

## Fort Calhoun 2Q/2014 Plant Inspection Findings

---

### Initiating Events

---

### Mitigating Systems

**Significance:** G Mar 31, 2014

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Follow Procedures for Classifying Component Failures**

The inspectors identified a Green finding for the licensee's failure to follow a procedure for classifying component failures. Specifically, the licensee's failure to follow Procedure FCSG-69-5, "Failure Identification and Reporting," is a performance deficiency. As a result, the failure of the Turbine Driven Auxiliary Feedwater Pump, FW-10, to start on demand was not identified as a functional failure. The licensee documented the finding in the corrective action program as Condition Report 2014-04217.

The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the performance deficiency could have the potential to lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. The finding is of very low safety significance (Green) because it did not affect the design or qualification of a mitigating system, structure, or component (SSC), represent a loss of system function, or loss of function of single or multiple trains of equipment. The finding had a human performance crosscutting aspect associated with training because the licensee failed to provide adequate training to the engineering staff.

Inspection Report# : [2014007](#) (*pdf*)

**Significance:** G Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to correct conditions adverse to quality in the containment internal structure and auxiliary building**

The inspectors identified multiple examples of a green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify and correct conditions adverse to quality. Specifically, the licensee failed to take appropriate corrective action since 1993 when they identified that the containment internal structure and auxiliary building had discrepant documentation between the size of structural beams and columns shown in drawings versus calculations. Failure to correct conditions adverse to quality is a performance deficiency. The licensee documented the finding in the corrective action program as Condition Report 2014-04219.

The licensee failed to take appropriate corrective action when they identified that the containment internal structure and auxiliary building had discrepant documentation between the size of structural beams and columns shown in drawings versus calculations. The performance deficiency is more-than-minor and therefore a finding because if left uncorrected the performance deficiency has the potential to lead to a more significant safety concern. The failure to take appropriate corrective actions for conditions adverse could adversely affect the Mitigating Systems Cornerstone

objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a mitigating SSC that did not affect operability or functionality. The finding does not have a crosscutting aspect because it is not reflective of current plant performance.

Inspection Report# : [2014007](#) (pdf)

**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to check the adequacy of the design for the Reactor Vessel Head structural elements**

The inspectors identified a green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to ensure the design of the Containment Internal Structure (CIS) for the reactor vessel head stand met Current Licensing Basis (CLB) requirements. Specifically the design did not meet the CLB requirements as defined in Updated Safety Analysis Report . The failure to ensure the design of structures, systems, or components meet their Current Licensing Basis is a performance deficiency. The licensee documented the finding in the corrective action program as Condition Report 2014-04218.

The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the failure to ensure structures, systems, or components meet their Current Licensing Basis design requirements could lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process (SDP)," Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for Both PWRs and BWRs," dated May 25, 2004, and determined that the finding is of very low safety significance (Green) because the finding did not require quantitative assessment. The finding has a crosscutting aspect in the area human performance because the licensee did not ensure the CIS at elevation 1045 ft. for storage of the reactor vessel head maintained adequate design margin.

Inspection Report# : [2014007](#) (pdf)

**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to follow an immediate operability determination procedure**

The inspectors identified a green non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow an operability determination procedure. Upon identifying that that a relief valve had not been testing within the required testing frequency the licensee failed to adequately address how this deficiency could affect the safety function of the component. Specifically, the licensee concluded the valve was operable based only on the consideration that it was not leaking. The licensee documented the finding in the corrective action program as Condition Report 2014-03055.

The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the failure to determine the ability of a structure, system, or component to perform its current licensing basis function in accordance with station procedures could lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because it did not affect the design or qualification of a mitigating SSC, represent a loss of system function or loss of function of single or multiple trains of equipment. The finding has a crosscutting aspect in the human performance area because the licensee did not create and maintain complete,

accurate, and up-to-date documentation.

Inspection Report# : [2014007](#) (*pdf*)

**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to implement an adequate PMT procedure**

The inspectors identified a green non-cited violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” involving the failure to establish and implement an adequate procedure for Post Maintenance Testing (PMT). Specifically, following maintenance on a raw water strainer the licensee’s PMT failed to verify the flow capacity through the system required to determine operability. The failure to establish an adequate procedure to determine PMT is a performance deficiency. Subsequently, the licensee performed an adequate PMT verifying system flows were adequate and documented the deficiency in the corrective action program as Condition Report 2014-03084.

The performance deficiency is more-than-minor and therefore a finding because inadequate PMT following maintenance activities could adversely affect the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) For Findings At-Power,” Exhibit 2, “Mitigating Systems Screening Questions,” dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because the finding did not affect the design or qualification of a mitigating SSC, represent a loss of system function or loss of function of single or multiple trains of equipment. The finding has a crosscutting aspect in the area of problem identification and resolution because the licensee did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance.

Inspection Report# : [2014007](#) (*pdf*)

**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to perform an immediate operability determination**

The inspectors identified a green non-cited violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the licensee’s failure to perform an operability determination as required by NOD-QP-31, “Operability Determinations Process (ODP).” Specifically, following the failure of an auxiliary building ventilation damper to open the licensee failed to evaluate the operability of equipment potentially impacted. The failure to perform an immediate operability determination is a performance deficiency. The licensee documented the finding in the corrective action program as Condition Report 2014-00211.

The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the failure to determine the ability of a structure, system, or component to perform its current licensing basis function in accordance with station procedures could lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) For Findings At-Power,” Exhibit 2, “Mitigating Systems Screening Questions,” dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because the finding did not affect the design or qualification of a mitigating SSC, represent a loss of system function or loss of function of single or multiple trains of equipment. The finding has a crosscutting aspect in the area human performance because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values.

Inspection Report# : [2014007](#) (*pdf*)

**Significance:** **W** Mar 14, 2014

Identified By: NRC

Item Type: VIO Violation

**Failure to Ensure Tornado Missile Protection for Site Components**

The team identified multiple examples of a violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," involving the failure to establish applicable tornado missile protection design requirements for components needed to ensure the capability to shut down the reactor and maintain it in a safe shutdown condition. Specific examples included the steam driven auxiliary feedwater pump exhaust stack, auxiliary feedwater components located in Room 81, raw water pump electrical pull boxes PB-128T and PB-129T, and diesel generator fuel oil storage tank fill and vent lines. The licensee implemented plant modifications to adequately protect all affected equipment from tornado generated missiles and entered the deficiencies into its corrective action program for resolution as Condition Reports CR 2013-03839, 2013-03842, 2013-14117, and 2013-14246.

