Fort Calhoun
4Q/2013 Plant Inspection Findings

Initiating Events

Significance: G May 29, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
HPSI Pump Flow Imbalance
The NRC identified a non-cited violation of Technical Specification 5.8.1.a for failure to establish, implement, and maintain a procedure recommended in Regulatory Guide 1.33, Revision 2, Appendix A. Specifically, the licensee failed to establish a procedure for changing load on the Main Turbine as required by Section 2.f, "Changing Load or Load Follow." The licensee entered this into their corrective action program as Condition Report 2013-08572.

Failure to comply with technical specifications is a performance deficiency. The finding is more than minor because it adversely affects the Procedure Quality attribute of the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using the Initiating Events Screening Questions in Manual Chapter 0609, Appendix A, Exhibit 1, the finding was determined to not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available; therefore, the finding is of very low safety significance.

This finding was determined to have a cross-cutting aspect in the area of human performance, associated with resources, because the licensee failed to ensure that procedures are available and adequate to assure nuclear safety. Specifically, the licensee did not establish a quality procedure for changing load on the Main Turbine as recommended by Regulatory Guide 1.33, Revision 2, Appendix A.

Inspection Report# : 2013010 *(pdf)*

Significance: N/A Aug 18, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Ensure Breaker Coordination of 480 VAC Electrical Power Distribution System Was Maintained
The team identified a violation of 10 CFR 50 Appendix B Criteria III, "Design Control." Specifically, the design modification package for the 480 VAC breaker replacements failed to ensure the breaker coordination for the 480 VAC electrical buses was maintained. As a result, feeder breaker 1B3A tripped unexpectedly during the fire event in the 1B4A switchgear. This performance deficiency also resulted in the loss of multiple buses on both trains of 480 VAC, including ECCS systems, from a single fault on a 480 VAC bus. This finding and its corrective actions will be managed by the NRC's Inspection Manual Chapter 0350 Oversight Panel. This finding is associated with Enforcement Action 12-121.

The failure to ensure that the 480 VAC electrical power distribution system design requirements were maintained was a performance deficiency that was within OPPD's ability to foresee and prevent. The performance deficiency was reviewed using NRC Inspection Manual Chapter 0612, Appendix B, "Issue Screening," and the issue was determined to be more than minor because it affected the Initiating Events Cornerstone attributes of protection against external events (i.e., fire) and design control. The issue adversely affected the associated cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge

Inspection Report# : 2012004 *(pdf)*

Significance: R Apr 13, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Ensure that the 480 Vac Electrical Power Distribution System Design Requirements were Implemented and Maintained
The failure to ensure that the 480 Vac electrical power distribution system design requirements were properly implemented and maintained through proper maintenance, modification, and design activities led to a catastrophic fire in a switchgear impacting the required safe shutdown capability of the plant. Three self-revealing apparent violations were identified with this performance deficiency:

• A violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure that design changes were subject to design control measures commensurate with those applied to the original design and that measures were established to assure that applicable regulatory requirements and the design basis for those safety-related structures, systems, and components were correctly translated into specifications, drawings, procedures, and instructions;

• A violation of 10 CFR Part 50, Appendix B, Criterion XVI "Corrective Action," for the failure to establish measures to assure that a significant condition adverse to quality was promptly identified and corrected, and measures taken to preclude repetition;

• A violation of License Condition 3.D, "Fire Protection Program," for the failure to ensure that the electrical protection and physical design of the 480 Vac electrical power distribution system provided the electrical bus separation required by the fire protection program.

Specifically: (1) design reviews and work planning for a modification to install twelve new 480 Vac load center breakers failed to ensure that the cradle adapter assemblies had a low-resistance connection with the switchgear bus bars by establishing a proper fit and requiring low resistance connections; (2) preventive maintenance activities were inadequate to ensure proper cleaning of conductors, proper torquing of bolted conductor and bus bar connections, or adequate inspection for abnormal connection temperatures; and (3) design reviews of the electrical protection and train separation of the 480 Vac electrical power distribution system were inadequate to ensure that a fire in load center 1B4A would not adversely impact operation of redundant safe shutdown equipment in load center 1B3A, as required by the fire protection program. The licensee entered these issues into their corrective action program under numerous condition report numbers, which are described in the body of this report.

The performance deficiency was determined to be more than minor because it affected the Initiating Events Cornerstone and was associated with both the protection against external events attribute (i.e., fire) and the design control attribute. The finding affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," Table 4a, directed the process to a Phase 3 analysis because the finding increased the likelihood of an external event (fire), and impacted mitigating systems needed to respond to that initiating event. A Phase 3 analysis was completed using the plant-specific Standardized Plant Analysis Risk Model for Fort Calhoun, Revision 8.15, the Individual Plant Evaluation of External Events (IPEEE), and hand calculations. The analysis covered the risk affected by the performance deficiency for postulated fires of any of the remaining nine continuously energized breakers including the potential for multiple fire initiators. Additionally, seismically-induced fires were postulated based on the characteristics of the performance deficiency. Based in the best available information the performance deficiency was preliminarily characterized as a finding of high safety significance (Red). This performance deficiency had a crosscutting aspect in the area of human performance associated with the resources component because the licensee did not ensure that personnel, equipment,

procedures, and other resources were adequate to assure nuclear safety. Specifically, the licensee did not ensure that design documentation, procedures, and work packages were adequate to assure that design margins were maintained. [H.2(c)]
Inspection Report# : 2012010 *(pdf)*

Significance: G Feb 02, 2012
Identified By: NRC
Item Type: VIO Violation
Inadequate Corrective Actions to Ensure Reliability of Raw Water Pump Power Cables
The NRC identified a cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to take effective corrective action following the initial discovery of water intrusion in cable vault manholes MH-5 and MH-31 in 1998, 2005, 2009, and 2011. Specifically, the licensee failed to take effective corrective action to establish an appropriate monitoring frequency, which took into account variable environmental conditions to mitigate potential common mode failure of raw water 4160 V motor cables in underground ducts and manholes identified during the Component Design Basis Inspection performed in 2009. The violation is being cited because the licensee had failed to restore compliance in a reasonable period following documentation of the issue as a non-cited violation issued December 30, 2009.
The failure to take effective corrective action to ensure the reliability and capability of the safety-related cables powering the raw water pump motors was a performance deficiency. Furthermore, the finding was within the licensee's ability to foresee and correct because the licensee had multiple opportunities to correct the continuing challenge to the safety-related cables and raceways for the raw water system over an extended period. The finding was more than minor because it adversely affected the Mitigating Systems Cornerstone attribute of design control for ensuring the availability, reliability, and capability of systems that respond to Initiating Events to prevent undesirable consequences. The finding is of very low safety significance because it was a design deficiency that did not result in loss of operability or functionality.

This finding has a crosscutting aspect in the decision-making program component of the human performance area because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action was safe in order to proceed rather than a requirement to demonstrate that it was unsafe in order to disapprove the action. Specifically, from 2005 until 2011, the licensee chose to postpone installation of proposed water level control corrective actions and failed to appropriately monitor water intrusion into underground ducts and manholes MH-5 and MH-31 for raw water 4160 V motor cables multiple times.
Inspection Report# : 2011006 *(pdf)*
Inspection Report# : 2013019 *(pdf)*

Mitigating Systems

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: FIN Finding
Frazil Ice Monitor Not Operational
The team identified a finding for the licensee's failure to maintain their frazil ice detector operational. The detector was sampling a non-representative water temperature which would not have warned operators of the presence of conditions favorable for the formation of frazil ice on intake structure components. The licensee entered the issue into the corrective action program as Condition Report CR 2013-04310 and switched the points they monitored for potential frazil ice formation.

