

yes to the following question: Does the finding pertain to operations, and event, or a degraded condition while the plant was shut down? As a result, the inspectors were directed to use IMC 0609 Appendix G, Shutdown Operations Significance Determination Process. Using Appendix G the inspectors determined that the finding did need a quantitative assessment because the finding degrades the licensee's ability to recover decay heat removal once it is lost. As a result, the finding was forwarded to a Senior Reactor Analyst for further quantitative analysis. 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 5.0×10^{-7} , and therefore the finding was determined to have very low safety significance (Green). The inspectors determined the Green finding had a cross-cutting aspect in the area of problem identification and resolution because the licensee did not take appropriate corrective action to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity [P.1(d)].

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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)].

Mitigating Systems	05/29/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13192A501](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML13197A261						
(PIM) Frazil Ice Monitor Not Operational						
<p>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.</p>						
Mitigating Systems	03/31/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML14134A410						
(PIM) Failure to Follow Procedures for Classifying Component Failures						
<p>The inspectors identified a Green finding for the licensee's failure to follow a procedure for classifying component failures. Specifically, the licensee's failure to follow Procedure FCSG-69-5, Failure Identification and Reporting, is a performance deficiency. As a result, the failure of the Turbine-Driven Auxiliary Feedwater Pump, FW-10, to start on demand was not identified as a functional failure. Subsequently, the licensee properly evaluated the system performance taking into consideration the functional failure. The licensee documented the finding in the corrective action program as Condition Report 2014-04217. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the performance deficiency could have the potential to lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process For Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, dated June 19, 2012. The finding is of very low safety significance (Green) because it did not affect the design or qualification of a mitigating system, structure, or component (SSC), represent a loss of system function, or loss of function of single or multiple trains of equipment. The finding had a human performance cross-cutting aspect associated with training because the licensee failed to provide adequate training to the engineering staff.</p>						
Mitigating Systems	09/30/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML14317A777						
(PIM) Failure to Implement Procedural and Alarm Setpoint Changes in Support of an Operability Evaluation						
<p>The inspectors identified a Green finding for the licensee's failure to implement procedural changes and water level alarm setpoint changes relied upon by operators to initiate compensatory actions to maintain the operability of raw</p>						

water pump AC-10C. The licensee subsequently implemented these changes. The performance deficiency is more than minor because it is related to the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences, in that the failure to implement the required procedure and setpoint changes increased the likelihood that the affected raw water pump cable would become inoperable after significant rainfall or flooding. The inspectors performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. The finding has a cross-cutting aspect in the Human Performance area associated with the Avoiding Complacency aspect because operators did not recognize and plan for the possibility of mistakes and assumed that the necessary procedural and alarm setpoint changes had been made.

Mitigating Systems	03/05/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15128A180](#)

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

The inspectors identified a Green finding with four examples for failing to conduct and evaluate simulator performance testing in accordance with the standards of ANSI/ANS-3.5-2009. Specifically, the licensee failed to do the following: Set initial reactor power at 15 percent in accordance with plant design for all performances between 1990 and 2014 of Transient (6), Main Turbine Trip from Maximum Power Level That Does Not Result in Immediate Reactor Trip Set the instantaneous main turbine load reduction to 10 percent as supported by design basis data in the 2014 performance of Transient (11), Maximum Design Load Rejection Evaluate the results of the 100 percent power Steady-State Performance Test using the correct acceptance criteria in accordance with the standard, Appendix B, Section B.1.1 Evaluate all transient test results versus acceptance criteria 4.1.4(1) in accordance with the standard, Appendix B, Section B.1.2 After NRC identification of the transient test issues, licensee evaluation revealed that the initial conditions for Transients (5) and (10) were in error as well. The licensee initiated corrective action documented in condition reports 2014-14190, 2014-14208; and 2015-02547. The licensee's failure to conduct and evaluate performance testing in accordance with the ANSI/ANS-3.5-2009 standard as endorsed by Regulatory Guide 1.149, Revision 4, was the performance deficiency. Per licensee Procedure TQ-AA-306, Simulator Management, the licensee uses ANSI/ANS-3.5-2009 as the standard for their simulator testing. The performance deficiency is more than minor because if left uncorrected, the performance deficiency could have become more significant in that not completing the required simulator testing correctly can lead to not detecting and correcting errors in the simulator so it actually models the plant correctly. This can both leave the potential for negative training of licensed operators and call into question the ability to conduct valid licensing examinations with the simulator. Using Manual Chapter 0609, Significance Determination Process, Attachment 4, Tables 1 and 2 worksheets, and the corresponding Appendix I, Licensed Operator Requalification Significance Determination Process (SDP), Flowchart Block No. 14, the finding was determined to have very low safety significance (Green) because it dealt with deficiencies associated with simulator testing, modification, and maintenance and there was no evidence that the plant-referenced simulator does not demonstrate the expected plant response or have uncorrected modeling and hardware deficiencies. This finding has a cross-cutting aspect in the change management area of human performance, associated with leaders using a systematic process for evaluating and implementing change so that nuclear safety remains their overriding priority. There were efforts on-site to change to the 2009 version of the standard as early as 2011, but the efforts were rescinded by plant management in December 2011 for unknown reasons. When they officially switched from the 1985 to the 2009 version of the standard (on March 1, 2013), there is no evidence an effective change management plan was implemented. Efforts to transition between the testing and maintenance requirement differences were complicated by lack of allocating necessary resources to support this

effort. There was minimal simulator staffing during the extended plant outage (April 2011 to December 2013), and no effective plan to deal with knowledge management to compensate for simulator employee turnover. Internal audits in May 2014 and October 2014 found numerous issues with their simulator testing and configuration management program, many of which could have been averted or addressed earlier with an effective transition plan in place.

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

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

Green. The team identified a Green finding for the licensee's failure to verify or check the adequacy of design of the 125 Vdc batteries from environmental effects. Specifically, the licensee failed to account for the effects of elevated battery room temperature on expected battery service life, in accordance with EPRI Standard TR-100248,

Stationary Battery Guide: Design Application, and Maintenance, Revision 2. In response to this issue, the licensee performed an immediate operability determination to evaluate the effects of the elevated battery room temperatures and to determine when to modify the testing frequency based on the shorter life of the batteries. This finding was entered into the licensee's corrective action program as Condition Report CR 2015 02390. The team determined that the failure to account for elevated battery room temperature effects on battery service life was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to events to prevent undesirable consequences. Specifically, if left uncorrected, it could lead to a more significant safety concern in that the batteries could fail to maintain sufficient capacity and go undetected when testing at the normal 5 year interval. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of problem identification and resolution associated with operating experience because the licensee failed to evaluate and implement the EPRI standard based on industry experience when measuring room temperature readings above the optimal battery room temperature.

Occupational Radiation Safety	06/30/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13221A584](#)

(PIM) 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.

Miscellaneous

02/02/2012

FCS

N/A

*SCWE: N

*HP: N

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML12079A224](#)

(PIM) Fort Calhoun Station, 2011, Biennial Problem Identification and Resolution Inspection Summary

Overall, the NRC noted deficiencies in all three areas of the problem identification and resolution process. Most significantly, the licensee's own root cause assessment of the external flood protection violation concluded that they had not been effective in ensuring that the associated performance deficiencies were adequately identified, evaluated, and resolved, and that these same performance deficiencies also extended into other station activities and could impact overall station performance—a significant condition adverse to quality. This is a concern because problem identification and resolution is one of the primary reactor oversight process crosscutting areas that the NRC defines as the fundamental performance attribute that extends across all cornerstones of safety. The NRC identified that the licensee failed to correct this condition, identify the cause, and preclude recurrence as required. The team noted that while the licensee was identifying and placing a large number of adverse conditions into the corrective action process (nearly 21,000 in two and a half years), the associated corrective actions were often narrowly focused and failed to adequately identify the extent of cause and extent of condition, where required. The team also identified that due to the lack of an effective trending program, the licensee failed to identify degrading performance and therefore was unable to take action prior to the manifestation of conditions adverse to quality. Furthermore, the team identified numerous condition reports whose prioritization was inconsistent with the condition described. Examples included inoperable safety related equipment classified as broke-fix, contrasted with a minor personal injury, which resulted in an extensive root cause analysis. Several workers commented that everything was classified a priority, and therefore; nothing was a priority. In fact, the licensee classified 65 condition reports as significant conditions adverse to quality during the inspection period, roughly four times the typical number. Additionally, the team found examples of repetitive failures that were indicative of programmatic inadequacies. These examples included the failure to adequately utilize industry operating experience, inadequacies in the implementation of the corrective action program which was narrowly focused on resolving discrete conditions, and limited use of 10 CFR Part 21 reportability issues, which were typically closed without appropriate systematic equipment evaluation considerations.

Non-Cited Violation**Initiating Events**

02/02/2012

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML12079A224](#)

(PIM) Failure to Follow Housekeeping Program Requirements

The NRC identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the failure to properly implement procedural requirements to control transient equipment and materials. Specifically, on November 14, 2011, the team identified loose maintenance carts, improperly stored ladders, excessive transient combustible material, inadequately evaluated scaffolding being stored near safety-related equipment, and a procedure which failed to provide guidance for inspection and removal of foreign material in the spent fuel pool as a result of a non-functional skimmer. The repeated failures of plant personnel to follow the procedural requirements for the control of transient materials were performance deficiencies. The finding was more than minor because if left uncorrected, the deficiencies could lead to a more significant safety concern. The finding is of very low safety significance because it did not represent a loss of system safety function, did not represent the actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the corrective action program component of the problem identification and resolution area because the licensee failed to track and trend information from the corrective action program

(recurring transient equipment issues) in the aggregate to identify programmatic and common cause problems.