The failure to ensure that station components were adequately protected from tornado missiles was a performance deficiency. In accordance with NRC Inspection Manual Chapter 0612, Appendix B, "Issue Screening," the 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. Specifically, the finding affected the reliability of required components following a postulated tornado-generated missile impact. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at Power," Exhibit 4, "External Events Screening Questions." The finding required a detailed risk evaluation because it involved the lack of equipment specifically designed to mitigate a severe weather initiating event (tornado) and could have degraded two or more trains of a multi-train system.

The Region IV senior reactor analyst performed a detailed risk evaluation in accordance with Appendix A, Section 6.0, "Detailed Risk Evaluation." The NRC concluded the finding was characterized as having low to moderate safety significance (White). The calculated change in core damage frequency of  $2.6 \times 10^{-6}$  was dominated by a tornado-induced non-recoverable loss of offsite power with the failure of the emergency power supply system. The analyst determined that the finding did not affect the internal events initiator risk and would not involve a significant increase in the risk of a large early release of radiation.

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.

The NRC has concluded that the information regarding the reason for the violation, the corrective actions implemented to correct the violation and prevent recurrence, and the date when full compliance was achieved was obtained by the NRC during our inspection activities. Therefore, the licensee is not required to respond to this letter unless the description contained in the enclosed report does not accurately reflect corrective actions or the licensee's position. Additionally, since this issue was identified and resolved by the station during the extended shutdown, under increased NRC oversight of the Inspection Manual Chapter 0350 Process, this issue will not be used for future plant performance assessment inputs and is considered closed.

Inspection Report# : [2013017](#) (*pdf*)

**Significance:** **G** Mar 14, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Promptly Identify and Correct a Condition Adverse to Quality**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Actions,” involving the failure to promptly identify and correct a condition adverse to quality. Specifically, from August 2005 to July 15, 2013 the licensee failed to promptly identify and correct inadequate Class 1 structures wall thickness deficiencies to protect systems and components contained within from tornado generated missiles. The licensee resolved this issue by implementing changes to the facility through a licensing amendment that was reviewed and approved by the NRC. This issue has been entered into the corrective action program as Condition Report CR 2013-14363.

The licensee’s failure to promptly identify and correct conditions adverse to quality was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings at Power,” the finding was determined to have 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-significance 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. 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. Specifically, in 2005 the licensee identified that wall thicknesses for areas of the auxiliary building and intake structure were less than design requirements. The licensee failed to enter this deficiency into the corrective action process and inappropriately used an alternate acceptance criteria that was not part of the facility licensing basis.

Inspection Report# : [2013017](#) (*pdf*)

**Significance:** G Mar 14, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Operability Procedure**

The inspectors identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” associated with the licensee’s failure to follow Station Procedure NOD-QP-31, “Operability Determination Process,” when evaluating deficiencies associated with inadequate tornado missile protection for required components. Specifically, Step 4.3.15 required, in part, that, “A positive determination of operability must be justified, including ... a technical discussion of why the concern identified does not prevent the item from fulfilling its intended safety function.” In each example, the team identified that the operability determination lacked adequate technical justification for why the item was operable with the degraded or nonconforming condition. The licensee addressed these issues by taking corrective actions that provided adequate tornado missile protection in accordance with design basis requirements. The licensee entered this deficiency into its corrective action program for resolution as Condition Reports CR 2013-15429 and 2013-14006.

The failure to properly assess and document the basis for operability when a degraded or nonconforming condition was identified was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding involving inadequate operability

determinations occurred while in a shutdown condition, the team used Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” and determined the finding to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of reactor coolant system inventory, the finding did not degrade the licensee’s ability to terminate a leak path or add reactor coolant system inventory when needed, and the finding did not degrade the licensee’s ability to recover decay heat removal once it was lost. 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 when performing operability determinations.

Inspection Report# : [2013017](#) (*pdf*)

**Significance:**  Mar 14, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Temporary Modification to Protect Against Tornado Generated Missiles**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” associated with the licensee’s failure to provide adequate instructions or procedures for the construction of temporary barriers to protect raw water pump electrical pull boxes PB-128T and PB-129T from tornado generated missiles in temporary modification EC 60183. The licensee addressed this issue by modifying the temporary barriers. This issue has been entered into the licensee’s corrective action program as Condition Report CR 2013-13955.

The failure to provide adequate instructions for construction of temporary barriers to protect the raw water pump electrical pull boxes from tornado generated missiles was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding involving inadequate operability determinations occurred while in a shutdown condition, the team used Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” and determined the finding to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of reactor coolant system inventory, the finding did not degrade the licensee’s ability to terminate a leak path or add reactor coolant system inventory when needed, and the finding did not degrade the licensee’s ability to recover decay heat removal once it was lost. This finding has a cross-cutting aspect in the area of human performance associated with the work practices component because the licensee failed to ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported.

Inspection Report# : [2013017](#) (*pdf*)

**Significance:**  Feb 15, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Translate HPSI Pump Design Requirements to Design Documents (Section 40A3.2).**

The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control.” Specifically, the licensee failed to translate HPSI pump design and runout characteristics to design documents such as the Updated Safety Analysis Report or design calculations. On Jun 21, 2013, the licensee completed Engineering Change 59874, which permanently installed flow-limiting orifices in the discharge line of each pump, effectively preventing HPSI runout conditions from occurring in any plant conditions. The licensee has also completed or proposed a broad range of programmatic corrective actions to improve maintenance and knowledge of the plant’s design and license basis.

This finding was more than minor because it adversely impacted the design control 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 inspectors reviewed IMC 0609 Attachment 4, “Initial Characterization of Findings”, Table 3 – SDP Appendix Router. While this issue was identified during a refueling outage, the inspectors determined that the majority of the exposure time for this violation occurred with the reactor at power. As such, the inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, “The Significance Determination Process (SDP) for Findings at-Power,” Appendix A, Exhibit 2, “Mitigating Systems Screening Questions.” The finding required a detailed risk evaluation because the high pressure safety injection system was inoperable for some of the large break loss of coolant accident scenarios (at reactor pressures less than 100 psi). Therefore, a Region IV senior reactor analyst performed a bounding detailed risk evaluation. The change to the core damage frequency was 8E-8/year. The analyst determined that the finding was of very low safety significance. The dominant core damage sequences included loss of coolant accidents where the high and low pressure safety injection systems failed during recirculation. The non-degraded low pressure safety injection system helped to minimize the risk. The inspectors determined there was no cross-cutting aspect associated with this finding because events related to identification of needed procedures and specifications occurred in the 1970’s and are not indicative of current performance. (Section 40A3.2)