This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration 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," the finding is determined to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of RCS inventory; did not degrade the licensee's ability to terminate a leak path or add RCS 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 take appropriate corrective actions to address a similar condition during the winter of 2011-2012 in a timely manner, commensurate with the safety significance and complexity.

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Safety-Related Equipment for Design Basis Low River Level
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 have safety-related equipment to ensure safe operations down to the design basis low river level. Specifically, from initial plant operations, the licensee failed to ensure that raw water cooling was provided down to the design basis low river level by ensuring the associated specifications and procedures supported raw water pump operation. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04169 and 2013-06436.
This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration 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," 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. 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# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Account for Worst Case Conditions in Fuel Oil Inventory Calculation
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 account for design basis conditions in their fuel oil consumption calculation. Specifically,

since June 2011, the licensee failed to translate the worst case design emergency diesel generator frequency that could impact the consumption of fuel oil into the applicable design documentation. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04311 and 2013-04470 to address the deficiency.
This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration 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," 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. 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# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Sluice Gate Leakage Not Periodically Verified
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 ensure that a critical parameter in the design calculation for intake cell level control (sluice gate leakage) was periodically measured to ensure the plant stayed within the parameters of the design calculation. Specifically, since April 2011, the licensee failed to assure that the assumed leakage of the sluice gates was translated into a procedure to periodically measure leakage against acceptance criteria to ensure the leakage was low enough to support the intake structure design calculation. This issue has been entered into the corrective action program as Condition Report CR 2013-04315.
This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration 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," the finding is determined to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of RCS inventory; did not degrade the licensee's ability to terminate a leak path or add RCS 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# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Accurately Model Raw Water Flow into the Intake Structure
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 accurately model the traveling screens and trash racks in the flow calculation for cell level control. Specifically, since April 2011, the licensee failed to translate the actual plant configuration for flow of water into the intake structure during flooding into the applicable design calculation. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04468 and 2013-04310.
This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration 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," 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. 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 did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions.

Inspection Report# : 2013008 *(pdf)*

Significance:  Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Account for Usable Fuel Oil Tank Level in Inventory
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 translate the usable volume of fuel oil in tank FO-1 into the applicable design documentation. Specifically, prior to March 6, 2013, the licensee failed to ensure the proper usable volume of available fuel oil in tank FO-1 was translated into design specifications because the calculation did not address vortexing. This issue has been entered into the corrective action program as Condition Report CR 2013-04951.
This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration 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," 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. 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 did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions.

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Root Cause for a Significant Condition Adverse to Quality
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," associated with the licensee's failure to promptly identify, correct, and prevent recurrence of a significant condition adverse to quality. Specifically, from November 2009 to present, measures established by the licensee failed to assure that the cause of an identified significant condition adverse to quality was corrected and corrective actions taken would preclude repetition. This issue has been entered into the corrective action program as Condition Report Condition Report CR 2013-04037.
The performance deficiency is more than minor, and therefore a finding, because it is associated with the 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. Additionally, if left uncorrected, the licensee's RCA will not provide assurance that effective corrective actions are taken to preclude recurrence of a breaker trip failure. Using Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, Checklist 4, "PWR Refueling Operation: Reactor Coolant System (RCS) level > 23' OR PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer," which contained the initial screening for pressurized water reactors that are shutdown with a time to boil of greater than 2 hours. Technical Specification 2.7, "Electrical Systems," states that the reactor shall not be heated up or maintained at temperatures above 300 degrees Fahrenheit unless the electrical systems listed in that section [includes the 480 V busses] are operable. Because the plant was maintained below 300 degrees during the exposure period, the team determined that power availability technical specifications were being met as discussed in Checklist 4. Because the finding did not increase the likelihood of a loss of RCS inventory; did not degrade the licensee's ability to terminate a leak path or add RCS 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 accountability associated with the other safety culture components because the licensee failed to demonstrate a proper safety focus and reinforce safety principles among their peers. Specifically, the licensee focused on sending a message about the vendor rather than the licensee's failures to establish accountability for the vendor's products and services.

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish and Document Basis for Test Acceptance Criteria
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 assure that applicable design basis information, as defined in 10 CFR 50.2, for breaker testing was correctly translated into specifications, drawings, procedures, and instructions. Specifically, from July 2011, to the present the licensee failed to incorporate the basis for the acceptance limits of the digital low resistance ohmmeter values into specifications and procedures. Without a basis for the acceptance values the licensee cannot show that the breakers will perform satisfactorily in service, and incorrect acceptance values could allow high resistance connections to go unnoticed. This issue has been entered into the corrective action program as Condition Report CR 2013 04032.
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," the team determined that because this finding did not increase the likelihood of a loss of RCS inventory; did not degrade the licensee's ability to terminate a leak path or add RCS 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 human performance associated with the work practices component because licensee personnel failed to follow procedures. Specifically, FCS personnel failed to follow the requirements specified in Procedure PED-GEI-7, "Specification of Post-Modification Test Criteria".

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Conditions Adverse to Quality Involving Frequency Compatibility Issues in the 120 Vac System
The team reviewed a self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to address frequency compatibility issues in the 120 Vac electrical distribution system. Specifically, between June 5, 2008, and February 22, 2013, the licensee failed to correct known frequency compatibility issues in the 120 Vac instrument system that resulted in voltage transients and damage to instrumentation supplied by the 120 Vac instrument inverters. This issue has been entered into the corrective action program as Condition Report CR 2013-03866. At the close of the inspection, the licensee was still completing causal analysis and identification of corrective actions necessary to address frequency compatibility issues in the 120 Vac electrical distribution system.
This performance deficiency is more than minor, and therefore a finding, because it affected 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 G, "Shutdown Operations Significance Determination Process," 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, 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 had a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component. Specifically, the team identified that the licensee failed to adequately evaluate repeated low voltage/ground alarm associated with the 120 Vac distribution system.
Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Account for Additional Diesel Loading from Non-Safety Loads
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," for the licensee's failure to update calculations to account for non safety-related loads supplied by the emergency diesel generator through non-qualified isolation devices and the cumulative impact on diesel fuel oil consumption. Specifically, prior to prior to April 1, 2013, Calculation EA-FC-92-072, "Diesel Generator Transient Loading Analysis Using EDSA Design Base 3.0," Revision 6, failed to account for the additional diesel fuel oil consumption that would occur due to the loads that would be supplied from the emergency diesel generators through non-CQE isolation devices. The licensee modified Calculation EA-FC-92-072 to address the team's concerns. This issue has

been entered into the corrective action program as Condition Report CR 2013-09817.
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. Because this performance deficiency affected the calculation used to determine the require diesel fuel oil inventory for an accident or a loss of offsite power occurring from at power conditions, the team used Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At-Power," and determined the finding 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. 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 failed to thoroughly evaluate the condition identified in Condition Report CR 2013-04594 to determine its impact to emergency diesel generator fuel oil consumption.