Initiating Events	06/07/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML12187A790						
(PIM) INADEQUATE PROCEDURES WITH FIVE EXAMPLES FOR THE INITIATING EVENTS CORNERSTONE						

The team identified a finding of very low safety significance involving a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, with five examples. Example 1: Alarm Response Procedure ARP-CB-10,11/A12 for a main feed water pump trip does not provide guidance that the auxiliary lube oil pump must be started prior to starting the main feed water pump. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. Example 2: Alarm Response Procedure ARP-CB-1,2,3/A2 provides inadequate instructions for restoration of letdown following a controller or instrument failure that causes letdown isolation. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. Example 3: Alarm Response Procedure ARP-AI-66A/A66A does not contain guidance to determine if an auxiliary feed water actuation is inadvertent nor does it contain guidance to enter AOP-28, Auxiliary Feed water System Malfunctions, if the operators determine that the actuation is inadvertent. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. Example 4: Alarm Response Procedure ARP-CB-1,2,3/A1 does not contain guidance for entering AOP-35, "Reactor Coolant Pump Malfunctions," when there is a seal cooler leak. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. Example 5: Alarm Response Procedure ARP-CB-1,2,3/A2 does not contain any procedural guidance for a failure of the VCT level instrument. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. These failures to prescribe activities affecting quality by procedures or to include appropriate acceptance criteria are performance deficiencies. Each example is more than minor and therefore a finding because it adversely affects the procedure quality attribute of the initiating events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. These examples either could have significantly affected, or were shown during examination preparation and administration to have actually affected the operator's ability to perform the activity affecting quality. In accordance with Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, a phase 1 screening was performed and each example except for Example 1 was determined to be of very low safety significance (Green) because each example does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. For Example 1, a phase 1 screening was performed and the finding was determined to contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available and required a phase 3 analysis. A senior reactor analyst determined that the finding was of very low safety significance because the calculated bounding delta core damage frequency was $1.4 \text{ E-}7$. 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 implement a corrective action program with a low threshold for identifying issues in that licensed operators deviate from procedures when procedures cannot be implemented as written without writing necessary condition reports to fix the deficient procedures.

Initiating Events	09/30/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML12318A341						
(PIM) Untimely Corrective Actions for 480 VAC Breaker Issues						

The NRC identified a noncited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, for the failure to take timely corrective actions with respect to nonconforming conditions in several circuit breakers. These conditions were determined to have been the cause of the 1B4A bus bar failure that initiated a fire on

June 7, 2011. These conditions were not corrected in a timely manner and the licensee continued to operate with a degraded breaker for nine months after the breaker tripped unexpectedly during the June 7, 2011, fire event. The licensee entered this issue into their corrective action program as CRs 2012-01884 and 2011-5414. The violation was determined to be more than minor because it affected the Initiating Events Cornerstone attribute of protection against external events (i.e., fire). The issue adversely affected the associated 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 because the condition that contributed to the fire event was left uncorrected. The finding screened to Green in accordance with IMC 0609, Appendix G because RCS makeup capability was not degraded. The inspectors determined that the issue had a cross-cutting aspect in the area of Human Performance, Decision Making, in that the licensee failed to use conservative assumptions and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action (H.1.b).

Initiating Events	12/31/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13045B055](#)

(PIM) Hot Work Procedures Allowed a Roving Fire Watch

The inspectors identified a Green non-cited violation of Technical Specification 5.8.1.c for the failure to maintain written procedures covering fire protection program implementation. Specifically, the licensee changed the hot work procedure to allow a roving fire watch in lieu of the continuous fire watch required by the fire protection program. The licensee entered this issue into their corrective action program as Condition Report 2012-19945. The failure to maintain written procedures covering fire protection program implementation was a performance deficiency. This finding was more than minor because it was associated with the procedure quality attribute of the Initiating Events cornerstone and it adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the risk significance of this finding using Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process, because the performance deficiency involved a failure to adequately implement fire prevention and administrative controls for hot work activities. A senior reactor analyst performed a limiting Phase 3 evaluation and determined this finding had very low risk significance (Green). The finding did not have a cross-cutting aspect since it was not indicative of present performance.

Initiating Events	05/29/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13192A501](#)

(PIM) 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.

Mitigating Systems	02/02/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML12079A224						
(PIM) Failure to Establish Adequate Measures to Maintain Vendor Manual Design Control Information						
<p>The NRC identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, for the failure to establish adequate measures for the selection and review for suitability of application of parts equipment, and processes that are essential to the safety-related function of structures, systems, and components. Specifically, the team identified numerous condition reports involving inadequate implementation of vendor manual information that affected the suitability of application of parts equipment, and processes that are essential to the safety-related function of structures, systems, and component repair and refurbishment activities over an extended period. The failure to properly maintain design information associated with vendor manuals to ensure information, which affected the suitability of application of parts equipment, and processes, essential to the safety-related function of structures, systems, and component repair and refurbishment activities, was a performance deficiency. 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 affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and was therefore a finding. The finding has very low safety significance because it did not represent a loss of system safety function, did not represent the actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the decision making component of the human performance area because the licensee failed to make safety-significant decision using a systemic process which included formally defining the authority and roles for decisions in that the licensee chose not to fill key positions responsible for the program for several years.</p>						
Mitigating Systems	02/02/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML12079A224						
(PIM) Failure to Implement an Adequate Trending Program						
<p>The NRC identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for inadequate procedures that are used to implement the licensee trending program. Specifically, on December 1, 2011, the team identified a deficiency regarding the licensee's inability to implement adequate procedures for gathering, analyzing, and communicating information related to low-level performance vulnerabilities and repeat occurrences prior to the emergence of more significant events. The failure to implement adequate procedures to trend conditions adverse to quality is a performance deficiency. The finding affected the Mitigating Systems Cornerstone and was more than minor because if left uncorrected, the deficiency could lead to a more significant safety concern. The finding has very low safety significance because it did not represent a loss of system safety function, did not represent the actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the corrective action program component of the problem identification and resolution area because the licensee failed to thoroughly evaluate problems associated with the trending program such that the resolutions address causes and extent of conditions, as necessary.</p>						
Mitigating Systems	02/02/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML12079A224						
(PIM) Failure to Promptly Correct Degraded Electrical Insulation on the Component Cooling Water System Motors						

Cables

The NRC identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to promptly correct conditions adverse to quality. Specifically, the licensee failed to correct degraded conditions associated with the electrical supply cable insulation for the component cooling water motors originally identified in 2003. In addition, the licensee did not have justification for the temporary repairs made to the cables nor for continued operability. The failure of the licensee to promptly correct conditions adverse to quality associated with the loss of full qualification of plant components due to degraded electrical supply cable insulation was a performance deficiency. This performance deficiency was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding has very low safety significance because it did not represent a loss of system safety function, did not represent the actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the resources component of the human performance area because the licensee failed to minimize long-standing equipment issues by correcting these deficiencies.

Mitigating Systems	05/17/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12165A258](#)**(PIM) ALTERNATE SHUTDOWN PROCEDURE DOES NOT ACCOUNT FOR SINGLE WORST CAST SPURIOUS ACTUATIONS**

The inspectors identified a non-cited violation with two examples related to the failure to establish an alternate shutdown capability that met the requirements of License Condition 3.D and the performance criteria in 10 CFR Part 50, Appendix R, Section III.L. Specifically, the licensee failed to establish an alternate shutdown capability that accounted for the effects of an inadvertent safety injection actuation signal and failed to ensure the plant parameters remained similar to those experienced during a loss of normal a.c. power following single spurious component actuations. The failure to meet the performance goals prescribed by the alternate shutdown capability was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this deficiency using Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process. The performance deficiency affected the fire protection defense-in depth strategies involving post-fire safe shutdown systems. Because Appendix F does not address control room fire scenarios, a senior reactor analyst evaluated the significance of this performance deficiency. This finding was evaluated using the process in Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, and was determined to be of very low safety significance because the finding was not a design deficiency, confirmed not to result in loss of functionality, did not result in loss of a system safety function, did not result in loss of the safety function for a single train, did not result in loss of safety function for maintenance rule equipment, and did not potentially affect risk significant external initiating events. Because the original failure to comply with the regulations had occurred longer than three years prior to this inspection, this finding did not reflect current licensee performance.

Mitigating Systems	05/17/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12165A258](#)**(PIM) FAILURE TO PROVIDE ADEQUATE ALTERNATE SHUTDOWN CAPABILITY**

The inspectors identified a non-cited violation of Technical Specification 5.8.1.c for an inadequate fire protection procedure. Specifically, the post fire safe shutdown procedure had several deficiencies that would have prevented

implementation of the alternate shutdown capability for fires in the control/cable spreading rooms. The failure to establish a procedure that could be implemented as written for fires that require operators to abandon the control room was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this deficiency using Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process. The performance deficiency affected the fire protection defense-in depth strategies involving post-fire safe shutdown systems. Because Appendix F does not address control room fire scenarios, a senior reactor analyst evaluated the significance of this performance deficiency. This finding was evaluated using the process in Inspection Manual Chapter 0609, Attachment 4, and was determined to be of very low safety significance because the finding was not a design deficiency, confirmed not to result in loss of functionality, did not result in loss of a system safety function, did not result in loss of the safety function for a single train, did not result in loss of safety function for maintenance rule equipment, and did not potentially affect risk significant external initiating events. This finding had a cross-cutting aspect in the area of human performance associated with decision making because the licensee did not perform effective interdisciplinary reviews during development of the post-fire safe shutdown procedures.

