Fort Calhoun
1Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Dec 11, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Revise Procedures and Perform Additional Training
Green. The team evaluated a self-revealing NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions", which states, in part, that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies… are promptly identified and corrected." Specifically, prior to September 30, 2015, the licensee failed to revise procedures, and perform additional operator training, to prevent the inadvertent opening of steam bypass and steam dump valves during plant startup, and any subsequent plant impacts. In response to this issue, the licensee initiated a condition report to document these corrective actions. This finding was entered into the licensee's corrective action program as Condition Report CR FCS 2015 13718.

The team determined that the failure to take timely corrective actions to revise procedures and complete additional training to correct a condition adverse to quality, was a performance deficiency. This finding was more than minor because it was associated with the initiating events cornerstone objective of configuration control to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the licensee failed to take recommended corrective actions to revise procedures and perform additional operator training to ensure proper alignment of the steam dump and bypass valves controller during startup. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined that the finding was determined to have very low safety significance (Green) since the transient did not result in a reactor trip or loss of mitigation equipment. The finding has a problem identification and resolution cross-cutting aspect in the area of "Operating Experience," because the licensee failed to systematically and effectively collect, evaluate, and implement relevant internal operating experience in a timely manner [P.5].
Inspection Report# : 2015009 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Include a Class 1 Component in the Reactor Vessel Pressure Boundary Integrity Test
The inspectors identified a non-cited violation of 10 CFR 50.55a(g)(4), involving the failure to adequately perform periodic reactor coolant system (RCS) integrity inspections as required by ASME Code Section XI. Specifically, Procedure OP ST RC 3007, "Periodic Reactor Coolant System Integrity Test," required testing of all ASME Class 1 pressure boundary components of the reactor vessel pressure boundary but failed to include reactor vessel head vent line RC-2501R. As a result, the requirements of ASME Code, Section XI were not met. This issue was entered into the licensee's corrective action program as Condition Report 2015-05858.
The inspectors concluded that the failure to include all Class 1 systems within the reactor vessel pressure boundary in the periodic RCS integrity inspection was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the procedure quality attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and

challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, "Initiating Events Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not result in exceeding the RCS leak rate for a small loss of coolant accident, and did not affect other systems used to mitigate a loss of coolant accident resulting in a total loss of their function. The inspectors determined that the finding had a conservative bias cross-cutting aspect in the area of human performance because the licensee failed to use decision making-practices that emphasized prudent choices over those that are simply allowable.

Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish Adequate Work Instructions to Clean and Inspect the Reactor Vessel Head
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to establish adequate work instructions to clean and inspect the reactor vessel head. Specifically, the work instructions for the required visual examination of the reactor vessel head failed to specify what constituted a relevant condition as defined by ASME Code Case N 729 1, "Alternative Examination Requirements for PWR Reactor Vessel Upper Head with Nozzles Having Pressure Retaining Partial Penetration Welds." As a result, the licensee failed to identify several relevant conditions that required additional inspections to adequately assure that the structural integrity of the reactor vessel head was not compromised. This issue was entered into the licensee's corrective action program as Condition Report 2015-05995.
The failure to establish adequate work instructions to clean and inspect the reactor vessel head was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the procedure quality attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, "Initiating Events Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not result in exceeding the RCS leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. The inspectors determined that the finding had a teamwork cross-cutting aspect in the area of human performance because individuals and work groups failed to communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained.

Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Incorporate Vendor Manual Recommendations for Conducting Preventative Maintenance on the Reactor Vessel Head Vent Valve
The inspectors identified a non-cited violation of Technical Specification 5.8.1.a associated with the failure to establish a preventative maintenance schedule for the reactor vessel head vent manual isolation valve, RC-100. Specifically, engineering personnel failed to consider vendor recommended maintenance activities/schedules, and determined that the valve could be run to failure. As a result, when the valve packing failed during operation, boric acid leaked onto the reactor vessel head. The licensee replaced the valve internals during refueling outage RFO 27 under Work Order 551054. This issue was entered into the licensee's corrective action program as Condition Report 2015-05432.
The failure of engineering personnel to establish a preventative maintenance schedule for the reactor vessel head vent

manual isolation valve was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the equipment performance attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, "Initiating Events Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not result in exceeding the RCS leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. No cross-cutting aspect was assigned because the inspectors determined that the finding was not indicative of current performance.

Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify and Correct Loose Incore Instrument Nozzle Connection
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to identify and correct a condition adverse to quality. Specifically, maintenance personnel failed to document a loose connection on incore instrument port 44 in the corrective action program. As a result, the connection was not tightened and boric acid leaked onto the reactor vessel head during operation. This issue was entered into the licensee's corrective action program as Condition Report 2015-05864.
The failure of maintenance personnel to document a loose connection on incore instrument port 44 in the corrective action program was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the equipment performance attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, "Initiating Events Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not result in exceeding the RCS leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. The inspectors determined that the finding had a field presence cross-cutting aspect in the area of human performance because the licensee did not ensure supervisory and management oversight of work activities, including contractors and supplemental personnel.
Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Implementing a Procedure Change for Alternative Shutdown Cooling that would have Required NRC Approval
The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," for the failure to recognize that a change to the facility as described in the Updated Safety Analysis Report would require prior NRC review and approval. Specifically, the 10 CFR 50.59 evaluation revised a site procedure, without NRC approval, to substitute automatic flow control of shutdown cooling flow and temperature with manual control using the low pressure safety injection loop injection valves. The licensee's corrective actions

included revising the affected procedure to reflect the original automatic flow control. The licensee entered this issue in the corrective action program as Condition Report 2013-15342.

The licensee's failure to implement the requirements of 10 CFR 50.59 and adequately evaluate changes to determine if prior NRC approval is required was a performance deficiency. Because this violation had the potential to impact the NRC's ability to perform its regulatory function, the inspectors evaluated the violation using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the team evaluated this finding using the significance determination process to assess its significance. The inspectors performed an initial screening of the finding in accordance with NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated July 1, 2012. Using Inspection Manual Chapter 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," 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 or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's Maintenance Rule program. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, the inspectors characterized this performance deficiency as a Severity Level IV violation. The inspectors determined that a cross-cutting aspect was not applicable because the issue involving the failure to perform an adequate 10 CFR 50.59 evaluation was strictly associated with a traditional enforcement violation.
Inspection Report# : 2016001 *(pdf)*

Significance: G Dec 11, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Take Adequate Corrective Action to Preclude Repetition of a Significant Condition Adverse to Quality Associated with Emergency Diesel Generator Room Water Intrusions
Green. The team identified an NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to take corrective actions to prevent repetition of a significant condition adverse to quality. Specifically, since February 2009, the licensee failed to take corrective actions to prevent repetitive water intrusions from the Auxiliary Building HVAC room (Room 82) into the number one Emergency Diesel Generator room (Room 63).

The inspectors determined that the licensee's failure to implement corrective actions to preclude repetitive water intrusions into Room 63 was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external factors attribute of the mitigating systems cornerstone. Specifically, water intrusion events from Room 82 into Room 63 could challenge the reliability of the emergency diesel generator when relied upon during a loss of offsite power. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Question," inspectors determined that the finding was of very low safety significance (Green). The finding has a problem identification and resolution cross-cutting aspect within the area of "Resolution," because the licensee did not take effective corrective actions to address issues in a timely manner commensurate with their safety significance [P.3].

Inspection Report# : 2015009 *(pdf)*

Significance: G Nov 06, 2015
Identified By: NRC

Item Type: NCV Non-Cited Violation
Failure to Adequately Implement and Maintain Required NFPA 805 Implementation Items
• Green. The inspectors identified two examples of a non-cited violation of License Condition 3.D, "Fire Protection Program," for the failure to adequately implement required National Fire Protection Association Standard 805 implementation items in accordance with the approved fire protection program. Specifically, the licensee did not implement two items listed in Table S-3, "Implementation Items," of Omaha Public Power District letter LIC-14-0042 by June 15, 2015. There was no immediate safety concern with either example and the licensee entered this violation into the corrective action program as Condition Reports 2015-2620 and 2015-2683.