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Implement the Maintenance Rule
The team identified a non-cited violation of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," associated with the licensee's failure to adequately monitor the performance of structures, systems, and components, against established goals in a manner sufficient to provide reasonable assurance that these structures, systems, and components are capable of fulfilling their intended functions. Specifically, from June 7, 2011, to the present, the licensee failed to monitor the performance of the 480 Vac busses in a manner sufficient to provide reasonable assurance that they are capable of fulfilling their intended safety functions. This issue has been entered into the corrective action program as Condition Report CR 2013-04352.
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 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," which contained the initial screening for pressurized water reactors that are shutdown with a time to boil of greater than 2 hours. Technical Specification 2.7, "Electrical Systems," stated that the reactor shall not be heated up or maintained at temperatures above 300 degrees Fahrenheit unless the electrical systems listed in that section [includes the 480 V busses] are operable. Because the plant was maintained below 300 degrees during the exposure period, the team determined that power availability Technical Specifications were being met as discussed in Checklist 4. Because the finding did not increase the likelihood of a loss of RCS inventory; did not degrade the licensee's ability to terminate a leak path or add RCS 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 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: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Initiate Condition Reports in Accordance with the Corrective Action Program Procedures
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 initiate condition reports when problems or conditions adverse to quality were identified in accordance with Procedure FCSG-24-1, "Condition Report Initiation," Revision 3. Specifically, between July 2012 and March 2013, the team identified 11 instances where licensee staff failed to initiate a condition report after identifying a deficiency or a condition adverse to quality. In some instances, licensee personnel had to be prompted by the team to initiate a condition report. As a result, the corrective actions taken to address the conditions could have been potentially untimely. This issue has been entered into the corrective action program as Condition Report CR 2013-06991.
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 enter conditions adverse to quality into the corrective action program, the conditions adverse to quality may not be evaluated and corrected in a timely manner. This finding is associated with Mitigating Systems Cornerstone. The team determined that the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," and conducted a Phase 1 characterization and initial screening. Using Phase 1, Table 3, "SDP Appendix Router," the team answered 'yes' to the following question: "Does the finding pertain to operations, and event, or a degraded condition while the plant was shutdown?" As a result, the team used IMC 0609 Appendix G, "Shutdown Operations Significance Determination Process." Using Appendix G, the finding is determined to have very low safety significance (Green) since it did not need a quantitative assessment. 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 implement a corrective action program with a low threshold for identifying issues.

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct Conditions Adverse to Quality
The team identified a 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, between July 2012 and March 2013, the team identified 6 instances where the licensee failed to identify a deficiency or a condition adverse to quality and to enter them into the corrective action program. As a result, conditions adverse to quality may not be corrected in a timely manner commensurate with the safety significance. This issue has been entered into the corrective action program as Condition Report CR 2013-07959.
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, the failure to identify conditions adverse to quality and enter them into the corrective action program, has the potential to lead to a failure to correct conditions adverse to quality in a timely manner commensurate with the safety significance. This finding was associated with the Mitigating Systems Cornerstone. The team determined that the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," and conducted a Phase 1 characterization and initial screening. Using Phase 1, Table 3, "SDP Appendix Router," the team answered 'yes' to the following question: "Does the finding pertain to operations, and event, or a degraded condition while the plant was shutdown?" As a result, the team used IMC 0609 Appendix G, "Shutdown Operations Significance Determination Process." Using Appendix G, the finding

is determined to have very low safety significance (Green) since it did not need a quantitative assessment. 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 implement a corrective action program with a low threshold for identifying issues and did not identify issues completely, accurately, and in a timely manner commensurate with their safety significance.
Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Effectively Monitor the Performance of Penetration Seals
The team identified a non-cited violation of 10 CFR 50.65(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," associated with the licensee's failure to effectively monitor the performance of penetration seals in Room 81. Specifically, from initial maintenance rule scoping in 1996 to March 2013, the licensee did not demonstrate that the performance or condition of the penetration seals in Room 81 were being effectively controlled and failed to monitor the performance or condition against licensee-established goals, in a manner sufficient to provide reasonable assurance that these components were capable of fulfilling their intended functions. This issue has been entered into the corrective action program as Condition Report CR 2013 05506.
The performance deficiency is more than minor, and therefore a finding, because it is associated with the protection against the 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. 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. 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 failed to thoroughly evaluate problems such that the resolutions address the causes.
Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure for Combating Loss of Raw Water
The team identified a non-cited violation of Technical Specification 5.8.1, Procedures, for the licensee's failure to maintain an adequate procedure for the loss of raw water cooling. Specifically, since April 2011, the licensee failed to maintain Procedure AOP-18, "Loss of Raw Water," to adequately align the component cooling water system for the feed and bleed mode. This issue has been entered into the corrective action program as Condition Report CR 2013-04417.
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," the finding is determined to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of RCS inventory; did not degrade the licensee's ability to terminate a leak path or add RCS 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# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Deficient Evaluation for Known Degraded Conditions: Safety-Related Air Operated Valve Elastomers not Qualified for HELB/LOCA Temperatures
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," associated with the licensee's failure to properly evaluate a known degraded condition regarding safety-related air operated valve elastomers that were not qualified for high energy line break or loss of coolant accident temperatures. Specifically, from January 11 through January 18, 2013, due to a an improper application of the single failure criteria, the licensee failed to properly evaluate and correct a known degraded condition associated with safety-related air operated valve elastomers that were not qualified for high energy line break or loss of coolant accident temperatures. This issue has been entered into the corrective action program as Condition Reports CRs 2013 01396 and 2013-02611.

This performance deficiency is more than minor, and therefore a finding, because if left uncorrected, the failure to correct the degraded condition had the potential to lead to a more significant safety concern. Specifically, the affected AOVs would have been in a condition where they would not have been qualified to perform their intended safety function. This issue was associated with the Mitigating Systems Cornerstone. 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. 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 failed to thoroughly evaluate problems such that the resolutions address the causes.

Inspection Report# : 2013008 *(pdf)*

Significance: N/A Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform an Evaluation for a Change to Component Cooling Water Make-up
The team identified a Severity Level IV non-cited violation of 10 CFR Part 50.59, with an associated Green finding, because the licensee failed to perform an evaluation for a design change that may have required NRC review and approval. Specifically, from June 2008, the licensee did not evaluate a change that would permanently substitute manual actions for an automatic action to add water and nitrogen gas to the component cooling water surge tank, which is an updated safety analysis report described design function for the component cooling water system. The licensee entered this condition into their corrective action program and planned to perform an evaluation to determine

if prior NRC review and approval is needed for this design change. This issue has been entered into the corrective action program as Condition Report CR 2013-04417.
The team determined that it was reasonable for the licensee to be able to foresee and prevent the occurrence of this deficiency. The team evaluated this performance deficiency as both a traditional enforcement violation, and a reactor oversight process finding. The violation of 10 CFR Part 50.59 was more than minor because it involved a change to an updated safety analysis report design function in that there was a reasonable likelihood that the change would require NRC review and approval. This finding is associated with the Mitigating Systems Cornerstone. The team used the NRC Enforcement Manual and Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," to evaluate this issue. The finding is determined to have very low safety significance (Green) because it was a design deficiency confirmed not to result in the loss of operability or functionality. The violation of 10 CFR 50.59 impacted the ability of the NRC to perform its regulatory oversight function and was determined to be Severity Level IV because the resulting changes were evaluated by the significance determination process as having very low safety significance, in accordance with the NRC Enforcement Policy. The NRC concluded that the finding did not reflect current licensee performance.

Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Multiple Examples of Operability Determinations that Lacked Adequate Technical Justification
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," involving multiple examples of the licensee's failure to perform an adequate operability determination as required by Procedure NOD-QP-31, "Operability Determination Process." In each example, the team identified that the operability determination lacked adequate technical justification for why the structure, system, or component was operable with the degraded or nonconforming condition. Specifically, on January 24, 2012, June 6, 2012, December 27, 2012, January 22, 2013, and February 5, 2013, the operability determinations for Condition Reports CRs 2012-00580, 2012-04973, 2012-20806, 2013-00907, and 2013-02260 were not performed in accordance with Procedure NOD-QP-31, Revision 51-52, Step 4.1.3 J. This issue has been entered into the corrective action program as Condition Reports CRs 2013-08343, 2013-05596, 2013-08590, 2013-04163, and 2013-05353.
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 RCS inventory, the finding did not degrade the licensee's ability to terminate a leak path or add RCS 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 problem identification and resolution associated with corrective action program component. Specifically, the team identified that the licensee failed provide an adequate technical discussion such that a reasonable expectation of operability was demonstrated for several degraded or nonconforming conditions.
Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Multiple Examples of Inadequate Risk-Based Operability Determinations
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and

Drawings," involving multiple examples of the licensee's use of probability or probabilistic risk assessment when performing operability determinations. The use of probability or probabilistic risk assessment when determining operability is contrary to Procedure NOD-QP-31, "Operability Determination Process," Revision 51-53. Specifically, on January 26, 2012 and twice on February 21, 2013, the operability determinations performed for Condition Reports CRs 2012-00626, 2013-03839, and 2013-03842 used probability and/or probabilistic risk assessment to justify the operability of structures, systems, and components. This issue has been entered into the corrective action program as Condition Reports CRs 2013-05590, 2013-05466, 2013-05597.
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 involved inadequate operability determinations that occurred while in a shutdown condition and involved plant equipment needed during shutdown conditions, 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 RCS inventory, the finding did not degrade the licensee's ability to terminate a leak path or add RCS 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. Specifically, the licensee proposed that a degraded/nonconforming condition was safe by relying on a non-conservative assumption that an event such as a tornado generated missile or external flooding at the site were not likely to occur.

Inspection Report# : 2013008 *(pdf)*

Significance: N/A Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prevent Failures of the Sluice Gates to Close
The team identified a violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," associated with the licensee's failure to take adequate corrective actions in a timely manner to correct sluice gate preventive maintenance failures. Specifically, prior to February 24, 2013, the licensee failed to prevent repetitive failures of the sluice gates to close upon demand. The licensee implemented corrective actions to remove the silt on the sluice gate ledge which allowed the gates to completely close and has entered the issue into their corrective action program as Condition Report CR 2013-04318. This finding is related to the Yellow finding issued in October 2010 that dealt with issues related to mitigating a significant external flooding event.
This performance deficiency is more than minor, and therefore a finding, because it is associated with the configuration control attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be potentially greater than Green but does not exceed the final significance of the Yellow finding regarding the ability to mitigate an external flooding event (NRC Inspection Report 05000285/2010008). Since the identified degraded condition is similar in both findings and a full significance determination process was previously conducted, a final significance color is not assigned to this finding. 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 did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions [P.1(c)]
Inspection Report# : 2013008 *(pdf)*

Significance: G Jun 10, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Adequate Instructions for Restoring Temporary Modifications

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 establish adequate instructions for restoring temporary modifications. Specifically, from January 17, 2013, to the present, the licensee's temporary modification control procedure did not include appropriate criteria for determining that control room and operations control center references reflect current plant configuration and were updated in a timely manner. The licensee initiated Condition Report CR 2013-04286, which stated that the licensee's transition to a new procedure will help ensure that control room and operations control center documents were updated in a timely manner and that the licensee is determining whether any near-term action is necessary to address the issue until then.
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. Additionally, if left uncorrected, the procedure inadequacy could become a more significant issue because it could allow operators to continue to reference material that does not reflect current plant configuration. 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," 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 human performance associated with the work control component because the licensee failed to appropriately coordinate work activities by incorporating actions to address the need to keep personnel apprised of work status, the operational impact of work activities, and plant conditions that may affect work activities. Specifically, the licensee did not incorporate actions into the procedure that would address the impact of out-of-date control room references on operator performance [H.3 (b)]
Inspection Report# : 2013008 *(pdf)*

Significance: G May 29, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Multiple Alarm Response Procedures Related to SIT Operation
The NRC identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, Corrective Action, for failure to correct a condition adverse to quality. Specifically, the licensee failed to identify and correct 18 alarm response procedures (ARPs) associated with a previously issued non-cited violation (NCV) for failing to comply with Technical Specification 2.3(1)(i) in that multiple safety injection tanks (SITs) were simultaneously connected for filling or sluicing operations (Condition Report 2012-01956 and 2012-04815). After identification, the licensee entered this into their corrective action program as Condition Report 2013-09711.

Failure to identify and correct a condition adverse to quality in accordance with 10 CFR 50 Appendix B, Criterion XVI is a performance deficiency. The finding is more than minor because it adversely affects the Procedure Quality 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. Using the Mitigating Systems Screening Questions in Manual Chapter 0609 Appendix A, Exhibit 2, the finding is not a deficiency that resulted in a loss of operability or functionality of a safety significant component. Therefore, the finding is of very low safety significance.

This finding was determined to have a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program, because the licensee failed to thoroughly evaluate problems such that the resolutions address the extent of conditions. Specifically, the licensee did not perform an adequate extent of condition to identify other procedures that were affected by a known operation (simultaneously filling or sluicing

SITs) that received an NRC-identified violation documented in NRC Report 05000285/2012301.

Inspection Report# : 2013010 *(pdf)*

Significance: G May 29, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Emergency Operating Procedures
The NRC identified a non-cited violation of Technical Specification 5.8.1.a. for failure to maintain written procedures identified in Regulatory Guide 1.33, Revision 2, Appendix A. Specifically, the licensee failed to maintain Emergency Operating Procedure (EOP) –6, "Loss of All Feedwater," and EOP-20, "Functional Recovery Procedure," with regards to starting the Main Feedwater Pump Lube Oil Pump prior to starting the Main Feedwater Pump. This issue was previously identified in an NRC-identified NCV against an Alarm Response Procedure that did not provide guidance that the auxiliary lube oil pump must be started prior to starting the main feedwater pump (Condition Report 2012-03140). After identification, the licensee entered this into their corrective action program as Condition Report 2013-08412.

Failure to comply with technical specifications is a performance deficiency.
The finding is more than minor because it adversely affects the Procedure Quality 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. Using the Mitigating Systems Screening Questions in Manual Chapter 0609, Appendix A, Exhibit 2, the finding is not a deficiency that resulted in a loss of operability or functionality of a safety significant component. Therefore, the finding is of very low safety significance.