Mitigating Systems	05/17/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12165A258](#)

(PIM) UNTIMELY CORRECTIVE ACTIONS RELATED TO REVISING A POST-FIRE SAFE SHUTDOWN PROCEDURE

The inspectors identified a non-cited violation of License Condition 3.D and the Quality Assurance Plan for failure to take timely corrective action. Specifically, the licensee revised procedure steps to open the breakers for the reactor coolant gas vent system valves in response to Non-cited Violation 05000285/2008009 02; however, the licensee did not revise the procedures until March 24, 2012, after the inspectors requested to review the corrective actions for the 2008 violation. The failure to take timely corrective action to address inadequate procedure guidance to safely shutdown the plant following a fire was a performance deficiency. The finding was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was evaluated using the Fire Protection Significance Determination Process and was determined to be of very low safety significance because of the design of the vent system valves (i.e., three spurious actuations needed to exceed charging pump capability), availability of reliable reactor coolant system pressure and pressurize level indications in the control room, and the ability of the operator to compensate for the deficiency because of their experience and familiarity. This finding had a cross-cutting aspect in the area of human performance associated with decision making because the licensee did not use a systematic process to correct fire protection procedure deficiencies in response to a violation in 2008.

Mitigating Systems	06/07/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12187A790](#)

(PIM) FAILURE TO COMPLY WITH TECHNICAL SPECIFICATIONS 2.3(1)(i) FOR SAFETY INJECTION TANK OPERABILITY

The team identified a non-cited violation for failing to comply with Technical Specification 2.3(1)(i) in that multiple Safety Injection Tanks were connected together simultaneously for filling operations on at least two occasions, once while sluicing on 01/18/2010 and once where all four tanks were connected together on 03/31/2011. This Limiting Condition for Operation requires that all valves, piping and interlocks associated with the Safety Injection Tanks (that are required to function during accident conditions) are operable to maintain Safety Injection Tank operability. Operability of these fill valves is met when each valve is shut. With multiple fill valves open during normal

operations, this technical specification is not met, and there is no remedial action described when more than one Safety Injection Tank is inoperable with the reactor critical, requiring a unit shutdown in accordance with Technical Specification 2.0.1. This action was not performed by the licensee. After identification, the licensee entered this issue into the corrective action program as Condition Reports 2012-01956 and 2012-04815. Failure to comply with technical specifications was a performance deficiency. The performance deficiency is more than minor and therefore a finding because it adversely impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Significance Determination Process Phase 1 and 2 Worksheets, the finding was determined to affect the loss of system safety function and required entry into Appendix A of this process for screening. The senior reactor analyst screened the issue based on a less than one-hour exposure time and determined that the finding was of very low safety significance (Green) because the calculated bounding delta core damage frequency was $1 \text{ E-}8$. The finding has a cross-cutting aspect in the area of work control because the licensee failed to plan work activities to support long-term equipment reliability by not limiting safety system unavailability, specifically the Safety Injection Tanks.

Mitigating Systems	06/07/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML12187A790](#)

(PIM) INADEQUATE PROCEDURES WITH SEVEN EXAMPLES FOR MITIGATING SYSTEMS CORNERSTONE

The team identified a finding of very low safety significance involving a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, with seven examples. Example 1: There is no procedure guidance provided for tripping bistables on a trip unit if required for any instrument failure other than nuclear instrumentation. The annunciator response procedures only provide guidance to bypass the trip unit. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. Example 2: Abnormal Operating Procedure AOP-15, Loss of Flux Indication or Flow Streaming does not provide guidance during a nuclear instrument failure for tripping only those trip units that need to be tripped and bypassing the others. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03141. Example 3: Procedure SO-O-1, Conduct of Operations, and Procedure OPD-04-09, Emergency Operating Procedure / Abnormal Operating Procedure Use and Adherence Procedure each direct the operator to the other procedure for a discussion on the concept of procedure use and adherence in emergency operations procedure usage without addressing procedure use and adherence. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03143. Example 4: There is no procedural guidance in OP-2A, Plant Startup, on how to plot the 1/M data against reactivity and control element assembly position nor on how to determine the Estimated Critical Position 1% ?? After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03138. Example 5: Operating Instruction OI-SI-1, Safety Injection Normal Operation, Attachment 4, Filling SI Tank(s) Using HPSI Pumps, does not contain sufficient guidance for operators to successfully fill the safety injection tank using high pressure safety injection pumps. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03139. Example 6: The licensee failed to include directions in Alarm Response Procedure ARP-CB-10,11/A12, to set the 43FW switch to OFF prior to attempting a manual start of the standby condensate pump when the auto-start feature fails to start the standby pump. This switch must be placed in OFF before the standby condensate pump can be started. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03140. Example 7: The licensee failed to include direction to start an auxiliary lube oil pump prior to attempting to start the main feedwater pump in Abnormal Operating Procedure AOP-28, Auxiliary Feedwater Malfunctions. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03973. These failures to prescribe activities affecting quality by procedures or to include appropriate acceptance criteria are performance deficiencies. Each example is more than minor and is therefore a finding because it adversely affects the procedure quality attribute of the mitigating systems cornerstone and affects the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. These examples either could have significantly affected, or were shown during examination preparation and performance to

have actually affected the operator's ability to perform the activity affecting quality. In accordance with Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, a Phase 1 screening was performed and determined that each example was of very low safety significance (Green) because each example: (1) is not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. These findings have 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 in that licensed operators deviate from procedures when procedures cannot be implemented as written without writing necessary condition reports to fix the deficient procedures.

Mitigating Systems	06/30/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12226A630](#)

(PIM) Failure to Ensure Personnel Meet Minimum Educational Requirements

The inspectors identified a noncited violation of Technical Specification 5.3.1, Facility Staff Qualifications, for failure to ensure electrical group supervisors met the minimum qualification requirements specified in American National Standards Institute N18.1-1971, American National Standard Selection and Training of Nuclear Power Plant Personnel. Fort Calhoun Station entered this performance deficiency into their corrective action program as CR 2012-04543. The failure to ensure that electrical supervisors met minimum standards required by technical specifications for activities affecting quality is a performance deficiency. It is more than minor and is therefore a finding because it adversely affects the human performance attribute of the Mitigating Systems Cornerstone and affects the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, a Phase 1 screening was performed and it was determined that this example was of very low safety significance (Green) because: (1) is not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of work practices because the licensee failed to ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.

Mitigating Systems	11/17/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML12366A158](#)

(PIM) Failure to Ensure that Adequate Equipment was Available to Measure River Level Locally to be Able to Comply with an Abnormal Operating Procedure

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, for the licensee's failure to ensure that adequate equipment was available to measure river level locally to comply with an abnormal operating procedure. Specifically, the length of the weighted tape measure used to measure river level locally was inadequate to ensure that the entire range of river levels needed for operation of the plant would be covered. The licensee entered the issue into its corrective action program for evaluation and review. The performance deficiency was determined to be more than minor because it is associated with the Mitigating Systems Cornerstone attribute of Equipment Performance and it adversely affects the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was screened as very low safety significance (Green) because the licensee maintained an adequate mitigation capability and it would not be characterized as a loss of control. The inspectors determined the 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

Mitigating Systems	11/17/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12366A158](#)

(PIM) Inadequate Design Basis Documentation

The NRC identified a non-cited violation of 10 CFR 50 Appendix B, Criterion V, Procedures, for failing to follow a quality procedure. Specifically; PED-QP-13 Design Basis Document Control, requires FCS to update and maintain their Design Bases Documents. The license has failed to maintain these design documents. Some examples include PLDBD-51 Seismic Criteria where the configuration of the Steam Generator supports were not accurately described, and PLDBD-ME-10 Pipe Stress and Supports where the piping design code classification for Main Steam is incorrect. The licensee entered the issue into its corrective action program for evaluation and review. The performance deficiency is more than minor because if left uncorrected it would have the potential to lead to a more significant safety concern. The finding was determined to affect the Initiating Events, Mitigation Systems, and Barrier Cornerstones using Inspection Manual Chapter 0609.04, Initial Characterization of Findings. The finding was characterized as having very low safety significance (i.e., Green) using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) For Findings At-Power, because all logic questions for the applicable cornerstones were answered in the negative. The finding is assigned a cross-cutting aspect in the area of Human Performance, in the component of Resources because the licensee failed to ensure that personnel, equipment, procedures, and other resources, specifically those necessary for complete, accurate and up-to-date design documentation, were available and adequate to assure nuclear safety. H.2(c)

Mitigating Systems	12/31/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13045B055](#)

(PIM) Failure to Adequately Implement the Maintenance Rule Program

The team identified a Green noncited violation of 10 CFR 50.65, Requirements for monitoring the effectiveness of maintenance at nuclear power plants which states, in part, that the licensee shall monitor the performance or condition of structures, systems, or components, against licensee-established goals, in a manner sufficient to provide reasonable assurance that these structures, systems, and components are capable of fulfilling their intended functions. These goals shall be established commensurate with safety and, where practical, take into account industry-wide operating experience. Specifically, from March of 2012 until October of 2012, the licensee allowed the maintenance rule program to deteriorate by not performing initial screenings in a timely fashion (some were being done months later) and the actual evaluation of the equipment status was not being done at all for eight months. Consequently, several components including electrical relays and electrical load centers were not characterized in a timely fashion. Also, the licensee was not implementing the operating experience program as required by this regulation. The licensee chose to stop performance of level 1 and level 2 operating experience evaluations by direction from the senior management in August of 2012 because of concerns over resources for recovery. Several examples where operating experience was not done correctly that subsequently led to equipment issues included the containment spray pump low oil issues (ACA 2008-5695), vendor manual updates, and loose fasteners (both electrical and mechanical) from San Onofre Nuclear Generating Station Licensee Event Reports 3612007005, 3612007006, and 3612008006. This finding was entered into the licensee's corrective action program as Condition Report CR 2012-17572. The team determined that the failure to adequately implement the maintenance rule was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because if left uncorrected it could lead to a more serious concern. Using Manual Chapter 0609, Attachment 4, Significance Determination Process router on Table 3, it sends the user to Appendix G for Shutdown Operations Significance Determination Process. Using Checklist 4 of Appendix G for the given plant conditions, the finding was determined to have very low safety significance (Green) because the finding did not 1) increase the likelihood of a

loss of RCS inventory, or 2) degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed, or 3) degrade the licensee's ability to recover decay heat removal once it is lost. This finding was determined to have a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee did not use conservative assumptions in decision making and did not identify the possible unintended consequences of removing personnel from a job without a replacement and the corresponding impact on those programs, and determine how to improve future decisions [H.1(b)]

Mitigating Systems	03/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13070A399](#)

(PIM) 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 5.0×10^{-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)]

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML13197A261						

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML13197A261						

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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)]

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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)]

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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 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.