The failure to implement a requirement of a license condition within the allowed implementation period was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," and determined that the issue was of very low safety significance (Green). These findings had a cross-cutting aspect associated with change management within the human performance area since the leaders failed to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, the inspectors determined that the licensee did not have a process in place to ensure system level design basis documents were updated within the period required by a license condition and to assure plant-specific requirements were incorporated into the appropriate procedures (H.3). (Section 1R05.01.b)

Inspection Report# : 2015012 *(pdf)*

Significance: G Nov 06, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Provide Adequate Isolation for Pressurizer Heaters
• Green. The inspectors identified a non-cited violation of License Condition 3.D, "Fire Protection Program," for the failure to ensure one success path necessary to achieve and maintain the nuclear safety performance criteria was maintained free of fire damage for all single fires. Specifically, the licensee failed to provide adequate isolation for the pressurizer heaters credited for achieving safe and stable plant conditions for fires that require shutdown from outside the control room. The licensee entered this issue into their corrective action program as Condition Report 2015-12195 and added this issue to their compensatory measures for the control room and cable spreading room.

The failure to provide adequate isolation for equipment relied upon to achieve safe and stable plant conditions for a shutdown from outside of the control room was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process." Because the finding affected the ability to reach and maintain safe shutdown conditions in case of a fire requiring evacuation of the control room, a senior reactor analyst performed a Phase 3 evaluation and determined that the issue was of very low safety significance (Green). This finding did not have a cross-cutting aspect since it was not indicative of present performance in that the performance deficiency occurred more than three years ago.
Inspection Report# : 2015012 *(pdf)*

Significance: G Nov 06, 2015
Identified By: NRC

Item Type: NCV Non-Cited Violation
Failure to Set Action Levels to Ensure that the Assumptions in the Engineering Analysis Remain Valid
• Green. The inspectors identified a non-cited violation of License Condition 3.D, "Fire Protection Program," for the failure to establish an appropriate monitoring program in accordance with National Fire Protection Association Standard 805, Section 2.6. Specifically, the licensee failed to set the action level for the availability of the raw water system pumps to ensure that the assumptions in the engineering analysis remained valid. There was no immediate safety concern since the raw water pumps availability remained above the value assumed in the analysis and the licensee entered this violation into the corrective action program as Condition Report 2015 12612.

The failure to set the action level for the availability of the raw water system pumps to ensure that the assumptions in the engineering analysis remained valid was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," and determined that the issue was of very low safety significance (Green). This finding had a cross-cutting aspect associated with change management within the human performance area since the leaders failed to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, the inspectors determined that the licensee did not use the process that was in place to ensure that the appropriate fire risk assessment monitoring action levels were incorporated into the maintenance rule program and monitored (H.3)

Inspection Report# : 2015012 *(pdf)*

Significance:  Sep 30, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Maintain Safety Injection Tank Boron Concentration within Technical Specification Limits
A Green, self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI "Corrective Action" was identified because the licensee failed to identify and evaluate an adverse trend related to boron concentration in Safety Injection Tank (SIT) SI-6A and to take corrective actions to prevent boron concentration from going below the minimum concentration required by Technical Specifications. The licensee's immediate corrective actions included documenting this condition in their corrective action program in Condition Report (CR) 2015-10181, declared SI-6A inoperable, and raised SI-6A boron concentration.
The finding is more than minor because it adversely affected the equipment performance attribute of the mitigating systems cornerstone, in that this finding resulted in the SIT becoming inoperable when boron concentration fell below TS limits for approximately 8.5 days prior to August 20, 2015. Analysis conducted by a Senior Reactor Analyst determined the finding to be of very low safety significance (Green), primarily because the SIT function is needed only for mitigation of a postulated large-break loss of coolant accident, and the initiating-event frequency for such accidents is 2.5 x 10-6/year. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution and the Evaluation aspect, because the licensee did not thoroughly evaluate the issue and ensure that resolutions addressed causes and extent of conditions commensurate with their safety significance.