Inspection Report# : [2014002](#) (pdf)

**Significance:**  Feb 15, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Maintain Design Control of HPSI Injection Valve (Section 40A3.4)**

The inspectors identified two examples of a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control.” The first example involved the licensee’s failure to establish procedures or technical specifications to accomplish required HPSI injection flow balancing. The second example involved the failure to provide controls or testing to ensure that replacement parts for HPSI injection valves were suitable for the application and were capable of supporting the safety-related functions of the HPSI system. The licensee has since implemented Engineering Change 59874 which included re-throttling of the HPSI loop injection valves. This change was completed on August 20, 2013, restoring the original plant design and overcoming the configuration control errors introduced on three of the eight injection valves. Post-work testing for the completed modification included flow balance testing for the HPSI loop injection lines. The inspectors reviewed the results of this testing and determined that the UFSAR assumptions regarding balanced loop flows are now reflected by plant performance.

This finding was more than minor because it adversely impacted the design control 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 inspectors reviewed IM 0609 Attachment 4, “Initial Characterization of Findings”, Table 3 – SDP Appendix Router. While this issue was identified during a refueling outage, the inspectors determined that the majority of the exposure time for this violation occurred with the reactor at power. As such, the inspectors determined the finding could be evaluated using the SDP in accordance with IM 0609, “The Significance Determination Process (SDP) for Findings at-Power,” Appendix A, Exhibit 2, “Mitigating Systems Screening Questions.” The inspectors answered “yes” to the question of “Does the finding represent a loss of system and/or function?”

The inspectors therefore determined that the finding would require a detailed risk evaluation per IMC 0609 Paragraph 6.0, because the operability of the high pressure safety injection system (both trains) was in question. Therefore, a Region IV senior reactor analyst performed a bounding detailed risk evaluation. The analyst noted that the NRC’s “Standardized Plant Analysis Risk” model included system functional success criteria – See Table 4.2, “System Functional Success Criteria.” The high pressure safety injection system functional success criteria specified: delivery of water to the reactor vessel using one high pressure safety injection pump and at least two out of four intact cold legs. The flow imbalance specified in the functional success criteria was much worse than the actual flow imbalance identified by the finding. Probabilistic risk assessments focus on severe core damage whereas design basis requirements are focused on the potential to exceed emergency core cooling system success criteria and 10 CFR Part 100 limits, which are much more conservative. Since the high pressure safety injection system was capable of meeting

the functional success criteria, there was no quantifiable change to the core damage frequency. The finding was not a significant contributor to the large early release frequency. The analyst determined that the finding was of very low safety significance. The dominant core damage sequences included loss of coolant accidents. However, the high pressure safety injection system remained functional for its probabilistic risk assessment function, which minimized the risk. The inspectors determined there was no cross-cutting aspect associated with this finding because events related to identification of needed procedures and specifications occurred in the 1970's and are not indicative of current performance. Additionally, the errant replacement of parts of three HPSI injection valves occurred between 1993 and 2006, and are also not indicative of current performance. (Section 40A3.4).

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Feb 15, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Request a License Amendment for Required Change to Technical Specifications (Section 40A3.4)**

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests and Experiments," and an associated Green finding, for the licensee's failure to request a license amendment for a facility change that required a change to the technical specifications. This issue is also associated with a Green finding related to the licensee's failure to follow Procedure NOD-QP-3, "10 CFR 50.59 and 10 CFR 72.48 Reviews," and Procedure FCSSG-23, "10 CFR 50.59 Resource Manual," both of which require submittal of a license amendment request prior to making a facility change that requires a change to technical specifications. The licensee initiated CR 2014-01029 on January 23, 2014, to document this violation and track corrective actions.

This performance deficiency was considered to be of more than minor safety significance because it was associated with the procedure quality attribute of the mitigating systems cornerstone and it 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 failure to follow station procedures for the 10 CFR 50.59 process caused the technical specifications to become insufficient to ensure that the limiting conditions for operation will be met. Using Inspection Manual Chapter 0609 Appendix G, Checklist 4, the inspectors determined that the finding did not result in the loss of any accident mitigation capability and did not require a quantitative risk assessment. This finding was determined to be of very low risk significance.

This performance deficiency was also determined to be subject to traditional enforcement because it impeded the regulatory process, in that the failure to submit license amendment and add required surveillance testing was in violation of 10 CFR 50.59(c)(1)(i) and caused the NRC-approved technical specifications to be out of alignment with the safety analysis for the facility. This violation is associated with a finding that has been evaluated by the SDP and communicated with an SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider the regulatory process impact. Thus, although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the associated finding. This violation was determined to be a Severity Level IV violation, because it is consistent with the examples in Paragraph 6.1.d of the NRC Enforcement Policy. The finding had a cross-cutting aspect in the training aspect of the human performance cross-cutting area because the licensee's staff failed to understand and misapplied NRC generic guidance related to discovery of insufficient technical specifications [H.9]. (Section 40A3.4).

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Feb 15, 2014

Identified By: NRC



Item Type: NCV NonCited Violation

**Inadequate 10 CFR 50.59 Screening for Containment Spray Design Change (Section 40A3.8)**

The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" for the licensee's failure to complete a 10 CFR 50.59 screening that met the requirements of NOD-QP-3, "10 CFR 50.59 and 10 CFR 72.48 Reviews," Revision 37. The licensee's staff subsequently re-performed the FC 154A screening form on November 29, 2013, and determined that a 10 CFR 50.59 evaluation was required. The NRC staff reviewed the resulting 10 CFR 50.59 screening and evaluation and determined that they had been properly performed, and that a license amendment request was not required prior to implementation of the activity. The licensee documented this procedural violation in CR 2014-01357 on January 29, 2014.

This performance deficiency was considered to be of more than minor safety significance because it was associated with the design control attribute of the mitigating systems cornerstone and it 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 failure to follow station procedures for the 10 CFR 50.59 process prevented the licensee's staff from evaluating the adverse impacts of the change on the facility. Using Inspection Manual Chapter 0609 Appendix G, Checklist 4, the inspectors determined that the finding did not result in the loss of any accident mitigation capability and did not require a quantitative risk assessment. This finding was determined to be of very low risk significance. The inspectors determined that this finding had a cross-cutting aspect of conservative bias in the human performance area, because the licensee's staff ensured that the proposed design change was safe in order to proceed rather than unsafe to stop [H.14]. (Section 40A3.8).