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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.

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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.

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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.

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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.

Mitigating Systems	05/01/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13144A772](#)

(PIM) 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.

Mitigating Systems	05/29/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13192A501](#)

(PIM) 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.

Mitigating Systems	05/29/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13192A501](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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 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 required 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML13197A261						
(PIM) Failure to Establish Adequate Instructions for Restoring Temporary Modifications						
<p>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)]</p>						
Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML13197A261						
(PIM) Failure to Establish and Document Basis for Test Acceptance Criteria						
<p>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</p>						

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 .

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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)]

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML13197A261						
(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML13197A261						
(PIM) 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.

Mitigating Systems

06/10/2013

FCS

Green

*SCWE: N

*HP: N

*PIR: Y

Docket/Status: 05000285 (C)

Open: [ML13197A261](#)**(PIM) 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.

Mitigating Systems

06/10/2013

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML13197A261](#)**(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	06/10/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Complete all Testing for a Condition Averse to Quality

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, for the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to fully implement a corrective action from a previous breaker issue, which was to perform current injection testing for the 480 Vac 1B4A bus breakers without the full function test kit. Testing with the full function test kit would not identify if zone select interface jumpers were incorrectly installed. The licensee performed current injection testing without the full functional test kit on the 480 Vac load center main breaker 1B4A and the bus tie breaker BT 1B4A. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-13262. The licensee's failure to promptly identify and correct a condition adverse to quality was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team evaluated the finding using Inspection Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, Checklist 4, PWR Refueling Operation: RCS level >23 or PWR Shutdown Operation with Time to Boil > 2 hours and Inventory in the Pressurizer, dated May 25, 2004, and determined that the finding is of very low safety significance (Green) because the finding did not require a quantitative risk assessment because adequate mitigating equipment remained available. The finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee did not ensure that the proposed action was safe in order to proceed, rather than unsafe in order to disapproved the action.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

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

The team identified multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, for the licensee's failure to control deviations from design standards. Specifically, the licensee failed to control deviations from the design basis requirements for structural calculations related to the reactor coolant system. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-19878, 2013-18361, 2013-20281, and 2013-14726. The failure to control deviations from quality standards as required by 10 CFR Part 50, Appendix B, Criterion III, was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-

service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. There was no cross cutting aspect assigned to this finding because this issue does not reflect present licensee performance.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Correct Overstressed Components

The team identified multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings. Specifically, the licensee's failure to follow station procedures for corrective actions, operability, and calculation preparation for instances where the interim operability procedure was invoked for degraded conditions identified with piping and pipe supports. As a result, the degraded conditions were untimely and poorly documented. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-03598. The failure to provide adequate acceptance criteria for an activity affecting quality was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the human performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, and guidance from the Office of Nuclear Reactor Regulation, Division of Engineering technical staff for issues where the inputs to calculations deviated from approved standards, the finding was determined to have very low safety significance (Green) because: (1) the Office of Nuclear Reactor Regulation technical staff provided the team with the following input: Office of Nuclear Reactor Regulation technical staff didn't identify gross exceedances that would render the evaluated component as inoperable or unable to perform its safety function; (2) it was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; and (3) it did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with work practices component because the licensee failed to define and effectively communicate expectations regarding compliance with station procedures.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Evaluate the Effects of Modifying the Turbine Driven Auxiliary Feedwater Pump

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, associated with the licensee's failure to conduct an adequate evaluation of the impacts of modifying the turbine driven auxiliary feedwater pump (FW 10) during all modes of operation. Specifically, the licensee instituted an engineering change package to modify the pump from a variable speed to a constant speed setting and did not consider the dynamic system changes that could affect the pump operation for all design basis events and operating conditions. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-10465. The failure to evaluate the effects of modifying the turbine driven auxiliary feedwater pump from a variable speed to a constant speed for all modes of operation was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the configuration control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did

not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision making. Specifically, the licensee did not reanalyze the pump performance parameters to identify any potentially adverse effects of changing the pump to a constant speed control.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Follow Operability Procedure

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, associated with the licensee's failure to follow Station Procedure NOD-QP-31, Operability Determination Process. Specifically, Step 4.3.15 required, in part, that, A positive determination of operability must be justified, including a technical discussion of why the concern identified does not prevent the item from fulfilling its intended safety function. However, the team identified that the operability determination associated with a component identified as beyond its specified service life lacked adequate technical justification for why the item was operable with the degraded or nonconforming condition. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-12255. The failure to properly assess and document the basis for operability when a degraded or nonconforming condition was identified was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding involving inadequate operability determinations occurred while in a shutdown condition, the team used Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, and determined the finding to have very low safety significance (Green) because the finding: (1) did not increase the likelihood of a loss of reactor coolant system inventory; (2) did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed; and (3) did not degrade the licensee's ability to recover decay heat removal once it was lost. This finding has a cross-cutting aspect in the area of human performance, associated with the decision-making component, because the licensee failed to use conservative assumptions in decision making when performing operability determinations.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Furnish Evidence of an Activity Affecting Quality

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVII, Quality Assurance Records, associated with the licensee's failure to furnish evidence of an activity affecting quality associated with the 480 V breakers. Specifically, the licensee failed to maintain design documents that detailed the correct Digital Low Resistance Ohm (DLRO) values required for ensuring proper connections between the Square D Masterpact NW breaker/cradle assemble to the GE AKD-5, 480 V cubicle stabs. The licensee re-generated acceptance criteria to address this issue. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-04032. The licensee's failure to furnish evidence that showed the required DLRO values ensured proper connections between the Square D Masterpact NW breaker/cradle assemble to the GE AKD-5, 480 V cubicle stabs was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone, and it directly affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events

to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance, associated with the resources component, because the licensee failed to maintain complete, accurate, and up-to-date design documentation. Specifically, the licensee did not maintain the engineering process for determining acceptable DLRO values.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Incorporate Design Requirements for Switchgear Room Cooling

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, associated with the licensee's failure to fully incorporate applicable design requirements into the plant design. Specifically, from initial construction until present, the licensee has failed to incorporate a ventilation system for the vital switchgear rooms that was capable of maintaining room temperature below design requirements under all design conditions. The failure to fully incorporate applicable design requirements was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone, and it directly affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the problem and, consequently, the resolution did not identify the extent of cause as necessary.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Perform Adequate Extent of Condition Reviews

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

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

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Perform Adequate Operating Experience Reviews

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the licensee's programmatic failure to conduct adequate operating experience reviews for root cause evaluations in accordance with Station Procedure FCSG-24-4, Condition Report and Root Cause Evaluation, Revision 5. Specifically, during the course of the inspection, the team identified four specific examples where licensee staff failed to conduct a thorough operating experience review while performing a root cause analysis to determine whether the same or similar problems have occurred at Fort Calhoun or within the industry. Therefore, this finding is indicative of a programmatic issue. Thorough operating experience reviews are important for the construction of corrective actions to prevent the issues from recurring and help determine extent of condition and/or generic implications from the issue. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-14205. The licensee's programmatic failure to conduct adequate operating experience reviews for root cause evaluations was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because if left uncorrected it has the potential to lead to a more significant safety concern. Specifically, if the licensee does not thoroughly evaluate operating experience to determine whether the same or similar problems have occurred at the Fort Calhoun Station or within the industry, then effective corrective actions to prevent the issues from recurring may not be implemented and an adequate extent of condition and/or generic implications from the issue may not be identified. This finding was associated with the Mitigating Systems Cornerstone. Using Inspection Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, Checklist 4, PWR Refueling Operation: RCS level >23 or PWR Shutdown Operation with Time to Boil > 2 hours and Inventory in the Pressurizer, dated May 25, 2004, this finding was determined to be of very low safety significance (Green) because the finding did not require a quantitative risk assessment because adequate mitigating equipment remained available. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the operating experience component because the licensee did not use operating experience information, including vendor recommendations and internally generated lessons learned, to support plant safety by implementing and institutionalizing operating experience through changes to station processes, procedures, equipment, and training programs.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Translate Appendix R License Exemptions into the Plant's Fire Protection Program Design

The team identified a non-cited violation of License Condition 3.D, Fire Protection Program, for the failure to translate Appendix R license exemptions into the fire protection program design. Specifically, the licensee failed to

translate the exemption from 10 CFR Part 50, Appendix R, Section III.G, that was granted July 3, 1985, for the Intake Structure, Fire Area 31, into a design that met those exemptions. The licensee did not protect the cables for both pumps AC-10A and AC-10B from any credible fire in the intake structure. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-16201. The failure to translate Appendix R license exemptions into the fire protection program design was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the protection against external factors attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process, dated September 20, 2013, Step 1.3, the team determined that the reactor would have been able to reach and maintain cold shutdown, therefore, this finding was determined to have very low safety significance (Green). There was no cross-cutting aspect assigned to this finding because the original license exemption request and grant was over three years ago and this issue does not reflect present licensee performance.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Translate Design Sluice Gate Leakage Into Operating Procedure

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, associated with the licensee's failure to correctly translate the acceptance limit of intake sluice gate leakage values into procedures. Specifically, the acceptance limit from the licensee's testing was applied to 1000 feet of intake level and not to the 983 to 988 feet operating band prescribed in Section I Flooding, of Station Procedure AOP-01, Acts of Nature. This issue has been entered into the corrective action program as Condition Report CR 2013-15287. The failure to fully incorporate applicable design requirements was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, Attachment 1, Checklist 4, PWR Refueling Operation: RCS level > 23' OR PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer, dated May 25, 2004, the team determined that because this finding did not increase the likelihood of a loss of reactor coolant system inventory; did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory; and did not degrade the licensee's ability to recover decay heat removal, this finding did not require a Phase 2 or 3 analysis as stated in Checklist 4. Therefore, the finding is determined to have very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Inadequate Corrective Action for Non-Seismic Category I Piping