Inspection Report# : 2015003 *(pdf)*

Significance:  Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Maintain Fire Watch and Fire Watch Logs
Inspectors identified a Green, Severity Level IV, non-cited violation of 10 CFR 50.9(a), "Completeness and Accuracy

of Information," for the licensees failure to maintain the required fire watch logs complete and accurate in all material respects. The licensee entered this into their corrective action program as Condition Reports (CR) 2014-06416 and 2014-06680.
This finding is more than minor because it adversely affected the human performance 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. This finding has very low safety significance (Green) because it did not impact the ability to achieve safe shutdown. This finding's severity level is based on an example in the Enforcement Policy, Section 6.1.d.2, which states, in part, that Severity Level IV violations involve violations of 10 CFR 50.59 [which] result in conditions evaluated as having very low safety significance (i.e., Green) by the Significance Determination Process. That example applies because a violation of 10 CFR 50.9 is similar to a violation of 10 CFR 50.59, and because this finding has very low safety significance. This finding has a cross-cutting aspect in the resources component of human performance cross-cutting area because the licensee's process did not allow enough time for the fire watch personnel to obtain their radiation work permit at the start of their shift before they performed their rounds.
Inspection Report# : 2015003 *(pdf)*

Significance: G Aug 14, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Ensure the Suitability of Replacement Materials during the Design Review Process
The inspectors reviewed a Green, self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to evaluate the suitability of materials utilized during the design review process. Specifically, the licensee failed to identify during the design review process that replacement valve internal seal materials for the steam generator auxiliary feed containment isolation valves would not be suitable for high temperature conditions that the valves would experience in service, and as a result, caused both trains of the safety-related auxiliary feedwater system to become inoperable during hot standby conditions. The licensee entered this issue into their corrective action program as Condition Report CR-2015-07564 and replaced the valve internals with material that had been previously installed in valves HCV-1107A and HCV-1108A before the modification.
The inspectors determined that the licensee's failure to evaluate the suitability of the materials used during the design review process for the steam generator auxiliary feed containment isolation valves was a performance deficiency. The 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 adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the licensee's failure to properly evaluate the suitability of CTFE for use in the steam generator auxiliary feed containment isolation valves led to the failure of HCV-1107A and HCV-1108A and rendered both safety-related trains of auxiliary feedwater inoperable. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At-Power", dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions", the inspectors determined that the finding required a detailed risk evaluation since the finding represented a loss of system and/or function. A Region IV senior reactor analyst performed the detailed risk evaluation in accordance with Appendix A, Section 6.0, "Detailed Risk Evaluation." The detailed risk evaluation result is a finding of very low safety significance (Green). The calculated change in core damage frequency of 2.3 x 10-7 was dominated by a loss of offsite power; common cause failure of the auxiliary feedwater discharge air-operated valves; failure of diesel-driven auxiliary feedwater pump

FW-54; failure of the feed and bleed operation; and failure of operators to manually override a steam generator isolation signal and establish a flowpath for the main feedwater system. The analyst determined that the finding did not involve a significant impact to external
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initiators because of the short exposure time, or a significant increase in the risk of a large, early release of radiation. The finding has an operating experience cross-cutting aspect in the problem identification and resolution cross-cutting area since the organization did not systematically and effectively collect, evaluate, and implement relevant internal and external operating experience in a timely manner. Specifically, readily available internal operating experience on the high temperature conditions that valves HCV-1107A and HCV-1108A experienced during normal operations was not utilized during the design change process.
Inspection Report# : 2015011 *(pdf)*

