actions to develop preventative maintenance strategies for the starting air system. The licensee entered this issue into the corrective action program as Condition Report 2014-09424.

The performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix G, Attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings”, Exhibit 3, “Mitigating Systems Screening Questions,” dated May 9, 2014, the finding was of very low safety significance (Green) because the finding does not represent a loss of system safety function and the finding does not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to recognize and plan for the possibility of latent issues, and inherent risk, even while expecting successful outcomes when determining the repair schedule for starting air valve SA-148.

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

Significance: G Sep 12, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Take Timely Corrective Actions for an Unsealed Raw Water System Control Panel

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” was identified involving the failure to take corrective actions to address a design deficiency affecting the control panel for raw water strainer AC-12B. Consequently, the panel experienced a water intrusion event on August 3, 2014, resulting in an unplanned inoperability of the raw water system. Following identification of this issue, the licensee implemented corrective actions to seal conduits leading to control panel AI-348 to prevent future water intrusion. The licensee entered this issue into its corrective action program as Condition Report 2014-09572.

This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee’s maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of problem identification and resolution in that the licensee failed to adequately review and provide timely responses to past operating experience that demonstrated that panel AI-348 was susceptible to water intrusion. Inspection Report# : [2014009](#) (pdf)

Significance: N/A Mar 01, 2013

Identified By: NRC

Item Type: VIO Violation

Continued Failure to Classify Intake Structure Sluice Gates as Safety Class 3

The inspectors identified a cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for licensee’s failure to classify the six intake structure exterior sluice gates and their motor operators as Safety Class 3 as defined in the Updated Safety Analysis Report, Appendix N. This violation was first presented in Inspection Report 05000285/2012002 and the licensee has remained in non-compliance.

The inspectors determined that the continued failure to classify the intake structure exterior sluice gates and their motor operators as Safety Class 3 was a performance deficiency. This finding was more than minor because it adversely impacted the protection against external events attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The significance of this finding is bounded by the significance of a related Yellow finding regarding the ability to mitigate an external flooding event (Inspection Report 05000285/2010008). This finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, for failure to thoroughly evaluate problems such that the resolutions address causes and extent of conditions. This also includes conducting effectiveness reviews of corrective actions to ensure that the problems are resolved [P.1(c)]

Inspection Report# : [2013011](#) (pdf)

Barrier Integrity

Emergency Preparedness

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Determine the Availability of Local Population Data for Use in Estimating Changes in the EPZ Population

The NRC identified a Green non-cited violation for the licensee's failure to determine the availability of 2013 state and local population data for use in estimating annual changes in the plume exposure emergency planning zone population. This finding is more than minor because the issue is associated with procedure quality and offsite Emergency Preparedness cornerstone attributes and adversely affected the Emergency Preparedness cornerstone objective. The finding was evaluated using Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated February 24, 2014, and was determined to be of very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded planning standard function. The planning standard function was not degraded because including state and local 2013 data would not have required the current emergency planning zone time estimate to be updated.

Appendix E to 10 CFR 50, Section IV.5, states, in part, that during the years between decennial censuses, nuclear power reactor licensees shall estimate emergency planning zone permanent resident population changes once a year using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. Contrary to the above, Fort Calhoun Station failed in 2013 to estimate emergency planning zone permanent resident population changes using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. Specifically, Fort Calhoun Station failed to determine whether State and local government population data was available prior to performing the analysis. This finding was assigned a cross-cutting aspect in the area of human performance associated with work management because the licensee failed to understand the scope of work performed by a contractor on their behalf, and failed to ensure the contractor fully complied with regulatory requirements. The issue was entered into the licensee's corrective action system as Condition Report 2014-12474.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: VIO Violation

Failure to Maintain Effectiveness of an Emergency Plan

A cited violation of 10 CFR 50.54(q)(2), "Conditions of License," was identified involving the failure to maintain the effectiveness of the site's emergency plan. Specifically, the licensee established an "Alert" low river level emergency classification criteria that was below the raw water pump's minimum suction requirements, contrary to the standard emergency action level scheme. The licensee entered this issue into its corrective action program as Condition Report 2014-08757 which included actions to re-evaluate the capability of the raw water pumps to operate at low river levels.

This finding was more than minor, and therefore a finding, because it was associated with the emergency response

organization performance attribute of the Emergency Preparedness Cornerstone and affected the associated cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, inaccurate emergency actions levels degrade the licensee's ability to implement adequate measures to protect public health and safety. The finding was evaluated using the Emergency Preparedness Significance Determination Process, and was determined to be of very low safety significance (Green) because the finding was not a lost or degraded risk significant planning function. The planning standard function was not degraded because the emergency classifications would have been declared although potentially in a delayed manner. This finding has a cross-cutting aspect in the area of human performance in that the licensee did not ensure that personnel, equipment, procedures and other resources are available and adequate to support nuclear safety. Specifically, the licensee deferred funding for a vendor analysis of the capabilities of the raw water pumps at the design low river level.