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to take adequate corrective actions regarding non-Category I (seismic) piping in the intake structure raw water vault. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-04782, 2013-04956, 2013-09256, 2013-10626, and 2013-22090. The failure to take adequate corrective action regarding non-Category I (seismic) piping in the intake structure raw water vault is a performance deficiency. The performance deficiency is more than minor, and therefore a finding, as it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent

undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process for Findings At-Power, dated July 1, 2012, this finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. The finding has a cross-cutting aspect in the area of human performance associated with the decision-making component such that the licensee demonstrates that nuclear safety is an overriding priority. Specifically, that the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Inadequate Corrective Actions to Prevent Repetition of a Significant Condition Adverse to Quality, a White MSPI SSFF Degrading Trend

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the licensee's approval of Root Cause Analysis 2013-03424, Revision 0 and Revision 1, MSPI Safety System Functional Failures Degrading Trend, which did not assure corrective actions to prevent repetition of a significant condition adverse to quality. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-00584 and 2013-14614. The licensee's failure to establish measures to assure that the cause of the degrading trend in MSPI safety system functional failures would be promptly identified and action taken to preclude repetition in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because the failure to correct the cause and preclude the repetition of the cause would have the potential to lead to a more significant safety concern. Specifically, failure to identify the correct cause and preclude repetition would lead to a high frequency of safety system functional failures. This finding was associated with the mitigating systems cornerstone. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, the finding was determined to be of very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the problem and, consequently, the resolution did not identify the extent of cause as necessary.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Inadequate Operability Determination Due to Failure to Consider an Unavailable Raw Water Pump

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, involving the licensee's failure to follow procedures when evaluating the impact of the removal of the motor for raw water Pump B on the intake cell level control during a potential site flood. Specifically, on June 18,

2013, the operability determination for Corrective Action 018 of Condition Report CR 2011-10302 was not performed in accordance with Station Procedure NOD-QP-31, Operability Determination Process, Step 4.3.15, and consequently, failed to evaluate the impact of having only two diversely powered available raw water pumps during a site flood on shutdown cooling system operability. This issue has been entered into the corrective action program as Condition Report CR 2013-15270. The failure to properly assess and document the basis for operability when a degraded or nonconforming condition was identified was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with the work control component. Specifically, the team identified that the licensee failed to adequately plan and coordinate work activities, in which, interdepartmental coordination was necessary to assure plant and human performance.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Inadequate Procedure for Intake Cell Level Control During a Flooding Event

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the licensee's failure to maintain an adequate procedure for site flooding. Specifically, since June 2013, the licensee failed to include appropriate quantitative or qualitative acceptance criteria for Section I Flooding, of Station Procedure AOP-01, Acts of Nature, on how to proceed if steps taken to maintain intake cell level less than 988 feet were unsuccessful. This issue has been entered into the corrective action program as Condition Report CR 2013-15289. The licensee's failure to maintain an adequate procedure for maintaining intake cell level during a flood was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, Attachment 1, Checklist 4, PWR Refueling Operation: RCS level > 23' OR PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer, dated May 25, 2004, the finding is determined to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of reactor coolant system inventory; did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory; and did not degrade the licensee's ability to recover decay heat removal, this finding did not require a Phase 2 or 3 analysis as stated in Checklist 4. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

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

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, associated with the licensee's failure to follow Station Procedure NOD-QP-31, Operability Determination Process, to adequately assess and document the basis for operability when a nonconforming condition was identified. Specifically, the licensee did not determine the effect of a ruptured 6" stub in the raw water system with respect to the safety function provided by the raw water system during a design seismic event. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-13410 and 2013-13634. The failure to adequately assess and document the basis for operability regarding seismic raw water piping potentially interacting with the nonseismic service building is a performance deficiency. The performance deficiency is more than minor, and therefore a finding, as it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process for Findings At-Power, dated July 1, 2012, this finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the problem such that the resolutions address causes and extent of conditions. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Non-conservative Criteria in Operability Procedure

The team identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the licensee's failure to develop an adequate procedure for assessing operability of degraded piping and pipe supports. Specifically, Station Procedure PED-MEI-17, "Interim Operability Criteria," a procedure the licensee used to evaluate CQE and L-CQE piping and piping supports that are found to exceed design basis requirements, was inadequate for this application because it did not contain all applicable constraints. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-22342. The failure to use an adequate procedure for evaluating degraded or nonconforming pipe and pipe supports was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, and guidance from the Office of Nuclear Reactor Regulation, Division of Engineering technical staff for issues where the inputs to calculations deviated from approved standards, the finding was determined to have very low safety significance (Green) because: (1) the Office of Nuclear Reactor Regulation technical staff provided the team with the following input: Office of Nuclear Reactor Regulation technical staff didn't identify gross exceedances that would render the evaluated component as inoperable or unable to perform its safety function; (2) it was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; and (3) it did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. There was no cross-cutting aspect assigned to this finding because this issue does not reflect present licensee performance.

Mitigating Systems	07/19/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Programmatic Failure to Evaluate Safety Impact of Degraded Conditions During Use of Interim Operability Criteria

The team identified multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings. Specifically, the licensee's failure to follow station procedures for corrective actions, operability, and calculation preparation for instances where the interim operability procedure was invoked for degraded conditions identified with piping and pipe supports. As a result, the degraded conditions were untimely and poorly documented. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-03598. The failure to provide adequate acceptance criteria for an activity affecting quality was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the human performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated July 1, 2012, and guidance from the Office of Nuclear Reactor Regulation, Division of Engineering technical staff for issues where the inputs to calculations deviated from approved standards, the finding was determined to have very low safety significance (Green) because: (1) the Office of Nuclear Reactor Regulation technical staff provided the team with the following input: Office of Nuclear Reactor Regulation technical staff didn't identify gross exceedances that would render the evaluated component as inoperable or unable to perform its safety function; (2) it was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; and (3) it did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance associated with work practices component because the licensee failed to define and effectively communicate expectations regarding compliance with station procedures.

Mitigating Systems	02/15/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

(PIM) Failure to Adequately Design Anchorage for Containment Spray and Raw Water System Pipe Supports

Several examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, were identified involving the failure to ensure the adequacy of the anchorage for several raw water system and containment spray system pipe supports. Specifically the anchorage design was non-conservative with respect to the design basis requirements. The licensee entered these issues into the corrective action program as CR 2013-05304 and performed an operability determination as immediate actions. Long term actions to resolve the errors in the calculations are documented in the condition report. The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of the containment spray system and raw water system. Using Inspection Manual Chapter 0609, Attachment 4 Initial Characterization of Findings, and Appendix A The Significance Determination Process (SDP) for findings at-power, both dated 6/19/12, the inspectors determined the performance deficiency affected the mitigating systems cornerstone and screened to Green because the finding affected the design and qualification of a mitigating component but remained operable. The inspectors used the at-power SDP because the condition existed since construction and while the plant was predominantly at power. The inspectors determined there was no cross-cutting aspect associated with this finding because the calculations were from the 1980's and therefore were not reflective of current performance. (Section 40A5.1).

Mitigating Systems	02/15/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

(PIM) Failure to Adequately Implement Design Requirements for Containment Air Cooler Pipe Supports

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to ensure the adequacy of the U-bolts for containment air cooler pipe supports VAS-1 and VAS-2. Specifically the U-bolt design was non-conservative with respect to the design basis requirements. The licensee entered these issues into the corrective action program as CR 2013-03722. The licensee revised the calculation to support operability. In addition, the licensee generated engineering change EC59570 to fix the degraded VAS-1 and VAS-2 supports. The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of several safety injection tank valves. Specifically, the one-directional U-bolts for VAS-1 and VAS-2 are not designed to withstand two-directional loading and the condensate drain piping line has the potential to adversely impact the safety injection tank discharge isolation valves HCV-2934 and HCV-2974 during a design basis event. The licensee updated calculation FC05918 and provided an operability evaluation to address the degraded condition. The inspectors reviewed the information and did not find any issues. Using Inspection Manual Chapter 0609, Attachment 4 Initial Characterization of Findings, and Appendix A The Significance Determination Process (SDP) for findings at-power, both dated June 19, 2012, the inspectors determined performance deficiency affected the mitigating systems cornerstone and screened to Green because the finding affected the design and qualification of a mitigating SSC but remained operable. The inspectors used the at-power SDP because the condition existed since construction and while the plant was predominantly at power. The inspectors determined there was no cross-cutting aspect associated with this finding because the calculation was from the 1980s, and therefore was not reflective of current performance.

Mitigating Systems

02/15/2014

FCS

Green

*SCWE: N

*HP: N

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

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

Two examples of a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, were identified. The first example involved the failure to establish procedures or Technical Specifications to accomplish required HPSI injection flow balancing. The second example involved the failure to provide controls or testing to ensure that replacement parts for HPSI injection valves were suitable for the application and were capable of supporting the safety-related functions of the HPSI system. The licensee has since implemented Engineering Change 59874 which included throttling of the HPSI loop injection valves. This change was completed on August 20, 2013, restoring the original plant design and overcoming the configuration control errors introduced on three of the eight injection valves. Post-work testing for the completed modification included flow balance testing for the HPSI loop injection lines. The inspectors reviewed the results of this testing and determined that the UFSAR assumptions regarding balanced loop flows were adequately addressed by licensee corrective actions. This finding was more than minor because it adversely impacted the design control attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors reviewed NRC IMC 0609, Attachment 4, Initial Characterization of Findings, Table 3 SDP Appendix Router. While this issue was identified during a refueling outage, the inspectors determined that the majority of the exposure time for this violation occurred with the reactor at power. As such, the inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, The SDP for Findings at-Power, Appendix A, Exhibit 2, Mitigating Systems Screening Questions. The inspectors answered yes to the question of Does the finding represent a loss of system and/or function? The inspectors determined the finding required a detailed risk evaluation per IMC 0609 Paragraph 6.0, because the operability of the high pressure safety injection system (both trains) was in question. A Region IV senior reactor analyst performed a detailed risk evaluation and determined the flow imbalance did not result in a loss of safety function. Since the high pressure safety injection system was capable of meeting the functional success criteria, there was no quantifiable change to the core damage frequency and therefore was determined to be of very low safety significance (Green). The inspectors determined there was no cross-cutting aspect associated with this finding because events related to identification of

needed procedures and specifications occurred in the 1970 s and are not indicative of current performance. Additionally, the errant replacement of parts of three HPSI injection valves occurred between 1993 and 2006, and are also not indicative of current performance. (Section 40A3.4).