This finding was determined to have a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program, because the licensee failed to thoroughly evaluate problems such that the resolutions address the extent of conditions. Specifically, the licensee did not perform an adequate extent of condition to identify other procedures that were affected by a known deficient procedure (ARP-CB-10, 11/A12) that received an NRC-identified violation documented in report 05000285/2012301.
Inspection Report# : 2013010 *(pdf)*

Significance: G May 29, 2013
Identified By: NRC
Item Type: FIN Finding
Failure to Perform Extent of Condition Evaluation
The inspectors identified a finding for the licensee's failure to follow their corrective action program procedures and perform an extent of condition evaluation. Specifically, the licensee failed to perform an extent of condition evaluation on emergency operating and abnormal operating procedures as required by procedure FCSG-24-5, "Cause Evaluation Manual" to identify other procedural deficiencies similar to those identified in non-cited violations NCV 05000285/2012301-01, NCV 05000285/2012301-04, and NCV 05000285/2012301-06.
The licensee's failure to perform an extent of condition review in accordance with FCSG-24-5 was a performance deficiency. The finding is more than minor because the failure to adequately implement corrective actions associated with identified procedural deficiencies affects the procedural quality attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Mitigating Systems Screening Questions in Manual Chapter 0609, Appendix A, Exhibit 2, the finding is not a deficiency that resulted in a loss of operability or functionality of a safety significant component. Therefore, the finding is of very low safety significance.

The finding has a cross-cutting aspect in the area of the problem identification and resolution associated with the

corrective action program because the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.

Inspection Report# : 2013010 *(pdf)*

Significance: G May 01, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to translate raw water pump anchor bolt specifications into calculations and drawings
The inspection team reviewed a self-revealing finding of very low safety significance (Green) and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control", for the failure to translate the design basis into instructions, procedures, and drawings. The raw water pump anchor bolt design specifications and calculations incorrectly assumed headed stud cast-in-place anchor bolts instead of the as-built J-style anchor bolts. The finding was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding did not ultimately affect the operability or functionality of the raw water pumps.
Inspection Report# : 2013012 *(pdf)*

Significance: G May 01, 2013
Identified By: NRC
Item Type: FIN Finding
Inadequate functionality evaluation of the raw water pump anchor bolts
The inspection team identified a finding of very low safety significance involving the licensee's failure to meet the requirements of the American Concrete Institute (ACI) 349-01. Specifically, the licensee's past functionality calculation failed to ensure the raw water pump anchorage met ACI 349-01 requirements. This finding was entered into the licensee's corrective action program. No violation of NRC requirements was identified.
The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding did not ultimately affect the operability or functionality of the anchorage. This finding had a cross-cutting aspect in the Decision-Making component of the Human Performance cross-cutting area because the licensee used non-conservative assumptions in a functionality evaluation of raw water pump anchorage. Specifically, the licensee failed to use strength reduction factors as required by ACI 349-01 in the evaluation of raw water pump anchorage [H.1(b)].
Inspection Report# : 2013012 *(pdf)*

Significance: G May 01, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to correct thermal stress acceptance limits in raw water piping and piping support calculations
The inspection team identified a finding of very low safety significance (Green) and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to correct a condition adverse to quality involving raw water system piping stresses that exceeded the allowable stresses. Specifically, since 1995 the licensee was using interim acceptance criteria that placed the piping and pipe supports in a non-conforming/degraded condition for an extended period of time because corrective actions were not implemented or planned. This finding was entered into the licensee's corrective action program.

The performance deficiency was determined to be more than minor because it was associated with Mitigating System cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the use of interim acceptance criteria placed the RW-111A piping and pipe supports in a nonconforming and degraded condition. The finding screened as of very low safety significance (Green) because it did not ultimately affect the operability or functionality of RW-111A.
Inspection Report# : 2013012 *(pdf)*

Significance: G May 01, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to adequately design containment air coolers structural bracing
The inspection team identified a finding of very low safety significance (Green) and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control" for the for the failure to ensure the adequacy of the design for the containment air coolers VA-16A and VA-16B. Specifically, the structural columns of the containment air coolers were subjected to greater than allowable stresses, and were not conservative or in compliance with Class I requirements as defined in Updated Safety Analysis Report (USAR) Section 5.11 and referenced codes.
The performance deficiency was determined to be more than minor because it was associated with Mitigating System cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as of very low safety significance (Green) because the containment air cooler system was subsequently determined to be operable but degraded.
Inspection Report# : 2013012 *(pdf)*

Significance: G May 01, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to adequately implement design requirements for U-bolt support
The inspection team identified a finding of very low safety significance (Green) and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the adequacy of the design for Raw Water Pipe Support RWS-117. Specifically, the licensee failed to demonstrate compliance with vendor requirements for the U-bolt of pipe support RWS-117. This finding was entered into the licensee's corrective action program.
The performance deficiency was determined to be more than minor because it was associated with Mitigating System cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the applied stresses exceeded the allowable stress for the U-bolt of pipe support RWS-117. The finding screened as of very low safety significance (Green) because it did not ultimately affect the operability or functionality of pipe support RWS-117.
Inspection Report# : 2013012 *(pdf)*

Significance: G May 01, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to translate design requirements for embedded unistrut supports into calculations
The inspection team identified several examples of very low safety significance (Green) non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the design basis for pipe supports SIH-17, SIH-94 and SIH-12 was correctly translated into specifications, drawings, procedures, and instructions.

Specifically the design calculations were non-conservative with respect to requirements defined by the unistrut concrete insert vendor manual and the calculations did not match the as-built condition.
The finding was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding did not ultimately affect the operability or functionality of the pipe supports.
Inspection Report# : 2013012 *(pdf)*

Significance: G May 01, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to translate electrical switchgear cabinet anchor bolt design specifications into drawings
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 design basis for all the 480V and 4160V buss switchgear cabinets were correctly translated into specifications, drawings, procedures, and instructions. Specifically, each of the respective switchgear cabinet drawings depicted the equipment secured with concrete anchor bolts, however the cabinets were found secured with welds to an embedded steel plate.
The finding was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding did not ultimately affect the operability or functionality of the electrical switchgear.
Inspection Report# : 2013012 *(pdf)*

Significance: TBD May 01, 2013
Identified By: NRC
Item Type: AV Apparent Violation
Failure to adequately design anchorage for containment spray and raw water system pipe supports
The inspection team identified an apparent violation of 10 CFR 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 this issue into the corrective action program.
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 tanks and safety injection valves. Specifically, the one-directional U-bolts are not designed to withstand two-directional loading and the failure of the aforementioned pipe supports could adversely impact the safety injection tanks and safety injection valves. The safety significance is pending additional analysis of the as-found configuration of the condensate drain piping line and associated pipe supports.
Inspection Report# : 2013012 *(pdf)*

Significance: TBD May 01, 2013
Identified By: NRC
Item Type: AV Apparent Violation
Failure to adequately implement design requirements for containment air cooler pipe supports
The inspection team identified an apparent violation of 10 CFR 50, Appendix B, Criterion III, Design Control, for the failure to ensure the adequacy of the anchorage for the Containment Spray and Raw Water system pipe supports. Specifically the anchorage design was non-conservative with respect to the design basis requirements. The licensee entered this issue into the corrective action program.
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 and Raw Water piping system. The safety significance is pending additional analysis of the as-found configuration of the condensate drain piping line and associated pipe supports.
Inspection Report# : 2013012 *(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: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Inspect, Maintain, and Test Emergency Feedwater Tank Equipment
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 ensure proper inspection, maintenance, and testing of equipment associated with emergency feedwater tank FW-19. Specifically, from initial construction until February 27, 2013, the licensee failed to ensure proper inspection, maintenance, and testing was performed on the emergency feedwater storage tank's sight glass ball check isolation valves, to prevent draining of the tank following failure of the sight glass. The licensee performed an analysis and concluded that operators have adequate time to respond to such a loss of tank FW-19 inventory. This issue has been entered into the corrective action program as Condition Reports CRs 2012-15687, CR 2013-03974, and CR 2013-06170.
This performance deficiency is more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective 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 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. 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 failed to thoroughly evaluate problems such that the resolutions address the causes [P.1(c)]
Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Operability Determination due to Failure to Establish Component Cooling Water System Leakage Criteria
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 component cooling water system leakage on the containment air coolers. Specifically, on October 6, 2010, and December 29, 2010, the operability determinations for Condition Reports CRs 2010-04955 and 2010-06905 were not performed in accordance with Procedure NOD-QP-31, "Operability Determination Process," Revision 43-44, Step 4.1.3 J, and consequently, failed to evaluate the impact of component cooling water system leakage on containment air coolers operability. This issue has been entered into the corrective action program as Condition Report CR 2013-05630.
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 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. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with corrective action program component. Specifically, the team identified that the licensee failed provide an adequate technical discussion such that a reasonable expectation of operability was demonstrated for containment air coolers with known leakage in the component cooling water system.

Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow ASME Code Requirements when Establishing New Pump Reference Values as Corrective Actions (#35)
The team identified a non-cited violation of 10 CFR 50.55a, "Codes and Standards," for the failure of the licensee to follow the ASME Code when establishing new reference curves as corrective action to address the performance of component cooling water pump AC-3A within the "low required action" range of the inservice testing program. Specifically, on July 29, 2011, the licensee failed to follow ASME Code, Subsection ISTB 6200(c), in that, the new reference curves were established without performing an analysis which included verification of the pump's

operational readiness at a pump level and a system level, without determining the cause of the change in pump performance, and without an evaluation of all trends indicated by available data. The team confirmed that while the pump was inoperable from an inservice testing perspective during this period, required surveillance testing showed that pump flows and differential pressures were still sufficient to meet the assumptions used in the FCS safety analysis. This issue has been entered into the corrective action program as Condition Report CR 2013-04010.
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. Since this finding was discovered during plant shutdown and involved plant equipment needed during shutdown conditions, 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 RCS inventory, the finding did not degrade the licensee's ability to terminate a leak path or add RCS 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 problem identification and resolution associated with the corrective action program component because the licensee failed to fully evaluate the degraded performance of component cooling water pump AC-3A to ensure that resolutions correctly addressed causes of the degraded performance and the cumulative impact on system operational readiness.

Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Condition Adverse to Quality Associated with Corrective Action Program Procedures and the Operability Process
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the failure to implement corrective actions to address significant flaws identified in procedures involving the degraded/nonconforming condition evaluation and operability determination process. Specifically, prior to March 1, 2013, the licensee failed to correct the procedural inadequacies associated with Procedure FCSG-24-3, "Condition Report Screening," Revision 3, as identified in the root cause analysis for Condition Report CR 2012-09494. This issue has been entered into the corrective action program as Condition Report CR 2013-04380.
This performance deficiency is more than minor, and therefore a finding, because if left uncorrected, inadequate corrective action program procedures could become a more significant safety concern. This finding is associated with the Mitigating Systems Cornerstone. Since the finding was discovered 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 RCS inventory, the finding did not degrade the licensee's ability to terminate a leak path or add RCS 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 problem identification and resolution associated with the corrective action program component because the licensee failed to implement a corrective action program with a sufficiently low threshold. Specifically, although the licensee identified significant flaws in FCS procedures while performing the RCA for Condition Report CR 2012-09494, the licensee failed to initiate the appropriate corrective action documents to drive the necessary procedure changes.
Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Deficient Evaluation of NRC Bulletin 88-04, Strong Pump Weak Pump Due to Failure to Consider The Effect

of AFW Pumps Discharge Check Valves Leakage
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 properly evaluate NRC Bulletin 88-04, "Potential Safety-Related Pump Loss," regarding the auxiliary feedwater pumps. Specifically, from November 28, 2010, through February 2013, the licensee failed to properly evaluate NRC Bulletin 88-04, for strong pump, weak pump, interaction regarding auxiliary feedwater pumps FW-6 and FW-10. The evaluation failed to consider pump-to-pump interaction that may result due to pump discharge check valve leakage. In addition, the licensee failed to re-evaluate the condition after surveillance testing performed on November 28, 2010, and September 1, 2012, identified leakage past both pump discharge check valves. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04680 and 2013-04806.
This performance deficiency is more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective 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 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. 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 failed to thoroughly evaluate problems such that appropriate corrective actions were promptly implemented.

Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Storage of the Raw Water to Auxiliary Feedwater Emergency Tank Fill Hose
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 properly store the raw water to emergency feedwater storage tank fill hose. Specifically, from July 1996 to February 27, 2013, the licensee failed to provide adequate instructions or procedures to ensure proper storage and temperature qualification of the auxiliary feedwater emergency fill hose. This issue has been entered into the corrective action program as Condition Report CR 2013 52276.
This performance deficiency is more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. 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. 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 failed to thoroughly evaluate problems such that the

resolutions address the causes.

Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Deficient Evaluation for Known Degraded Conditions – AFW Pumps Discharge Check Valve Leakage and Potential Overpressure of AFW Pump Suction Piping
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," associated with the licensee's failure to properly evaluate a known degraded condition regarding the auxiliary feedwater pump discharge check valve leakage and potential over-pressurization of the pumps suction piping. Specifically, from October 10, 2012, to March 15, 2013, the licensee failed to properly evaluate concerns regarding the auxiliary feedwater pump discharge check valves which resulted in the failure to implement adequate corrective actions to verify leak tightness of the check valves and prevent potential over pressurization of the pump's suction piping. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04806 and 2013-05018.
This performance deficiency is more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective 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 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. 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: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Implement Applicable ASME OM Code Requirements
The team identified two examples of a non-cited violation of 10 CFR 50.55a.(f)(4)(ii), "Codes and Standards," associated with the licensee's failure to properly implement applicable code requirements for in-service testing of safety-related pumps and check valves. Specifically, prior to March 11, 2013, the licensee failed to ensure that the testing of safety-related pumps and valves met the requirements of the American Society of Mechanical Engineers Operation and Maintenance Code. The applicable Code for the current in-service test program is the 1998 Edition through the 2000 Addenda. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04680, 2013-05018, 2013-05514, and 2013-05569.
This performance deficiency is more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent

undesirable consequences. 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. 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 failed to thoroughly evaluate problems such that the resolutions addressed the causes.