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

Occupational Radiation Safety

Significance: G Jun 30, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Failure to Control an Entry to a High Radiation Area Resulting in a Dose Rate Alarm

The inspectors reviewed a self-revealing, non-cited violation of Technical Specification 5.11.1.b, which resulted from an individual entering a high radiation area without being aware of the radiological conditions. Specifically, on July 19, 2013, an operator was performing valve lineup work in the reactor building. Although the operator was on a radiation work permit that allowed access to high radiation areas, access was only allowed with knowledge of the dose rates in the areas entered. As immediate corrective actions, the radiation protection supervisors coached the operator on properly informing Radiation Protection of his planned work areas and coached the radiation protection technician on having a more intrusive questioning attitude during briefings so that radworkers are properly informed of all hazards and radiological conditions. This issue was documented in the licensee's corrective action program as Condition Report CR 2014-14693.

The entry into a high radiation area without knowledge of the radiological conditions is a performance deficiency and is a violation of Technical Specification 5.11.1.b. The performance deficiency is more than minor because it is associated with the Occupational Radiation Safety cornerstone attribute of program and process (exposure control) and adversely affects the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, the inspectors determined the violation has very low safety significance because: (1) it was not an as low as is reasonably achievable finding, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. This violation has a cross-cutting aspect in the human performance area, associated with teamwork, because the operator did not properly communicate his work locations to the radiation protection technician for briefing and the technician did not display a questioning attitude to understand the work locations for the operator to properly brief him and ensure nuclear safety was maintained.

Inspection Report# : [2014003](#) (*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 Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Report Loss of Environmental Qualification of Safety Related Limit Switches within Required Time Limits

A non-cited violation of 10 CFR 50.73(a)(1), "Licensee Event Report System," was identified involving the failure to submit a required licensee event report. Specifically, the licensee failed to report within 60 days the discovery that Namco™ Type EA 180 limit switches were not environmentally qualified as required due to inadequate maintenance procedures, a condition that resulted in operation prohibited by the plant's technical specifications. The licensee restored compliance by submitting Licensee Event Report 05000285/2014-004 on June 20, 2014. The licensee entered this issue into its corrective action program as Condition Report 2014-08454.

The NRC determined that the failure to submit a licensee event report within the time limits specified in regulations was a violation of 10 CFR 50.73. This violation was evaluated using Section 2.2.4 of the NRC Enforcement Policy, because the failure to submit a required licensee event report may impact the ability of the NRC to perform its regulatory oversight function. As a result, this violation was evaluated using traditional enforcement. In accordance with Section 6.9 of the NRC Enforcement Policy, this violation was determined to be a Severity Level IV, non-cited violation. The NRC determined that a cross-cutting aspect was not applicable because the issue was strictly associated with a traditional enforcement violation.

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

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: VIO Violation

Failure to Perform Evaluation for Design Change

A cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," was identified involving the failure to evaluate if a change to the facility as described in the Updated Safety Analysis Report would require prior NRC review and approval. Specifically, the licensee did not evaluate a change that would permanently substitute a manual action for an automatic action to add water and nitrogen gas to the component cooling water surge tank. The licensee entered this issue into its corrective action program as Condition Report 2014-09080 and initiated action to evaluate the change to the component cooling water system.

The NRC determined that the licensee's failure to perform an evaluation prior to implementing a proposed change described in the Updated Safety Analysis Report was a violation of 10 CFR 50.59. Because this performance

deficiency had the potential to impact the NRC's ability to perform its regulatory function, the NRC evaluated the performance deficiency using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the team evaluated this finding using the significance determination process to assess its significance. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy this performance deficiency is being characterized as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this finding because the issue was strictly associated with a traditional enforcement violation. Inspection Report# : [2014009](#) (*pdf*)

Significance:  Sep 12, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Complete Corrective Actions in a Timely Manner

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified involving the failure to take timely corrective actions to address deficiencies in station calculations. Specifically, the licensee failed to update station calculations to incorporate actual test data for sluice gate leakage to ensure design basis flood levels do not adversely affect equipment important to safety. The licensee entered this issue into its corrective action program as Condition Report 2014-09156 and initiated actions to update station calculations.

This finding was more than minor, and therefore a finding, because if left uncorrected, the finding would have the potential to lead to a more significant safety concern. Specifically, failure to complete accurate calculations that support engineering modifications for mitigating the consequences of an external flooding event could lead to unanalyzed conditions adversely affecting safety related systems or components. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated July 1, 2012, this finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to prioritize an update to Calculation FC08081 following completion of the May 2013 in-leakage test.

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

Significance: N/A Sep 30, 2012

Identified By: NRC

Item Type: VIO Violation

Failure to Update the Updated Safety Analysis Report- Solid Waste

The inspectors identified a cited violation of 10 CFR 50.71(e), "Maintenance of Records, Making of Reports," for the failure to update the Updated Safety Analysis Report with a detailed description of the Original Steam Generator

Storage Facility. Specifically, since December 2006, the licensee stored a significant source of radioactivity in the Original Steam Generator Storage Facility, but failed to describe the volume of waste, the principal sources of radioactivity, the total quantity of radioactivity, and the estimated dose rate at the site boundary per curie of radioactivity in the Updated Safety Analysis Report. The licensee has entered this violation into their corrective action program as Condition Report 2012-05725.

This issue was evaluated using traditional enforcement because it has the potential to impact the NRC's ability to perform its regulatory function. This issue is being characterized as a Severity Level IV violation in accordance with Section 6.1.d.3 of the NRC Enforcement Policy. Cross-cutting aspects are not assigned to traditional enforcement violations

Inspection Report# : [2012005](#) (*pdf*)

Last modified : June 16, 2015