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Feb 15, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Adequately Design Anchorage for Containment Spray and Raw Water System Pipe Supports**

The inspection team identified several examples of a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the adequacy of the anchorage for several raw water system and containment spray system pipe supports. Specifically the anchorage design was non-conservative with respect to the design basis requirements. The licensee entered these issues into the corrective action program as CR 2013-05304 and performed an operability determination as immediate actions. Long term actions to resolve the errors in the calculations are also implemented by the referenced condition report.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of the containment spray system and raw water system. Using Inspection Manual Chapter 0609, Attachment 4 "Initial Characterization of Findings," and Appendix A "The Significance Determination Process (SDP) for findings at-power," both dated 6/19/12, the inspectors determined performance deficiency affected the mitigating systems cornerstone and screened to Green because the finding affected the design and qualification of a mitigating SSC but remained operable. The inspectors used the at-power SDP because the condition existed since construction and while the plant was predominantly at power. The inspectors determined there was no cross-cutting aspect associated with this finding because the calculations were from the 1980's and therefore were not reflective of current performance. (Section 40A5.1).

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Feb 15, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Adequately Implement Design Requirements for Containment Air Cooler Pipe Supports (Section 40A5.2)**

The NRC identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the failure to ensure the adequacy of the U-bolts for containment air cooler pipe supports VAS-1 and VAS-2. Specifically the U-bolt design was non-conservative with respect to the design basis requirements. The licensee entered these issues into the corrective action program as CR 2013-03722. The licensee revised the calculation to support operability. In addition, the licensee generated engineering change EC59570 to fix the degraded VAS-1 and VAS-2 supports.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of the safety injection tank and valves. Specifically, the one-directional U-bolts for VAS-1 and VAS-2 are not designed to withstand two-directional loading and the condensate drain piping line has the potential to adversely impact the Safety injection tank and valves during a design basis event. The licensee updated calculation FC05918 and provided an operability evaluation to address the degraded condition. The inspectors reviewed the information and did not find any issues. Using Inspection Manual Chapter 0609, Attachment 4 “Initial Characterization of Findings,” and Appendix A “The Significance Determination Process (SDP) for findings at-power,” both dated 6/19/12, the inspectors determined performance deficiency affected the mitigating systems cornerstone and screened to Green because the finding affected the design and qualification of a mitigating SSC but remained operable. The inspectors used the at-power SDP because the condition existed since construction and while the plant was predominantly at power. The inspectors determined there was no cross-cutting aspect associated with this finding because the calculation was from the 1980s, and therefore was not reflective of current performance. (Section 40A5.2).

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Complete all Testing for a Condition Averse to Quality**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Actions,” for the licensee’s failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to fully implement a corrective action from a previous breaker issue, which was to perform current injection testing for the 480 Vac 1B4A bus breakers without the full function test kit. Testing with the full function test kit would not identify if zone select interface jumpers were incorrectly installed. The licensee performed current injection testing without the full functional test kit on the 480 Vac load center main breaker 1B4A and the bus tie breaker BT 1B4A. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-13262.

The licensee’s failure to promptly identify and correct a condition adverse to quality was a performance deficiency. 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 team evaluated the finding using Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” Checklist 4, “PWR Refueling Operation: RCS level >23’ or PWR Shutdown Operation with Time to Boil > 2 hours and Inventory in the Pressurizer,” dated May 25, 2004, and determined that the finding is of very low safety significance (Green) because the finding did not require a quantitative risk assessment because adequate mitigating equipment remained available. The finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee did not ensure that the proposed action was safe in order to proceed, rather than unsafe in order to disapproved the

action.

Inspection Report# : [2013013](#) (pdf)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Furnish Evidence of an Activity Affecting Quality**

The team identified 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 associated with the 480 V breakers. Specifically, the licensee failed to maintain design documents that detailed the correct Digital Low Resistance Ohm (DLRO) values required for ensuring proper connections between the Square D Masterpact NW breaker/cradle assemble to the GE AKD-5, 480 V cubicle stabs. The licensee re-generated acceptance criteria to address this issue. This issue was entered into the licensee’s corrective action program as Condition Report CR 2013-04032.

The licensee’s failure to furnish evidence that showed the required DLRO values ensured proper connections between the Square D Masterpact NW breaker/cradle assemble to the GE AKD-5, 480 V cubicle stabs was a performance deficiency. The performance deficiency was determined to be 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. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. This finding has a cross-cutting aspect in the area of human performance, associated with the resources component, because the licensee failed to maintain complete, accurate, and up-to-date design documentation. Specifically, the licensee did not maintain the engineering process for determining acceptable DLRO values.

Inspection Report# : [2013013](#) (pdf)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Corrective Actions to Prevent Repetition of a Significant Condition Adverse to Quality, a White MSPI SFFF Degrading Trend**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the licensee’s approval of Root Cause Analysis 2013-03424, Revision 0 and Revision 1, “MSPI Safety System Functional Failures Degrading Trend,” which did not assure corrective actions to prevent repetition of a significant condition adverse to quality. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-00584 and 2013-14614.

The licensee’s failure to establish measures to assure that the cause of the degrading trend in MSPI safety system functional failures would be promptly identified and action taken to preclude repetition in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, was a performance deficiency. The performance deficiency was more than

minor, and therefore a finding, because the failure to correct the cause and preclude the repetition of the cause would have the potential to lead to a more significant safety concern. Specifically, failure to identify the correct cause and preclude repetition would lead to a high frequency of safety system functional failures. This finding was associated with the mitigating systems cornerstone. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated July 1, 2012, the finding was determined to be of very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the problem and, consequently, the resolution did not identify the extent of cause as necessary.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Control Deviations From the Design Basis Requirements for Structural Calculations Related to the Reactor Coolant System**

The team identified multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the licensee’s failure to control deviations from design standards. Specifically, the licensee failed to control deviations from the design basis requirements for structural calculations related to the reactor coolant system. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-19878, 2013-18361, 2013-20281, and 2013-14726.

The failure to control deviations from quality standards as required by 10 CFR Part 50, Appendix B, Criterion III, was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. There was no cross cutting aspect assigned to this finding because this issue does not reflect present licensee performance.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Programmatic Failure to Evaluate Safety Impact of Degraded Conditions During Use of Interim Operability Criteria**

The team identified multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings.” Specifically, the licensee’s failure to follow station procedures for corrective actions, operability, and calculation preparation for instances where the interim operability procedure was invoked for degraded conditions identified with piping and pipe supports. As a result, the degraded conditions were untimely and poorly documented. This issue was entered into the licensee’s corrective action program as Condition Report CR 2013-03598.