Significance: G Aug 14, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish a Technical Basis for Operability of the Auxiliary Feedwater System
The inspectors identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the licensee’s failure to follow the operability determination procedure. Specifically, the licensee failed to establish a valid technical basis for operability of auxiliary feed containment isolation valves HCV-1107A and HCV-1108A. Following the valves’ failure on June 5, the licensee replaced the failed valve elastomers with new PTFE seals and nitrile O-rings. The licensee then performed an operability evaluation that considered the effect of high temperatures from a main steam line break on the valve elastomers. The inspectors found that the evaluation was not sufficient because it did not determine that the new O-rings would function under all potential temperature conditions and did not consider the function of the other valve components. The licensee entered these issues in their corrective action program as Condition Report CR-2015-08362 and revised their operability evaluation.
The licensee’s failure to follow the operability determination procedure was a performance deficiency. The 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 adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the licensee failed to sufficiently address the capability of the steam generator auxiliary feed containment isolation valves HCV-1107A and HCV-1108A to perform their safety function, requiring significant further analysis to demonstrate operability. Using Inspection Manual Chapter 0609, Attachment 04, “Initial Characterization of Findings,” and Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” the finding was determined to be of very low safety significance (Green) because although the finding was a deficiency affecting design or qualification, but the mitigating structure, system or component maintained its operability. The finding has a consistent process cross-cutting aspect in the human performance cross-cutting area since the organization did not use a consistent, systematic approach to make decisions and incorporate risk insights appropriately. Specifically, the licensee failed to re-evaluate the operability decision when new information on the conditions and susceptibility affecting valves HCV-1107A and HCV-1108A during normal operations was available.
Inspection Report# : 2015011 *(pdf)*

Significance: G Aug 14, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Correct a Non-Conforming Condition Associated with Auxiliary Feedwater Valves
The inspectors identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to correct a condition adverse to quality. Specifically, the licensee failed to take corrective actions after identifying that the steam generator auxiliary feed containment isolation valves were not rated for the maximum temperature they would experience in service. The inspectors determined that on February 2, 2015, an NRC inspector questioned the licensee whether valves HCV-1107A and HCV-1108A were adequately designed for containment temperatures. The licensee determined that the design specification for the valves was 180°F, and the containment temperature following a main steam line break was evaluated to be 374°F. The fact that the
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valve was not designed for the most limiting conditions was a non-conforming condition of a safety related component, and was a condition adverse to quality. However, the licensee did not initiate a condition report to resolve and correct the condition. Additionally, the inspectors determined that in 2002, the licensee initiated Condition Report CR-2002-02124 after identifying elevated temperatures in the auxiliary feedwater piping. This condition report documented that the design specification for the two valves was 180°F and had been exceeded in service. Although the condition report description recommended modifying the design of the valves, the licensee did not take actions to correct the condition. In both of these instances, the licensee recognized that the valve design temperature was not adequate for its application, but did not take action to resolve the discrepancy. The inspectors determined that although the inadequate design was a non-conforming condition, the valves were not inoperable until the licensee installed inappropriate elastomer material during the 2015 refueling outage as a result of inadequate design control. The licensee entered the failure to identify and correct the non-conforming design in their corrective action program as Condition Report CR-2015-08523.
The licensee's failure to take corrective action for a non-conforming condition was a performance deficiency. The 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 adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the licensee failed to take corrective actions to ensure an adequate design for the steam generator auxiliary feed containment isolation valves HCV-1107A and HCV-1108A. Using Inspection Manual Chapter 0609, Attachment 04, "Initial Characterization of Findings," and Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," the finding was determined to be of very low safety significance (Green) because although the finding was a deficiency affecting the design or qualification of a mitigating system, structure, or component, the system, structure, or component maintained its operability. The finding has a basis for decisions cross-cutting aspect in the human performance cross-cutting area since leaders and individuals did not verify their understanding or question the basis of decisions. Specifically, the licensee failed to understand the potential significance of the non-conforming design of the valves and the basis for not taking corrective actions.
Inspection Report# : 2015011 *(pdf)*