Mitigating Systems	02/15/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

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

A Severity Level IV non-cited violation of 10 CFR 50.59, Changes, Tests, and Experiments, and an associated Green finding was identified involving the failure to request a license amendment for a facility change that required a change to the Technical Specifications. This issue is also associated with a Green finding related to the licensee's failure to follow Procedure NOD-QP-3, 10 CFR 50.59 and 10 CFR 72.48 Reviews, and Procedure FCSG-23, 10 CFR 50.59 Resource Manual, both of which require submittal of a license amendment request prior to making a facility change that requires a change to Technical Specifications. The licensee initiated CR 2014-01029 on January 23, 2014, to document this violation and track corrective actions. This performance deficiency was considered to be of more than minor safety significance because it was associated with the procedure quality attribute of the mitigating systems cornerstone and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to follow station procedures for the 10 CFR 50.59 process caused the Technical Specifications to become insufficient to ensure that the limiting conditions for operation will be met. Using Inspection Manual Chapter 0609 Appendix G, Checklist 4, the inspectors determined that the finding did not result in the loss of any accident mitigation capability and did not require a quantitative risk assessment. This finding was determined to be of very low risk significance. This performance deficiency was also determined to be subject to traditional enforcement because it impeded the regulatory process, in that the failure to submit a license amendment and add required surveillance testing was in violation of 10 CFR 50.59(c)(1)(i) and caused the NRC-approved Technical Specifications to be out of alignment with the safety analysis for the facility. This violation is associated with a finding that has been evaluated by the SDP and communicated with an SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider the regulatory process impact. Thus, although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the associated finding. This violation was determined to be a Severity Level IV violation, because it is consistent with the examples in Paragraph 6.1.d of the NRC Enforcement Policy. The finding had a cross-cutting aspect in the training aspect of the human performance cross-cutting area because the licensee's staff failed to understand and misapplied NRC generic guidance related to discovery of inadequate Technical Specifications.

Mitigating Systems	02/15/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

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

A non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified involving the failure to translate the High Pressure Safety Injection (HPSI) pump design and runout characteristics to design documents such as the Updated Safety Analysis Report or design calculations. On June 21, 2013, the licensee completed Engineering Change 59874, which permanently installed flow-limiting orifices in the discharge line of each pump, effectively preventing HPSI runout conditions from occurring for all plant conditions. This finding was more than minor because it adversely impacted the design control attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors reviewed NRC IMC 0609, Attachment 4, Initial Characterization of Findings, Table 3 SDP Appendix Router. While this issue was identified during a refueling outage, the inspectors determined that the majority of the exposure time for this violation occurred with the reactor at power. As

such, the inspectors determined the finding should be evaluated using the SDP in accordance with IMC 0609, The Significance Determination Process (SDP) for Findings at-Power, Appendix A, Exhibit 2, Mitigating Systems Screening Questions. The finding required a detailed risk evaluation because the high pressure safety injection system was inoperable for some of the large break loss of coolant accident scenarios (at reactor pressures less than 100 psi). A Region IV senior reactor analyst performed a bounding detailed risk evaluation. The change to the core damage frequency was $8E-8$ /year and, therefore, determined to be of very low safety significance (Green). The dominant core damage sequences included loss of coolant accidents where the high and low pressure safety injection systems failed during recirculation. The non-degraded low pressure safety injection system contributed to minimize the risk. The inspectors determined there was no cross-cutting aspect associated with this finding because events related to identification of needed procedures and specifications occurred in the 1970s and are not indicative of current performance. (Section 40A3.2).

Mitigating Systems	02/15/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

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

A non-cited violation of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings was identified involving the licensee's failure to complete a 10 CFR 50.59 screening that met the requirements of Procedure NOD-QP-3, 10 CFR 50.59 and 10 CFR 72.48 Reviews, Revision 37. The licensee's staff subsequently re-performed the 50.59 screening on November 29, 2013, and determined that a 10 CFR 50.59 evaluation was required. The NRC staff reviewed the 10 CFR 50.59 screening and evaluation and determined that they had been properly performed, and that a license amendment request was not required prior to implementation of the activity. The licensee documented this procedural violation in CR 2014-01357 on January 29, 2014. This performance deficiency was considered to be of more than minor safety significance because it was associated with the design control attribute of the mitigating systems cornerstone and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to follow station procedures for the 10 CFR 50.59 process prevented the licensee's staff from evaluating the adverse impacts of the change on the facility. Using Inspection Manual Chapter 0609 Appendix G, Checklist 4, the inspectors determined that the finding did not result in the loss of any accident mitigation capability and did not require a quantitative risk assessment. This finding was determined to be of very low risk significance. The inspectors determined that this finding had a cross-cutting aspect of conservative bias in the human performance area, because the licensee's staff ensured that the proposed design change was safe in order to proceed rather than unsafe to stop [H.14]. (Section 40A3.8).

Mitigating Systems	03/14/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14115A411](#)

(PIM) Failure to Follow Operability Procedure

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

was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding involving inadequate operability determinations occurred while in a shutdown condition, the team used Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, and determined the finding to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of reactor coolant system inventory, the finding did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed, and the finding did not degrade the licensee's ability to recover decay heat removal once it was lost. This finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision making when performing operability determinations.

Mitigating Systems	03/14/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14115A411](#)

(PIM) Failure to Promptly Identify and Correct a Condition Adverse to Quality

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, involving the failure to promptly identify and correct a condition adverse to quality. Specifically, from August 2005 to July 15, 2013 the licensee failed to promptly identify and correct inadequate Class 1 structures wall thickness deficiencies to protect systems and components contained within from tornado generated missiles. The licensee resolved this issue by implementing changes to the facility through a licensing amendment that was reviewed and approved by the NRC. This issue has been entered into the corrective action program as Condition Report CR 2013-14363. The licensee's failure to promptly identify and correct conditions adverse to quality was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process for Findings at Power, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather event. The team determined this finding has a cross-cutting aspect in the area of human performance associated with the decision-making component involving the failure to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action. Specifically, in 2005 the licensee identified that wall thicknesses for areas of the auxiliary building and intake structure were less than design requirements. The licensee failed to enter this deficiency into the corrective action process and inappropriately used an alternate acceptance criteria that was not part of the facility licensing basis.

Mitigating Systems	03/14/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14115A411](#)

(PIM) Inadequate Temporary Modification to Protect Against Tornado Generated Missiles

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, associated with the licensee's failure to provide adequate instructions or procedures for the construction

of temporary barriers to protect raw water pump electrical pull boxes PB-128T and PB-129T from tornado generated missiles in temporary modification EC 60183. The licensee addressed this issue by modifying the temporary barriers. This issue has been entered into the licensee's corrective action program as Condition Report CR 2013-13955. The failure to provide adequate instructions for construction of temporary barriers to protect the raw water pump electrical pull boxes from tornado generated missiles was a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding involving inadequate operability determinations occurred while in a shutdown condition, the team used Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process, and determined the finding to have very low safety significance (Green) because the finding did not increase the likelihood of a loss of reactor coolant system inventory, the finding did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed, and the finding did not degrade the licensee's ability to recover decay heat removal once it was lost. This finding has a cross-cutting aspect in the area of human performance associated with the work practices component because the licensee failed to ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported.

Mitigating Systems	03/31/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14134A410](#)

(PIM) Failure to Check the Adequacy of the Design for the Reactor Vessel Head Structural Elements

The inspectors identified a green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, for the licensee's failure to ensure the design of the Containment Internal Structure (CIS) for the reactor vessel head stand met Current Licensing Basis (CLB) requirements. Specifically the design did not meet the CLB requirements as defined in Updated Safety Analysis Report. The failure to ensure the design of structures, systems, or components meet their Current Licensing Basis is a performance deficiency. The licensee documented the finding in the corrective action program as Condition Report 2014-04218. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the failure to ensure structures, systems, or components meet their Current Licensing Basis design requirements could lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix G, Shutdown Operations Significance Determination Process (SDP), Attachment 1, Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for Both PWRs and BWRs, dated May 25, 2004, and determined that the finding is of very low safety significance (Green) because the finding did not require quantitative assessment. The finding has a crosscutting aspect in the area human performance because the licensee did not ensure the CIS at elevation 1045 ft. for storage of the reactor vessel head maintained adequate design margin.