The failure to provide adequate acceptance criteria for an activity affecting quality was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the human performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated July 1, 2012, and guidance from the Office of Nuclear Reactor Regulation, Division of Engineering technical staff for issues where the inputs to calculations deviated from approved standards, the finding was determined to have very low safety significance (Green) because: (1) the Office of Nuclear Reactor Regulation technical staff provided the team with the following input: “Office of Nuclear Reactor Regulation technical staff didn’t identify gross exceedances that would render the evaluated component as inoperable or unable to perform its safety function”; (2) it 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; and (3) it did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with work practices component because the licensee failed to define and effectively communicate expectations regarding compliance with station procedures.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Correct Overstressed Components**

The team identified multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings.” Specifically, the licensee’s failure to follow station procedures for corrective actions, operability, and calculation preparation for instances where the interim operability procedure was invoked for degraded conditions identified with piping and pipe supports. As a result, the degraded conditions were untimely and poorly documented. This issue was entered into the licensee’s corrective action program as Condition Report CR 2013-03598.

The failure to provide adequate acceptance criteria for an activity affecting quality was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the human performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated July 1, 2012, and guidance from the Office of Nuclear Reactor Regulation, Division of Engineering technical staff for issues where the inputs to calculations deviated from approved standards, the finding was determined to have very low safety significance (Green) because: (1) the Office of Nuclear Reactor Regulation technical staff provided the team with the following input: “Office of Nuclear Reactor Regulation technical staff didn’t identify gross exceedances that would render the evaluated component as inoperable or unable to perform its safety function”; (2) it 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; and (3) it did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in

accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with work practices component because the licensee failed to define and effectively communicate expectations regarding compliance with station procedures.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Non-conservative Criteria in Operability Procedure**

The team identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to develop an adequate procedure for assessing operability of degraded piping and pipe supports. Specifically, Station Procedure PED-MEI-17, "Interim Operability Criteria," a procedure the licensee used to evaluate CQE and L-CQE piping and piping supports that are found to exceed design basis requirements, was inadequate for this application because it did not contain all applicable constraints. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-22342.

The failure to use an adequate procedure for evaluating degraded or nonconforming pipe and pipe supports was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated July 1, 2012, and guidance from the Office of Nuclear Reactor Regulation, Division of Engineering technical staff for issues where the inputs to calculations deviated from approved standards, the finding was determined to have very low safety significance (Green) because: (1) the Office of Nuclear Reactor Regulation technical staff provided the team with the following input: "Office of Nuclear Reactor Regulation technical staff didn't identify gross exceedances that would render the evaluated component as inoperable or unable to perform its safety function;" (2) it 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; and (3) it did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. There was no cross-cutting aspect assigned to this finding because this issue does not reflect present licensee performance.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Operability Procedure**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the licensee's failure to follow Station Procedure NOD-QP-31, "Operability Determination Process." Specifically, Step 4.3.15 required, in part, that, "A positive determination of operability must be justified, including ... a technical discussion of why the concern identified does not prevent the item from fulfilling its intended safety function." However, the team identified that the operability determination associated with a component identified as beyond its specified service life lacked adequate technical justification for why the item was operable with the degraded or nonconforming condition. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-12255.

The failure to properly assess and document the basis for operability when a degraded or nonconforming condition

was identified was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding involving inadequate operability determinations occurred while in a shutdown condition, the team used Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” and determined the finding to have very low safety significance (Green) because the finding: (1) did not increase the likelihood of a loss of reactor coolant system inventory; (2) did not degrade the licensee’s ability to terminate a leak path or add reactor coolant system inventory when needed; and (3) did not degrade the licensee’s ability to recover decay heat removal once it was lost. 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 when performing operability determinations. Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Evaluate the Effects of Modifying the Turbine Driven Auxiliary Feedwater Pump**

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 conduct an adequate evaluation of the impacts of modifying the turbine driven auxiliary feedwater pump (FW 10) during all modes of operation. Specifically, the licensee instituted an engineering change package to modify the pump from a variable speed to a constant speed setting and did not consider the dynamic system changes that could affect the pump operation for all design basis events and operating conditions. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-10465.

The failure to evaluate the effects of modifying the turbine driven auxiliary feedwater pump from a variable speed to a constant speed for all modes of operation was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the configuration control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. 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. Specifically, the licensee did not reanalyze the pump performance parameters to identify any potentially adverse effects of changing the pump to a constant speed control.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform Adequate Operating Experience Reviews**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the licensee’s programmatic failure to conduct adequate operating experience reviews for root cause evaluations in accordance with Station Procedure FCSG-24-4, “Condition Report and Root Cause Evaluation,”

Revision 5. Specifically, during the course of the inspection, the team identified four specific examples where licensee staff failed to conduct a thorough operating experience review while performing a root cause analysis to determine whether the same or similar problems have occurred at Fort Calhoun or within the industry. Therefore, this finding is indicative of a programmatic issue. Thorough operating experience reviews are important for the construction of corrective actions to prevent the issues from recurring and help determine extent of condition and/or generic implications from the issue. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-14205.

The licensee's programmatic failure to conduct adequate operating experience reviews for root cause evaluations was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because if left uncorrected it has the potential to lead to a more significant safety concern. Specifically, if the licensee does not thoroughly evaluate operating experience to determine whether the same or similar problems have occurred at the Fort Calhoun Station or within the industry, then effective corrective actions to prevent the issues from recurring may not be implemented and an adequate extent of condition and/or generic implications from the issue may not be identified. This finding was associated with the Mitigating Systems Cornerstone. Using Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," Checklist 4, "PWR Refueling Operation: RCS level >23' or PWR Shutdown Operation with Time to Boil > 2 hours and Inventory in the Pressurizer," dated May 25, 2004, this finding was determined to be of very low safety significance (Green) because the finding did not require a quantitative risk assessment because adequate mitigating equipment remained available. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the operating experience component because the licensee did not use operating experience information, including vendor recommendations and internally generated lessons learned, to support plant safety by implementing and institutionalizing operating experience through changes to station processes, procedures, equipment, and training programs.

Inspection Report# : [2013013](#) (pdf)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Incorporate Design Requirements for Switchgear Room Cooling**

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 fully incorporate applicable design requirements into the plant design. Specifically, from initial construction until present, the licensee has failed to incorporate a ventilation system for the vital switchgear rooms that was capable of maintaining room temperature below design requirements under all design conditions.