Inspection Report# : 2013008 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate Modification of Turbine Driven Auxiliary Feedwater Pump Back Pressure Protection Trip
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with an inappropriate modification of the auxiliary feedwater system. Specifically, from April 2011 through February 2013, measures established by the licensee did not assure that the modification to remove the turbine driven auxiliary feedwater pumps exhaust back pressure trip, properly considered and addressed the open configuration of the pumps exhaust piping to prevent blockage of the exhaust piping. This issue has been entered into the corrective action program as Condition Report CR 2013-05026, and an immediate operability determination was performed.
This performance deficiency is more than minor, and therefore a finding, because if left uncorrected, the continued practice of modifying the facility without evaluating for adverse impacts had the potential to lead to a more significant safety concern. Specifically, unevaluated modifications to the facility could introduce adverse changes that result in systems not able to perform their intended safety function which would not be recognized. This finding was associated with the Mitigating Systems Cornerstone. 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. 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 failed to thoroughly evaluate problems such that the resolutions address the causes [P.1(c)]
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)*

Significance: G Mar 01, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Two Examples of Failure to Obtain Prior NRC Approval for Flooding Mitigation Strategies
The inspectors identified two examples of a Severity Level IV violation of 10 CFR 50.59, Changes, Tests and Experiments," and associated Green findings for the licensee's failure to appropriately perform written evaluations for two changes for flooding mitigation strategies. In the first example, the licensee changed the Updated Safety Analysis Report and Abnormal Operating Procedure 01 (AOP-01), "Acts of Nature," to incorporate use of backflow through the circulating water system for a flow path for raw water. In the second example, the licensee was implementing a flooding mitigation modification which would have used components which did not meet full quality requirements for their Safety Class 3 designated function. Had the licensee appropriately evaluated these two changes, they would have determined that a license amendment was required for implementation of both changes since both resulted in more than a minimal increase in the likelihood of occurrence of a malfunction of a system, structure, or component important to safety.
The failure to perform adequate written evaluations of changes in accordance with 10 CFR 50.59(d)(1) was a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the human performance 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.

In accordance with the NRC Enforcement Policy, the inspectors used MC 0609, "Significance Determination Process," Appendix A, Exhibit 2, to determine the final significance of the finding. For the back flow through the circulating water system example, the finding represented a potential loss of the intake structure due to flooding; therefore, a Phase 3 evaluation by a senior reactor analyst was necessary. The senior reactor analyst evaluated a bounding risk analysis case which assumed that the raw water system and offsite power were lost. This bounding case had an incremental conditional core damage probability of 5.0 x 10-7, and therefore the finding was determined to have very low safety significance (Green). For the trash rack blowdown modification example, the inspectors determined the finding was of very low safety significance (Green) because the finding was a design deficiency that did not result in the loss of functionality. The NRC's significance determination process (SDP) considers the safety significance of findings by evaluating their potential safety consequences. The traditional enforcement process separately considers the significance of willful violations, violations that impact the regulatory process, and violations that result in actual safety consequences. Traditional enforcement applied to this finding because it involved a violation that impacted the regulatory process. Assessing the violation in accordance with Enforcement Policy, the inspectors determined it to be of Severity Level IV because it resulted in a condition evaluated by the SDP as having very low safety significance (Example 6.1.d.2 of the NRC Enforcement Policy). The inspectors determined the Green finding had a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate problems such that resolutions address the causes and extent of condition specifically associated

with deficiencies involving the “Acts of Nature” procedural guidance [P.1(c)]
Inspection Report# : 2013011 *(pdf)*

Significance: N/A May 17, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Maintain Command and Control Function During Fire Fighting Activities in the Protected Area
The inspectors identified a violation of Technical Specification 5.8.1.c regarding a failure to adequately implement the fire protection program. Specifically, the fire brigade failed to maintain command and control of the response to a fire event inside the protected area as required by fire protection program procedures. This finding, and its corrective actions, will be managed by the Manual Chapter 0350 Oversight Panel. Enforcement Action 12-121 is associated with this finding.

The failure by station fire brigade personnel to implement the requirements of Procedure SO-G-28, Revision 81, in response to a fire at Fort Calhoun Station inside the licensee’s protected area which required fire brigade response was a performance deficiency. The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of protection against external events (fire) and it affected the associated 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 Red finding regarding a fire in the 480 Vac safety-related switchgear in June 2011 (Inspection Report 05000285/2012010). This finding has a cross-cutting aspect in the area of human performance associated with decision making because the licensee failed to implement the fire brigade roles and authorities as designed for risk-significant decisions.
Inspection Report# : 2012007 *(pdf)*

Barrier Integrity

Significance: G May 29, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Work Control Procedures
The inspectors reviewed a self-revealing, non-cited violation of Technical Specification 5.8.1.a, which resulted from workers failing to follow maintenance work control procedures. On April 1, 2012, the facility experienced a raw water pump trip and subsequent automatic start of a standby pump during a post maintenance test on a safety related bus load shed relay. This event resulted from violations of station procedures required by Station Technical Specification 5.8.1.a., which commits the facility to Regulatory Guide 1.33, Revision 2. Specifically, Section 9 requires procedures for performing maintenance that can affect the performance of safety related equipment. The licensee documented this event in the corrective action program as Condition Report 2013-07253.

The failure to follow maintenance work control procedures was a performance deficiency. The performance deficiency is more than minor because it impacted the human performance 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. At the time of the event, the raw water system was the ultimate heat sink connection to the spent fuel pool containing a full core off-load as well as previous core load spent fuel. Using Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," this finding was of very low safety significance because the event did not increase the likelihood of reactor coolant system inventory loss, did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed, and did not degrade the licensee's ability to recover decay heat removal once it was

lost. The finding has a cross-cutting aspect in the area of human performance because the licensee failed to make safety-significant decisions using a systematic process to ensure safety is maintained.

Inspection Report# : 2013010 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure that Design Requirements Associated with the Containment Electrical Penetration Assemblies Were Correctly Translated Into Installed Plant Equipment
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 translate applicable regulatory requirements and the design basis into specifications, drawings, procedures, and instructions. Specifically, from initial construction to present, the licensee did not perform adequate analysis and/or post-accident condition functional testing of the teflon insulated and teflon sealed Conax electrical penetration assemblies to determine if they were suitable for expected post accident conditions. The licensee has decided to replace or cap all Teflon-insulated containment electrical penetration assemblies prior to returning to power operations. This issue has been entered into the corrective action program as Condition Report CR 2013 03571.

This performance deficiency is more than minor, and therefore a finding, because it is associated with the design control attribute of the Barrier Integrity Cornerstone and affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, RCS, and containment) protect the public from radionuclide releases caused by accidents or events. 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 did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system, and heat removal components. 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 failed to implement a corrective action program with a low threshold for identifying issues and identify such issues completely, accurately, and in a timely manner commensurate with their safety significance.
Inspection Report# : 2013008 *(pdf)*

Emergency Preparedness

Significance: G 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 evalutors 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)*

Significance: G May 18, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Siren Maintenance as Required by the Alert and Notification System Design Report
The inspectors identified a noncited violation of 10 CFR 50.54(q)(2) for failure to follow an emergency plan meeting the planning standards of 10 CFR 50.47(b). Specifically, the licensee did not meet 50.47(b)(5) because they failed to fully implement preventative maintenance requirements of "Design Report for the Outdoor Public Warning System," Revision 1, as determined by Federal Emergency Management Agency Region VII. The failure to fully implement requirements of the Federal Emergency Management Agency-approved alert and notification system design report was a performance deficiency within the licensee's control.

The finding had a credible impact on the Emergency Preparedness Cornerstone objective because it involved the ability to warn the public using the primary alert and notification system. The finding is more than minor because it affected the equipment and facilities and offsite emergency preparedness cornerstone attributes. The finding was evaluated using the emergency preparedness significance determination process and determined to be of very low safety significance because it was not a loss of the planning standard function. It was not a loss of planning standard function because deficiencies in maintenance of the alert and notification system did not degrade system performance. This finding was assigned a cross-cutting aspect of Documentation [H.2(c)] because the licensee did not incorporate up-to-date design documentation into working procedures.