Mitigating Systems	03/31/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14134A410](#)

(PIM) Failure to Correct Conditions Adverse to Quality in the Containment Internal Structure and Auxiliary Building

The inspectors identified multiple examples of a green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to promptly identify and correct conditions adverse to quality. Specifically, the licensee failed to take appropriate corrective action since 1997 when it was identified that the containment internal structure and auxiliary building had discrepant documentation between the size of structural beams and columns shown in drawings versus calculations. Subsequently, the licensee evaluated the non-conformances to provide a reasonable assurance of operability, and planned corrective actions to restore the structures to design basis requirements. The failure to correct conditions adverse to quality is a performance deficiency. The licensee documented the finding in the corrective action program as Condition Report 2014-04219. The performance deficiency was determined to be more than minor because it adversely affected the Mitigating Systems cornerstone

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

Mitigating Systems	03/31/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14134A410](#)

(PIM) Failure to Follow an Immediate Operability Determination Procedure

The inspectors identified a green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the licensee's failure to follow an operability determination procedure. Upon identifying that a relief valve had not been tested within the required frequency the licensee failed to adequately address how this deficiency could affect the safety function of the component. Specifically, the licensee concluded the valve was operable based only on the consideration that it was not leaking. Subsequently, the licensee performed an evaluation providing adequate reasonable assurance of operability. The licensee documented the finding in the corrective action program as Condition Report 2014-03055. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the failure to determine the ability of a structure, system, or component to perform its current licensing basis function in accordance with station procedures could lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) For Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because it did not affect the design or qualification of a mitigating SSC, represent a loss of system function or loss of function of single or multiple trains of equipment. The finding has a cross-cutting aspect in the human performance area because the licensee did not create and maintain complete, accurate, and up-to-date documentation.

Mitigating Systems	03/31/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14134A410](#)

(PIM) Failure to Implement an Adequate PMT Procedure

The inspectors identified a green non-cited violation of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, involving the failure to establish and implement an adequate procedure for Post Maintenance Testing (PMT). Specifically, following maintenance on a raw water strainer the licensee's PMT failed to verify the flow capacity through the system required to determine operability. The failure to establish an adequate procedure to determine PMT is a performance deficiency. Subsequently, the licensee performed an adequate PMT verifying system flows were adequate and documented the deficiency in the corrective action program as Condition Report 2014-03084. The performance deficiency is more-than-minor and therefore a finding because inadequate PMT following maintenance activities could adversely affect the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) For Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because the finding did not affect the design or qualification of a mitigating SSC, represent a loss of system function or loss of function of single or multiple trains of equipment. The finding has a crosscutting aspect in the area of problem identification and resolution because the licensee did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance.

Mitigating Systems	03/31/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML14134A410						
(PIM) Failure to Perform an Immediate Operability Determination						
<p>The inspectors identified a green non-cited violation of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the licensee's failure to perform an operability determination as required by NOD-QP-31, <i>Operability Determinations Process (ODP)</i>. Specifically, following the failure of an auxiliary building ventilation damper to open the licensee failed to evaluate the operability of equipment potentially impacted. The failure to perform an immediate operability determination is a performance deficiency. The licensee documented the finding in the corrective action program as Condition Report 2014-00211. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected the failure to determine the ability of a structure, system, or component to perform its current licensing basis function in accordance with station procedures could lead to a more significant safety concern. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) For Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, dated June 19, 2012, and determined that the finding is of very low safety significance (Green) because the finding did not affect the design or qualification of a mitigating SSC, represent a loss of system function or loss of function of single or multiple trains of equipment. The finding has a crosscutting aspect in the area human performance because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values.</p>						
Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML14318A886						
(PIM) Failure to Accurately Model Flow Path for External Flood Mitigation						
<p>A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to accurately model cell level control of river water during external flooding events. Specifically, the licensee failed to account for losses due to the physical obstructions of trash racks for inflowing river water, the decreased withdrawal rate of the raw water pumps due to fouling across the traveling screens, and a bounding inleakage rate for the sluice gates when the river level is at maximum level of 1014 mean sea level and the intake cell levels are at minimum level of 976.9. The licensee entered this issue into its corrective action program as Condition Report 2014-09155, performed an operability determination, and initiated action to update station calculations related to intake cell level control. This performance deficiency was more than minor, and therefore a finding, because if left uncorrected, the finding would have the potential to lead to a more significant safety concern. Specifically, the failure to accurately model flow in and out of the cells could adversely affect the external flooding mitigation strategy beyond previously identified equipment capacities and operator actions. This finding was associated with the <i>Mitigating Systems Cornerstone</i>. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding has a cross-cutting aspect in the area of problem identification and resolution, operating experience, in that the licensee failed to incorporate relevant internal operating experience related to previous NRC inspection into Calculation FC08081.</p>						
Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y

Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Failure to Adequately Perform an Operability and 50.59 Evaluation

A non-cited violation of 10 CFR 50.59, Changes, Tests, and Experiments, and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified involving the failure to evaluate and implement adequate compensatory measures for a degraded condition associated with raw water pump AC-10C. Specifically, the licensee's operability determination established a compensatory measure to place pump AC-10C in pull-to-lock, contrary to the system single failure analysis design criteria described in the Updated Safety Analysis Report. The licensee entered this issue into its corrective action program as Condition Reports 2014-09104 and 2014-08515 and performed an operability evaluation and associated 10 CFR 50.59 evaluation that used an acceptable compensatory measure to pump water from affected manholes prior to affecting the degraded power feeder cable for raw water pump AC-10C. The NRC evaluated this performance deficiency as both a reactor oversight process finding and a traditional enforcement violation. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of problem identification and resolution with an aspect of evaluation because the licensee failed to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. In addition, because this performance deficiency had the potential to impact the NRC's ability to perform its regulatory function in that the failure to obtain a license amendment for a change that could result in a malfunction of a structure, system or component with a different result than previously evaluated in the Updated Safety Analysis Report is in violation of 10 CFR 50.59(c)(2)(vi), the NRC also evaluated the violation using traditional enforcement. Since this violation is associated with a Green reactor oversight process violation, the traditional enforcement violation was determined to be a Severity Level IV violation, consistent with the example in paragraph 6.1.d(2) of the NRC Enforcement Policy.

Mitigating Systems

09/12/2014

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to take timely corrective actions to address service life related degradation of the emergency diesel generator starting air system. As a result, diesel generator 1 failed to roll during planned surveillance testing due to a degraded diesel starting air valve. The licensee replaced the faulty starting air valve and implemented corrective actions to develop preventative maintenance strategies for the starting air system. The licensee entered this issue into the corrective action program as Condition Report 2014-09424. The performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix G, Attachment 1, Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings, Exhibit 3, Mitigating Systems Screening Questions, dated May 9, 2014, the finding was of very low safety significance (Green) because the finding does not represent a loss of system safety function and the finding does not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to recognize and plan for the possibility of latent issues, and

inherent risk, even while expecting successful outcomes when determining the repair schedule for starting air valve SA-148.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Failure to Correct Longstanding Software Classification Issues

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to take timely corrective actions to ensure the proper control and use of software products used in safety related applications. Specifically, the team identified multiple instances of uncontrolled software products in use at the licensee's facility following identification of similar deficiencies in 2009 and 2011. The licensee entered this issue into their corrective action program as Condition Report 2014-09162 and initiated action to strengthen their software control program. The performance deficiency was more than minor, and therefore a finding, because if left uncorrected, it could lead to a more significant safety concern. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. Specifically, the apparent cause report for Condition Report 2009-04715 stated that a contributing cause was first and foremost [there is] a lack of knowledge associated with the procedural requirements for software control at FCS.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Failure to Incorporate Design Requirements for Switchgear Room Cooling

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to translate applicable design requirements into the specifications for plant systems. Specifically, inadequate design control inputs were used for analyzing the ability of the vital switchgear room cooling system to perform its safety function under all conditions. The licensee entered this issue into its corrective action program as Condition Report 2014-08317 and initiated actions to analyze the ability of vital switchgear room cooling to meet its specified safety function. This performance deficiency was more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone, and it directly affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the evaluation component of the problem identification and resolution cross-cutting area because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions

commensurate with their safety significance. Specifically, the licensee failed to analyze and evaluate a 1998 loss of switchgear cooling event to ensure that its use as a design assumption bound the worst design basis event.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instruction, Procedures, and Drawings, was identified involving the failure to follow procedures to initiate condition reports to enter conditions adverse to quality into the corrective action program. Specifically, the licensee failed to initiate condition reports in accordance with Procedure FCSG 24-1, Condition Report Initiation, Step 4.1.1.G, when deficiencies related to the station's corrective actions implemented for NRC violations were identified. The licensee entered this issue into its corrective action program as Condition Report 2014-09063 and initiated action to write condition reports for identified gaps related to previous NRC violations. This performance deficiency was more than minor, and therefore a finding, because if left uncorrected, it would have the potential to lead to a more significant safety concern. The team performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609 Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding was of very low safety significance (Green) because it did not involve a loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance because the licensee elected to use an informal system to resolve these issues rather than the corrective action program.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

A non-cited violation of 10 CFR 50.54(hh)(2), Conditions of License, was identified involving the failure to maintain available equipment needed to implement mitigating strategies to maintain or restore core, containment, and spent fuel pool cooling capabilities following large fires or explosions. Specifically, the licensee failed to maintain available a flexible suction hose related to the reactor coolant system heat removal mitigating strategy. The licensee initiated Condition Report 2014-08876 to address this deficiency and initiated action to procure and replace the missing flexible suction hose. This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). The NRC determined that this finding was of very low safety significance (Green) using NRC Manual Chapter IMC 0609, Appendix L, B.5.b Significance Determination Process, because it resulted in an unrecoverable unavailability of an individual mitigating strategy but did not result in multiple unavailable mitigating strategies such that reactor coolant system heat removal could not occur. This finding has a crosscutting aspect in the area of human performance in that the licensee's inadequate B.5.b inventory procedure contributed to the lack of recognition that the degraded flexible suction hose was required to implement mitigating strategies.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Failure to Maintain Design Control of Raw Water Strainer Control Panel

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to maintain design control of the raw water strainer AC-12B control panel AI-348. Specifically, the licensee failed to adequately design control panel AI-348 to protect it from the effects of spraying and wetting as required by the plant's licensing and design basis. The licensee entered this issue into its corrective action program as Condition Reports 2013-03301 and 2014-06974 and initiated action to encase control panel AI-348 to protect it against the effects of spraying and wetting. This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, control panel AI-348 was not designed to prevent water intrusion that resulted in a loss of power to raw water strainer AC-12B. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the organization thoroughly evaluating issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