The failure to fully incorporate applicable design requirements was a performance deficiency. The performance deficiency was determined to be 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. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the problem and, consequently, the resolution did not identify the extent of cause as necessary.



Inspection Report# : [2013013](#) (pdf)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Corrective Action for Non-Seismic Category 1 Piping**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s failure to take adequate corrective actions regarding non-Category I (seismic) piping in the intake structure raw water vault. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-04782, 2013-04956, 2013-09256, 2013-10626, and 2013-22090.

The failure to take adequate corrective action regarding non-Category I (seismic) piping in the intake structure raw water vault is a performance deficiency. The performance deficiency is more than minor, and therefore a finding, as it is 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. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” dated July 1, 2012, this finding was determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance 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 decision-making component such that the licensee demonstrates that nuclear safety is an overriding priority. Specifically, that the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action.

Inspection Report# : [2013013](#) (pdf)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Lack of an Adequate Operability Evaluation for Class 1 Raw Water Piping in Non-Class 1 Service Building**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” associated with the licensee’s failure to follow Station Procedure NOD-QP-31, “Operability Determination Process,” to adequately assess and document the basis for operability when a nonconforming condition was identified. Specifically, the licensee did not determine the effect of a ruptured 6” stub in the raw water system with respect to the safety function provided by the raw water system during a design seismic event. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-13410 and 2013-13634.

The failure to adequately assess and document the basis for operability regarding seismic raw water piping potentially interacting with the nonseismic service building is a performance deficiency. The performance deficiency is more than minor, and therefore a finding, as it is associated with the equipment performance 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. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” dated July 1, 2012, this finding was

determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the problem such that the resolutions address causes and extent of conditions. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality.  
Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Operability Determination Due to Failure to Consider an Unavailable Raw Water Pump**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," involving the licensee's failure to follow procedures when evaluating the impact of the removal of the motor for raw water Pump B on the intake cell level control during a potential site flood. Specifically, on June 18, 2013, the operability determination for Corrective Action 018 of Condition Report CR 2011-10302 was not performed in accordance with Station Procedure NOD-QP-31, "Operability Determination Process," Step 4.3.15, and consequently, failed to evaluate the impact of having only two diversely powered available raw water pumps during a site flood on shutdown cooling system operability. This issue has been entered into the corrective action program as Condition Report CR 2013-15270.

The failure to properly assess and document the basis for operability when a degraded or nonconforming condition was identified was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (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 nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with the work control component. Specifically, the team identified that the licensee failed to adequately plan and coordinate work activities, in which, interdepartmental coordination was necessary to assure plant and human performance.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Translate Design Sluice Gate Leakage Into Operating Procedure**

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 correctly translate the acceptance limit of intake sluice gate leakage values into

procedures. Specifically, the acceptance limit from the licensee's testing was applied to 1000 feet of intake level and not to the 983 to 988 feet operating band prescribed in Section I – Flooding, of Station Procedure AOP-01, “Acts of Nature.” This issue has been entered into the corrective action program as Condition Report CR 2013-15287.

The failure to fully incorporate applicable design requirements was a performance deficiency. This performance deficiency is 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 cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” Attachment 1, Checklist 4, “PWR Refueling Operation: RCS level > 23' OR PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer,” dated May 25, 2004, the team determined that because this finding did not increase the likelihood of a loss of reactor coolant system inventory; did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory; and did not degrade the licensee's ability to recover decay heat removal, this finding did not require a Phase 2 or 3 analysis as stated in Checklist 4. Therefore, the finding is determined to have very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Procedure for Intake Cell Level Control During a Flooding Event**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the licensee's failure to maintain an adequate procedure for site flooding. Specifically, since June 2013, the licensee failed to include appropriate quantitative or qualitative acceptance criteria for Section I – Flooding, of Station Procedure AOP-01, “Acts of Nature,” on how to proceed if steps taken to maintain intake cell level less than 988 feet were unsuccessful. This issue has been entered into the corrective action program as Condition Report CR 2013-15289.

The licensee's failure to maintain an adequate procedure for maintaining intake cell level during a flood was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the procedure quality 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. Using Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” Attachment 1, Checklist 4, “PWR Refueling Operation: RCS level > 23' OR PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer,” dated May 25, 2004, the finding is determined to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of reactor coolant system inventory; did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory; and did not degrade the licensee's ability to recover decay heat removal, this finding did not require a Phase 2 or 3 analysis as stated in Checklist 4. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Translate Appendix R License Exemptions into the Plant's Fire Protection Program Design**

The team identified a non-cited violation of License Condition 3.D, "Fire Protection Program," for the failure to translate Appendix R license exemptions into the fire protection program design. Specifically, the licensee failed to translate the exemption from 10 CFR Part 50, Appendix R, Section III.G, that was granted July 3, 1985, for the Intake Structure, Fire Area 31, into a design that met those exemptions. The licensee did not protect the cables for both pumps AC-10A and AC-10B from any credible fire in the intake structure. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-16201.

The failure to translate Appendix R license exemptions into the fire protection program design was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the protection against external factors 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 F, "Fire Protection Significance Determination Process," dated September 20, 2013, Step 1.3, the team determined that the reactor would have been able to reach and maintain cold shutdown, therefore, this finding was determined to have very low safety significance (Green). There was no cross-cutting aspect assigned to this finding because the original license exemption request and grant was over three years ago and this issue does not reflect present licensee performance.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:**  Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Perform Adequate Extent of Condition Reviews**

The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to document the extent of condition review for a number of Root Cause Analyses in accordance with corrective action program procedures. Specifically, during the course of the inspection, the team identified four examples where the licensee did not follow Station Procedure FCSG-24-4, "Condition Report and Cause Evaluation," and, as a result, did not evaluate the extent to which the actual conditions existed with other plant processes, systems, equipment, or human performance related activities. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-18291.