Inspection Report# : 2013004 *(pdf)*

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Conservative Value for Declaring an Alert on Low River Level
The team identified a non-cited violation of 10 CFR 50.54(q)(2) for the licensee's failure to maintain the effectiveness of an emergency plan. Specifically, since May 14, 2009, the licensee failed to maintain a proper value for low river level associated with the declaration of an emergency at the ALERT classification level. the licensee did not maintain a standard emergency action level scheme in accordance with the requirements of 10 CFR 50.47(b)(4), which states in part, that a standard emergency classification and action level scheme is in use by the nuclear facility licensee. The emergency action level scheme was not maintained because emergency action levels HU1 and HA1, "Natural or destructive phenomena affecting the Protected Area," contained an inaccurate river level of 973 feet 9 inches. The river level was inaccurate because the basis document, Procedure EPIP-OSC-1, "Emergency Classification," Revision 46, stated the emergency action level was based on the minimum elevation of the raw water pump suction. Based on available plant data, the minimum elevation of the raw water pump suction was above the Alert declaration point of 973 feet 9 inches. This issue has been entered into the corrective action program as Condition Reports CRs 2013-04198 and 2013-04169.
This performance deficiency is more than minor, and therefore a finding, because it is associated with emergency

response organization performance attribute of the Emergency Preparedness Cornerstone and affected the associated cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, inaccurate emergency action levels degrade the licensee's ability to implement adequate measures to protect public health and safety. The finding was evaluated using the Emergency Preparedness Significance Determination Process, and was determined to be of very low safety significance (Green) because the finding was not a lost or degraded risk significant planning function. The planning standard function was not degraded because the Notification of Unusual Event and Alert emergency classifications would have been declared although potentially in a delayed manner. This finding was not assigned a cross-cutting aspect because the performance deficiency is not reflective of current performance.

Inspection Report# : 2013008 *(pdf)*

Occupational Radiation Safety

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Post 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, which was the result of a radiation protection technician failing to monitor changing radiological conditions and post a high radiation area. As a result, an operator entered a high radiation area with dose rates greater than 100 millirems per hour without knowing the dose rates in the area. In response, licensee representatives immediately surveyed the affected areas, posted the area as a high radiation area, documented the occurrence in the corrective action program as Condition Report 2013-02603, and prepared an Apparent Cause Analysis Report.
The failure to post a high radiation area with dose rates greater than 100 millirems per hour is a performance deficiency. The performance deficiency was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process (exposure control) and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation because the failure exposed workers to higher than anticipated radiation dose rates. The Occupational Radiation Safety Cornerstone was affected; therefore, the inspectors used Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, to determine the significance of the violation. The violation had 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 had a cross-cutting aspect in the human performance area, work practices component, because the licensee failed to hold proper pre-job briefings and follow station procedures requiring monitoring of changing radiological conditions to ensure personnel did not proceed in the face of unexpected circumstances.
Inspection Report# : 2013005 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: FIN Finding
Failure to Adequately Plan and Control Work Activities to Maintain Doses ALARA
The inspectors reviewed a self-revealing finding of very low safety significance involving the licensee's failure to adequately plan and control work activities relating to the Chemical Volume Control System piping to maintain doses ALARA. Specifically, the work was "fast-tracked," which caused issues with the understanding of the work scope and

led to the mismanagement of foreseeable aspects in the ALARA planning process. In response, the licensee evaluated their ALARA process and entered the issue into their corrective action program as Condition Report 2012-20825.
The failure to maintain doses ALARA due to inadequate planning was a performance deficiency. The performance deficiency is more than minor because it negatively affected the Occupational Radiation Safety Cornerstone, in that inadequate planning led to increased collective radiation dose for occupational workers. This resulted in a finding because no violation of regulatory requirements occurred, but the licensee failed to meet a self-imposed standard. The Occupational Radiation Safety Cornerstone was affected; therefore, the inspectors used Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, to determine the significance of the finding. The finding had very low safety significance because although the finding involved ALARA planning and work controls, the licensee's latest three-year rolling average collective dose was less than 240 person-rem. This finding had a cross-cutting aspect in the human performance area, associated with the work control component, because the licensee failed to communicate, coordinate, and cooperate with each other during an activity in which interdepartmental communication was necessary.
Inspection Report# : 2013005 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Survey Resulting In Unintended Occupational Dose
The inspectors reviewed a self-revealing non-cited violation of 10 CFR Part 20.1501(a), which was the result of an inadequate survey to evaluate potential hazards from airborne radiation. As a result, a radiation worker received an uptake of 10 millirem in unintended dose. In response, the licensee immediately surveyed the area, performed whole body counts on the affected worker, decontaminated the affected worker, and documented the occurrence in the corrective action program as Condition Report 2012-19508.
The failure to perform a survey to evaluate the radiological conditions and potential hazard from airborne radiation is a performance deficiency. The licensee had the ability to foresee a possible intake if the survey had been properly performed. The performance deficiency was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process (exposure control) and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The Occupational Radiation Safety Cornerstone was affected; therefore, the inspectors used Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, to determine the significance of the violation. The violation had 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 had a cross-cutting aspect in the human performance area, work control component,
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because the licensee failed to maintain communication during activities in which interdepartmental coordination was necessary to assure plant and human performance, such as the need to keep personnel apprised of changing radiological conditions that affected work activities.
Inspection Report# : 2013005 *(pdf)*

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: G Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Obtain Prior NRC Approval for a Facility Change
The team identified a non-cited violation of 10 CFR 50.59, "Changes, Test, and Experiments," associated with the licensee's failure to adequately evaluate changes in order to ensure that they did not require prior NRC approval. Specifically, from March 4, 1995, 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 more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component important to safety previously evaluated in the updated safety analysis report. This issue has been entered into the corrective action program as Condition Reports CR 2013-04266 and CR 2013-05210. Because this performance deficiency had the potential to impact the NRC's ability to perform its regulatory function, the team evaluated it using traditional enforcement. In accordance with Section 7.3.E.6 of the NRC Enforcement Manual, the team used Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process For Findings At-Power," and determined the finding 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 although this issue occurred more than three years ago, this finding is representative of current plant performance. 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 [H.1(b)]
Inspection Report# : 2013008 *(pdf)*

Significance: N/A Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Make Timely Event Notifications for Unanalyzed Conditions
The team identified four examples of a non-cited violation of 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," for the licensee's failure to make required event notifications within 8 hours following discovery of an event requiring a report. Specifically, on April 12, 2012, February 7, 2013, February 25,

2013, and February 27, 2013, the licensee failed to notify the NRC within 8 hours of the occurrence an event or condition that resulted in the nuclear power plant being in an unanalyzed condition that significantly degraded plant safety. This issue has been entered into the corrective action program as Condition Report CR 2013-05070.
The violation was evaluated using Section 2.2.4 of the NRC Enforcement Policy, because the failure to required 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 (Section 7.(42)).
Inspection Report# : 2013008 *(pdf)*

Significance: N/A Apr 15, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Repetitive Issues Involving Untimely Submittal of Required Licensee Event Reports
The team identified nine examples of a non-cited violation of 10 CFR 50.73, “Immediate Notification Requirements for Operating Nuclear Power Reactors,” for the licensee’s failure to make required licensee event reports within 60 days following discovery of an event requiring a report. Specifically, on nine occurrences between May 9, 2011, and August 30, 2012, the licensee failed to submit a licensee event report for an event meeting the requirements for reporting specified in 10 CFR 50.73. This issue has been entered into the corrective action program as Condition Report CR 2012-03796.
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# : 2013008 *(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 : February 24, 2014