Significance: G Jun 30, 2015

Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Follow Instructions and Procedures Related to Snubber Activities
The inspectors identified a non-cited violation of very low safety significance of 10 CFR 50, Appendix B, Criterion V "Instructions, Procedures, and Drawings," because activities affecting quality were not accomplished in accordance with instructions and procedures established by the licensee. Specifically, the licensee failed to document a degraded condition associated with a safety related seismic snubber affecting the auxiliary feedwater system, did not notify operations of the degraded condition, and did not assess the risk of the inoperable snubber in accordance with licensee instructions and procedures. The licensee entered this violation into their corrective action program. Immediate actions taken to address this violation included a review of all other snubber inspections that were rejected to ensure that other degraded conditions were reported to the control room, a review of all planned snubber maintenance with respect to online risk, and the issuance of interim guidance to all Shift Managers on the subject of snubber operability and risk.
The inspectors determined that the licensee's failure to follow instructions and procedures associated with safety related snubbers was a performance deficiency. The finding is more than minor because if left uncorrected, the performance deficiency could have led to a more significant safety concern. Specifically, the failure to follow instructions and procedures associated with safety related snubbers could result in unacceptable risk configurations that are not analyzed under technical specifications and could challenge the reliability of safety related equipment during a seismic event. Using NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power", Exhibit 2 "Mitigating System Screening Questions" Part B, dated July 1, 2012, the inspectors determined the finding to be of very low safety significance (Green) since the finding did not result in the loss of equipment specifically designed to mitigate a seismic initiating event. The finding has a cross-cutting aspect in the area of Human Performance, the Work Management aspect, since the licensee did not implement a work process that ensured the identification and management of risk commensurate to the work.
Inspection Report# : 2015002 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform a Valid 40-Month Inservice Test
The inspectors identified a non-cited violation of 10 CFR 50.55a(g)(4) for the failure to perform a valid 40-month inservice test of the spent fuel pool cooling system. Specifically, the licensee failed to identify an existing through-wall leak on discharge header vent valve AC-898 that invalidated the test. The licensee replaced vent valve AC-898 and repaired the affected weld in April 2015. This issue was entered into the licensee's corrective action program as Condition Report 2015-05038.
The failure to perform a valid 40-month inservice test of the spent fuel pool cooling system was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At Power," Exhibit 3, "Barrier Integrity Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not adversely affect decay heat removal capabilities from the spent fuel pool causing the pool temperature to exceed the maximum analyzed temperature limit specified in the site specific licensing basis, did not result from fuel handling errors, dropped fuel assembly, dropped storage cask, or crane operations over the SFP that caused mechanical damage to fuel clad and a detectible release of radionuclides,

did not result in a loss of spent fuel pool water inventory decreasing below the minimum analyzed level limit specified in the site specific licensing basis, and did not affect the SFP neutron absorber, fuel bundle misplacement or soluble boron concentration. The inspectors determined that the finding had a conservative bias cross-cutting aspect in the area of human performance because individuals failed to use decision making-practices that emphasized prudent choices over those that are simply allowable. Although the licensee had previously identified the leak in valve AC-898 and determined that the leak had compromised the structural integrity of the system, the licensee failed to fix the leak.
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Promptly Identify and Correct a Condition Adverse to Quality Involving a Spent Fuel Pool Cooling Vent Valve Leak
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to take corrective action to replace spent fuel pool cooling system discharge header vent valve AC-898 after a leak was identified. A work order for the condition was opened in 2009 but was never implemented. Subsequently, a pressure boundary leak was identified in 2013 and misidentified in 2014 but was never addressed. The licensee replaced vent valve AC-898 and repaired the affected weld in April 2015. This issue was entered into the licensee's corrective action program as Condition Report 2015-05038.
The failure to promptly identify and correct a condition adverse to quality was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At Power," Exhibit 3, "Barrier Integrity Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not adversely affect decay heat removal capabilities from the spent fuel pool causing the pool temperature to exceed the maximum analyzed temperature limit specified in the site-specific licensing basis, did not result from fuel handling errors, dropped fuel assembly, dropped storage cask, or crane operations over the SFP that caused mechanical damage to fuel clad and a detectible release of radionuclides, did not result in a loss of spent fuel pool water inventory decreasing below the minimum analyzed level limit specified in the site-specific licensing basis, and did not affect the SFP neutron absorber, fuel bundle misplacement or soluble boron concentration. The inspectors determined that the finding had a basis for decision cross-cutting aspect in the area of human performance because leaders failed to ensure that the bases for operational and organizational decisions were communicated during multiple instances where the leak in valve AC-898 could have been repaired.

Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Perform Functionality Assessments for the Spent Fuel Pool Cooling System
The inspectors identified a finding associated with the failure of operations personnel to follow procedures used to perform functionality assessments. Specifically, operations personnel failed to provide sufficient technical justification for the reasonable assurance of functionality of the spent fuel pool cooling system when boric acid leaks were identified on discharge header vent valve AC-898. Vent valve AC-898 was replaced and the issue was entered into the licensee's corrective action program as Condition Report 2015 05856.
The failure of operations personnel to follow station procedures to perform functionality assessments was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it

adversely affected the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 3, "Barrier Integrity Screening Questions," the issue screened as having very low safety significance (Green) because the finding did not adversely affect decay heat removal capabilities from the spent fuel pool causing the pool temperature to exceed the maximum analyzed temperature limit specified in the site specific licensing basis, did not result from fuel handling errors, dropped fuel assembly, dropped storage cask, or crane operations over the SFP that caused mechanical damage to fuel clad and a detectible release of radionuclides, did not result in a loss of spent fuel pool water inventory decreasing below the minimum analyzed level limit specified in the site-specific licensing basis, and did not affect the SFP neutron absorber, fuel bundle misplacement or soluble boron concentration. The inspectors determined that the finding had a training cross cutting aspect in the area of 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# : 2015002 *(pdf)*

Emergency Preparedness

Significance: N/A Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Submit Summaries of the Impact of Changes to the Emergency Plan and Implementing Procedures
The inspector identified a non-cited violation of 10 CFR 50.54(q)(5) for the licensee's failure to submit reports of its analysis of the impact of changes to the emergency plan and implementing procedures on the emergency plan. Specifically, the inspector identified three examples between February 21 and June 18, 2015, of the licensee submitting changes to the emergency plan and implementing procedures without the required summaries. The issue was entered into the licensee's corrective action program as Condition Report CR 2015-04934.

The licensee failed to submit summaries of its analysis of the effect of changes to the emergency plan and implementing procedures as required by 10 CFR 50.54(q)(5). The issue was evaluated using Section 6.6.d of the NRC Enforcement Policy because the failure to submit the required summaries affected the NRC's ability to perform its regulatory function and was determined to be a Severity Level IV violation because the issue involved the licensee's ability to implement a regulatory requirement not related to assessment or notification. Traditional enforcement violations are not assigned a cross-cutting aspect.
Inspection Report# : 2015002 *(pdf)*

Occupational Radiation Safety

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: G Mar 05, 2015
Identified By: NRC
Item Type: VIO Violation
Failure to Provide Complete and Accurate Information on Licensed Operator Applications
On April 3, 2014, during performance of a self-assessment, the licensee identified a Severity Level IV violation of 10 CFR 50.9, "Completeness and Accuracy of Information," for the Fort Calhoun Station's failure to perform combustion order testing as required in American National Standards Institute Standard 3.4-1996 for physical examinations of licensed operators and as documented in NRC Form 396, "Certification of Medical Examination by Facility Licensee." Although licensed operators were subsequently tested and found to have passed the olfactory tests, this failure had regulatory significance because the incomplete and inaccurate information was provided under a signed statement to the NRC and impacted numerous licensing decisions.

The failure to maintain information required by the Commission's regulations complete and accurate in all material respects in accordance with 10 CFR 50.9 was a performance deficiency. The failure to properly perform medical examinations in accordance with ANS/ANSI 3.4-1996 as documented on NRC Form 396 was a performance deficiency and a violation of 10 CFR 50.9, "Completeness and Accuracy of Information". Traditional enforcement applied to this finding because it involved a violation that impacted the regulatory process. Assessing the violation in accordance with the Enforcement Policy, the team determined it to be of Severity Level IV because all the licensed operators subsequently passed the combustion odor testing (Enforcement Policy Example 6.4.d.1(c)). A cross-cutting aspect was not assigned as this was a traditional enforcement violation without an associated reactor oversight process finding.
Inspection Report# : 2015010 *(pdf)*

Last modified : July 11, 2016