The failure to follow the requirements of Station Procedure FCSG-24-4 when documenting extent of condition reviews in multiple Root Cause Analyses was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because if left uncorrected the failure to perform extent of condition reviews could lead to a more significant safety concern. Specifically, the failure to identify and address additional conditions adverse to quality in the extent of condition review has the potential to lead to a failure to recognize potentially inoperable safety-related equipment in a timely manner. This finding was associated with the Mitigating Systems Cornerstone. Using Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," Checklist 4, "PWR Refueling Operation: RCS level >23' or PWR Shutdown Operation with Time to Boil > 2 hours and Inventory in the Pressurizer," dated May 25, 2004, the team determined that this finding was of very low safety significance (Green) because the finding did not require a quantitative risk assessment because adequate mitigating equipment remained available. The team determined this finding had a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate problems such that the resolutions address the causes.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:** N/A Apr 15, 2013

Identified By: NRC

Item Type: VIO Violation

**Failure to Promptly Identify and Correct a Condition Adverse to Quality**

The team identified a violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Actions,” associated with the licensee’s failure to promptly identify and correct a condition adverse to quality. Specifically, from 1991 to present, the licensee failed to properly evaluate a 4160 Vac/480 Vac transformer fault or a 480 Vac load center bus fault and the potential effect on system operability. This issue has been entered into the corrective action program as Condition Report CR 2013-05631. This finding is related to the Red finding issued on April 10, 2012, regarding a significant internal fire event in the 480 Vac safety-related switchgear.

The performance deficiency is more than minor, and therefore a finding, because it was associated with both the design control and protection against external factors 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 significance of this finding is bounded by the significance of a related Red finding regarding a fire in the 480 Vac safety-related switchgear in June 2011 (NRC Inspection Report 05000285/2012010). The team determined that although the performance deficiency occurred in 1991, this finding is indicative of current plant performance because the performance characteristic has not been corrected or eliminated. Specifically, the licensee continued to display the same behaviors with regard to decision-making. Therefore, 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# : [2013008](#) (*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, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Correct Deficiencies in Operations Support Center Functions**

A Green noncited violation was identified for the failure of the licensee to correct deficiencies identified as a result of four exercises conducted between March 27, 2012, and May 7, 2013, as required by 10 CFR 50.47(b)(14).

Specifically, the licensee failed to correct deficiencies associated with team briefing and tracking in the Operations Support Center (OSC) identified as a result of exercises conducted March 27, 2012; July 17, 2012; March 5, 2013; and May 7, 2013.

The inspectors determined that the licensee's failure to correct deficiencies identified by licensee evaluators is a performance deficiency within the licensee's control. This finding is more than minor because it affected the emergency preparedness cornerstone objective and the Emergency Response Organization Performance cornerstone attribute. This finding was evaluated using the Emergency Preparedness Significance Determination Process and was determined to be of very low safety significance because it was a failure to comply with NRC requirements, was not a risk significant planning standard function, and was not a loss of planning standard function. The finding was not a loss of planning standard function because the licensee adequately corrected some deficiencies identified in exercises conducted in 2012 and 2013. The finding was entered into the licensee's corrective action system as Condition Report 2013-22495. The finding was assigned a cross-cutting aspect of Problem Identification and Resolution because the finding was reflective of current performance and the licensee did not take appropriate corrective action to address safety issues and adverse trends [P.1(d)]. (Section 1EP1).

Inspection Report# : [2013019](#) (*pdf*)

---

## Occupational Radiation Safety

**Significance:**  Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited 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 [H.4]. (Section 2RS1).

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:**  Mar 14, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Obtain Prior NRC Approval for a Change in Method of Evaluation**

The team identified three examples of a non-cited violation of 10 CFR 50.59, “Changes, Test, and Experiments,” associated with the licensee’s failure to adequately evaluate changes to determine if prior NRC approval is required. Specifically, from April 19, 2011, through August 17, 2012, the licensee failed to obtain a license amendment pursuant to Section 50.90 prior to implementing a proposed change, test, or experiment if the change, test, or experiment would result in a departure from a method of evaluation described in the Updated Safety Analysis Report. The licensee addressed these issues by submitting a license amendment which was reviewed and approved by the NRC. This issue has been entered into the licensee’s corrective action program as Condition Reports CR 2013-03839, 2013-04266, 2013-05210, 2013-14363, and 2013-14665.

The licensee’s failure to implement the requirements of 10 CFR 50.59 and adequately evaluate changes to requirements for tornado missile protection described in the Updated Safety Analysis Report was a performance deficiency. Because this performance deficiency had the potential to impact the NRC’s ability to perform its regulatory function, the team 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. Using Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” the finding was determined to have 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 nontechnical specification trains of equipment designated as high safety-significance 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. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, the team characterized this performance deficiency as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to adequately evaluate changes in accordance with 10 CFR 50.59 was strictly associated with a traditional enforcement violation.

Inspection Report# : [2013017](#) (*pdf*)

**Significance:** N/A Feb 15, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Make Required 10 CFR 50.46 Report Within Required Time (Section 40A3.2)**

The inspectors identified a SLIV non-cited violation of 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," for the licensee's failure to submit a report within 30 days of discovery of a significant change in the application of the ECCS model that affected the peak cladding temperature. The licensee submitted the required 10 CFR 50.46 report September 20, 2013 (ML13266A108). This report was subsequently reviewed by the NRC staff date October 2, 2013, and determined to be acceptable. The NRC staff determined that while the configuration change to the HPSI system resulted in a significantly higher peak cladding temperature, it is within the regulatory requirements of 10 CFR 50.46(b)(1). The licensee initiated CR-2014-00674 on January 16, 2014. The licensee initiated CR 2014-01356 on January 29, 2014 to document the fact that Procedure SO-R-1 refers to the unendorsed NEI guidance.

This performance deficiency was determined to be subject to traditional enforcement because it impeded the regulatory process, in that the failure to submit a timely report of significant ECCS analytical changes prevented the NRC technical staff from independently evaluating the potential safety implications of reductions in safety injection flow into the reactor during an accident. This violation was determined to be a Severity Level IV violation, because it is consistent with the examples in Paragraph 6.9.d of the NRC Enforcement Policy. Because this violation is subject to traditional enforcement, no cross-cutting aspects have been assigned. (Section 40A3.2)

Inspection Report# : [2014002](#) (*pdf*)

**Significance:** N/A Feb 15, 2014

Identified By: NRC

Item Type: VIO Violation

**Untimely Submittal of Required Licensee Event Reports (Section 40A3.4)**

The inspectors identified two examples of a cited Severity Level IV violation of 10 CFR 50.73, "Immediate Notification Requirements for Operating Nuclear Power Reactors," for the licensee's failure to submit a required licensee event report within 60 days following discovery of an event requiring a report. In the first example, LER 2013-010-0 was sent on July 2, 2013, seventy-nine days after the flow imbalance was observed by the licensee's staff. In the second example, LER 2013-017-0 was submitted to the NRC on December 27, 2013, 62 days after the event date on the licensee's reportability evaluation and sixty-six days after a condition report documented the reportable condition. The licensee initiated CR 2014-01358 on January 29, 2014 to document this repetitive violation. The violation was evaluated using Section 2.2.4 of the NRC Enforcement Policy, because the failure to submit a required LER 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(d)(9) of the NRC Enforcement Policy, this violation was determined to be a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to make a required report was strictly



associated with a traditional enforcement violation. (Section 40A3.4).

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Feb 15, 2014

Identified By: NRC

Item Type: VIO Violation

**Failure to Restore Compliance for Containment Spray Runout Conditions (Section 40A3.8)**

The inspectors identified a cited Green violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s failure to take timely corrective action for a condition adverse to quality. Specifically, the inspectors noted that the licensee failed to restore compliance following NRC identification the licensee’s failure to correct a runout condition in the containment spray system in NCV 05000285/2008003-05 in August 2008. Corrective actions taken included completion of an analysis of containment spray pump operation in an MSLB event; revision of CS design documentation; analysis of motor performance by electrical vendor; and completion of a temporary modification which throttles the CS pump discharge valves to provide additional system resistance and prevent runout. The action to change the system resistance was completed on November 24, 2013, which put the station back into compliance by correcting the condition adverse to quality originally identified by NRC in NCV 2008003-05. Future corrective actions will include a permanent design change to prevent CS pump runout. The licensee initiated CR 2014-02242 on February 19, 2014 to document this failure to restore compliance.

This finding was more than minor because it adversely impacted the SSC and barrier performance attribute of the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events. The inspectors reviewed IMC 0609 Attachment 4, “Initial Characterization of Findings”, Table 3 – SDP Appendix Router. While this issue was identified during a refueling outage, the inspectors determined that the majority of the exposure time for this violation occurred with the reactor at power. As such, the inspectors determined the finding could be evaluated using the Significance Determination Process in accordance with IMC 0609, “The Significance Determination Process (SDP) for Findings at-Power,” Appendix A, Exhibit 3, “Barrier Integrity Screening Questions.” The inspectors determined that the finding did not represent an actual open pathway in containment or containment isolation logic, nor did the finding represent an actual reduction in the function of containment hydrogen igniters. Based on the guidance in the Exhibit 3 checklist the inspectors determined that the finding was of very low safety significance. The inspectors determined that finding had a cross-cutting aspect of avoiding complacency in the human performance area, because the licensee’s staff failed to recognize latent issues even while expecting successful outcomes [H.12]. (Section 40A3.8)

Inspection Report# : [2014002](#) (*pdf*)

**Significance:** N/A Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Evaluate Changes to Ensure They Did Not Require Prior Approval**

The team identified a non-cited violation of 10 CFR 50.59, “Changes, Tests, and Experiments,” associated with the licensee’s failure to adequately evaluate modification EC 33464, “Replace AK 50 480 V Main and Bus-Tie Breakers With Molded Case Type or Equivalent,” to determine if it required prior NRC approval. Specifically, the licensee’s documented evaluation failed to identify and evaluate new creditable failure modes to determine whether they would have an adverse effect on the 480 Vac electrical distribution system. This issue was entered into the licensee’s corrective action program as Condition Reports CR 2013-04474 and 2013-16954.

The licensee’s failure to implement the requirements of 10 CFR 50.59 and adequately evaluate changes associated with the electrical distribution system was a performance deficiency. Because this performance deficiency had the

potential to impact the NRC's ability to perform its regulatory function, the team 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. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the finding is determined to have 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 nontechnical specification trains of equipment designated as high safety-significance 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. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, the team characterized this performance deficiency as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to adequately evaluate changes in accordance with 10 CFR 50.59 was strictly associated with a traditional enforcement violation.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:** N/A Jul 19, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Submit Licensee Event Report**

The team identified three examples of a Severity Level IV non cited violation of 10 CFR 50.73, "Immediate Notification Requirements for Operating Nuclear Power Reactors," associated with the licensee's failure to submit a licensee event report within 60 days following a discovery of an event meeting the reportability criteria as specified. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-2863 and 2012-03796.

The team determined that the failure to make a required Licensee Event Report was a violation of 10 CFR 50.73. The 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 team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to make a required report was strictly associated with a traditional enforcement violation.

Inspection Report# : [2013013](#) (*pdf*)

**Significance:** N/A Jul 19, 2013

Identified By: NRC

Item Type: VIO Violation

**Failure to Provide Complete and Accurate Information to the NRC**

The team identified a cited Severity Level IV violation of 10 CFR 50.9, "Complete and Accurate Information," and an associated reactor oversight program finding (NCV 05000285/2013013-19, "Failure to Translate Appendix R License Exemptions into the Plants Fire Protection Program Design"), for the licensee's failure to provide information to the Commission that was complete and accurate in all material respects. Specifically, when responding to a request for additional information, the licensee supplied incorrect information to the NRC and this information was subsequently used by the NRC to support a license amendment for the station. This issue was entered into the station's corrective action program as Condition Report CR 2013-15021.

The failure to provide the NRC with complete and accurate information when responding to a request for additional information was a performance deficiency. Using Inspection Manual Chapter 0612, Appendix B, "Issue Screening," Figure 1, dated September 7, 2012, the team determined that the failure to provide complete and accurate information was a performance deficiency that required evaluation under both traditional enforcement and the reactor oversight program. The performance deficiency was determined to be more than minor because: (1) the information was considered material to the NRC's decision making process; and (2) it affected the equipment performance attribute of the Mitigating Systems Cornerstone with regard to availability, reliability, and capability of the raw water pumps to perform their safety function during a fire in the intake structure. Using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," the team determined the finding to have very low safety significance (Green) because it only affected the ability to reach and maintain cold shutdown conditions. Under the traditional enforcement review, the team determined that in accordance with Section 6.9.c.1 of the NRC Enforcement Policy, this finding represented a Severity Level III violation. Specifically, the team determined that if this information had been completely and accurately provided, it would likely have caused the NRC to undertake a substantial further inquiry. The NRC takes the issue of complete and accurate license submittals very seriously. For this reason, the NRC considered citing this as a Severity Level III violation, as discussed in the Enforcement Policy, as the NRC had approved a licensing action based on the incorrect information. However, after consideration by NRC management, and with the approval of the Director of the Office of Enforcement, it was determined that a Severity Level IV, cited violation was appropriate. This decision was based on the very low safety significance (Green) of the associated reactor oversight program finding (05000285/2013013-19). There was no cross-cutting aspect assigned to this finding because the inaccurate information was provided over three years ago and this issue does not reflect present licensee performance.

Inspection Report# : [2013013](#) (*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 : August 29, 2014