A non-cited violation of 10 CFR 50.59, Changes, Test, and Experiments, was identified involving the failure to evaluate if a change to the facility as described in the Updated Safety Analysis Report would require prior NRC review and approval. Specifically, the licensee failed to evaluate if a change implemented under Engineering Change 59252 that credited the non-safety related demineralized water system as a make-up source to the component cooling water system during post-accident conditions represented an adverse change to the Updated Safety Analysis Report described design function. The licensee entered this deficiency into its corrective action program for resolution as Condition Report 2014-09151 and established action items to update Engineering Change 59252. The NRC determined that the licensee's failure to perform an evaluation prior to implementing a proposed change described in the Updated Safety Analysis Report was a violation of 10 CFR 50.59. Because this violation had the potential to impact the NRC's ability to perform its regulatory function, the NRC evaluated the violation using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the NRC evaluated this finding using the significance determination process to assess its significance. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, this performance deficiency is characterized as a Severity Level IV

violation. The team determined that a cross-cutting aspect was not applicable because the issue involving the failure to perform an adequate 10 CFR 50.59 evaluation was strictly associated with a traditional enforcement violation.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Failure to Promptly Identify and Correct a Condition Adverse to Quality

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to take corrective actions for a condition adverse to quality. Specifically, the licensee failed to take corrective actions to address multiple issues involving gas voiding of the component cooling water system. As immediate corrective action the licensee placed a maintenance hold on the component cooling water system until adequate fill and vent procedures were established. The licensee initiated corrective actions to analyze the effects of gas accumulation on the component cooling water system and entered this issue into the corrective action program as Condition Reports 2014-08892, 2014-09011 and 2014-09034. This performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that responds to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to operate the component cooling water system within design margins and failed to place special attention on minimizing longstanding equipment issues related to gas voiding in that system.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to take corrective actions to address a design deficiency affecting the control panel for raw water strainer AC-12B. Consequently, the panel experienced a water intrusion event on August 3, 2014, resulting in an unplanned inoperability of the raw water system. Following identification of this issue, the licensee implemented corrective actions to seal conduits leading to control panel AI-348 to prevent future water intrusion. The licensee entered this issue into its corrective action program as Condition Report 2014-09572. This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or

more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of problem identification and resolution in that the licensee failed to adequately review and provide timely responses to past operating experience that demonstrated that panel AI-348 was susceptible to water intrusion.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Inadequate Corrective Actions to Properly Implement Applicable ASME OM Code Requirements

A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to correct a condition adverse to quality associated with classification of check valves in the auxiliary feedwater system. Specifically, the licensee failed to update the in-service testing program to classify auxiliary feedwater discharge check valves as Category A/C valves and include required seat leakage testing. The licensee entered this issue into its corrective action program as Condition Report 2014-08452 and initiated actions to re-assess the current in-service testing methodology of check valves in the auxiliary feedwater system. This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the licensee failed to evaluate the function of discharge check valves FW-173 and FW-174 when developing the in-service testing program and addressing previous condition reports.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Inadequate Design Inputs into Safety Injection Piping Stress Calculation

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to implement appropriate design control measures associated with a safety-related pipe stress calculation. Specifically, several unverified and potentially non-conservative inputs were identified associated with Calculation FC07240 used to analyze stresses on a pipe reduction tee in the safety injection system. The licensee entered this issue into the corrective action program as Condition Report 2014-09098 and initiated action to update Calculation FC07240. This performance deficiency was more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of components that respond to initiating events. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as

high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to apply the appropriate rigor when evaluating the overstressed pipe union tee.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

Multiple examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified involving the failure to follow Procedure OP-FC-108-115, Operability Determinations, Revision 0a. In each example, the team identified that the licensee failed to make an immediate determination of operability for a degraded or non-conforming condition or failed to make an immediate determination of operability based on a detailed examination of the deficiency. The licensee took immediate corrective actions to update the incomplete or inaccurate operability determinations and entered the collective failures to follow station operability procedures into their corrective action program as Condition Report 2014-09163. This performance deficiency was more than minor, and therefore a finding, because it affected the equipment performance attribute of the Mitigating Systems Cornerstone objective of ensuring the reliability of systems that respond to initiating events. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of human performance because the licensee failed to use decision-making practices that demonstrate that a proposed action is to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee made non-conservative decisions related to the impact of degraded or non-conforming conditions.

Mitigating Systems	09/30/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14317A777](#)

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

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, Test Control, because the licensee failed to ensure that a surveillance test program was sufficient to demonstrate that the containment spray (CS) system would perform satisfactorily in service. Specifically, from February, 2014, to September, 2014, the licensee failed on several occasions to adequately adjust the frequency of testing for gas voids in the CS system upon identification of gas voids beyond acceptance criteria. Consequently, the test monitoring frequency did not ensure operability of the CS system between tests. Subsequently, the licensee increased the CS monitoring frequency. The performance deficiency is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in

accordance with the licensee's maintenance rule program. The finding has a cross-cutting aspect in the Problem Identification and Resolution area and the Trending aspect because the licensee failed to trend and analyze information from the corrective action program and other assessments in the aggregate to identify programmatic and common cause issues.

Mitigating Systems	09/30/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14317A777](#)

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

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control. because the licensee did not implement design-control measures commensurate with those applied to the original design when they implemented a system modification to the emergency diesel generator's (EDG's) fuel oil transfer systems. Specifically, in 1991, the licensee did not implement the design change or modification process when they placed an auxiliary boiler underground fuel oil storage tank fuel oil transfer system into service to meet the support function of transferring sufficient fuel to meet the mission time of the EDG's safety function. The licensee has scheduled a design review of this modification. The performance deficiency is more than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstones objective to ensure the reliability of systems that respond to mitigating events to prevent undesirable consequences. Despite not performing a design review of this modification, no loss of the fuel oil transfer system function occurred. The inspectors performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating system; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. The finding does not have a cross-cutting aspect because the failure to implement the design change verification process is not indicative of current licensee performance. The licensee's current design change procedures require design reviews of this type of in-field modification.

Mitigating Systems	10/16/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Failure to Furnish Evidence of Activities Affecting Quality

The team identified three examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVII, Quality Assurance Records, associated with the licensee's failure to furnish evidence of an activity affecting quality. Specifically, the licensee failed to maintain records demonstrating that: the temperature limits for structural concrete in the Auxiliary building would not be exceeded during a high energy line break event, that the predicted flood level in Room 81 during a high energy line break event would not affect required equipment, and that electrical splices inside of the containment were installed in accordance with the plant and the vendor installation instructions. The licensee performed an operability determination for the deficiencies that established a reasonable expectation for operability pending final resolution of the problems. The licensee entered these deficiencies into their corrective action program for resolution as Condition Reports CR 2013-22556, and CR 2013-12359. The licensee's failure to furnish evidence of completing analyses or maintaining records for the flood level in Room 81 during a high energy line break event, the structural concrete temperatures in the Auxiliary building, and electrical splice installations, is a performance deficiency. This performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating

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

Mitigating Systems	10/16/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Failure to Maintain Design Control of the Auxiliary Feedwater System

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, associated with the licensee's failure to maintain design control of the auxiliary feedwater system. Specifically, the licensee implemented a modification to the facility that involved the installation of flood barriers surrounding the guard pipes and portions of the steam driven auxiliary feedwater pump steam supply lines that are below the evaluated flood height in Room 81. This modification would have acted like a catch basin and potentially caused the steam driven auxiliary feedwater pump (FW-10) to be inoperable during a high energy line break event. The licensee implemented a facility modification to protect the steam supply piping and vent holes from water intrusion. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-22770. The failure to maintain design control of the auxiliary feedwater system was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the flood barrier installed only protected the FW-10 steam supply from flood waters rising from the floor; however, this water is postulated from a high energy line break, which would both spill onto the floor and spray into Room 81 without regard for direction. This resulted in a condition where the steam driven auxiliary feedwater pump may not have been able to perform its specified safety function. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, The Significance Determination Process (SDP) for Findings at Power, dated June 19, 2012, and determined that this finding required a detailed risk evaluation because the turbine driven auxiliary feedwater pump was inoperable for longer than the technical specification allowed outage time. A regional senior reactor analyst performed a detailed risk evaluation and determined that the finding was of very low safety significance (Green) because the bounding change to the core damage frequency was approximately $1.2E-9$ /year. The dominant core damage sequences included feedwater and main steam line breaks with the consequential failure of the turbine driven auxiliary feedwater pump combined with other random failures of Train A and B equipment trains. Equipment that helped mitigate the risk included the diesel driven and motor-driven auxiliary feedwater pumps, which remained functional for the vast majority of sequences. The finding was determined to have a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action component because the licensee did not take appropriate corrective actions to address safety issues, in that, an additional modification was required to protect the FW-10 steam supply from the effects of a high energy line crack or break.

Mitigating Systems	10/16/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Failure to Promptly Identify and Correct Inadequate Internal Flooding Analysis

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, associated with the licensee's failure to adequately evaluate and take prompt corrective actions to address an identified condition adverse to quality related to the internal flooding analysis for Room 81 of the Auxiliary building. Specifically, the team could not locate the analyses for water level in Room 81 following a high energy line break in the room. This deficiency had previously been identified by the licensee and entered into its corrective action program, however, it was improperly closed without completing the analysis. The licensee performed operability assessments for the affected areas that established a reasonable expectation for operability pending final resolution of the problems. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-11831. The licensee's failure to adequately evaluate and take prompt corrective actions to address an identified condition adverse to quality related to the internal flooding analysis for Room 81 was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that responds to initiating events to prevent undesirable consequences. Specifically, the licensee failed to take prompt corrective actions to address an identified condition adverse to quality related to the internal flooding analysis for Room 81 of the Auxiliary building. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate problems such that the resolutions address the causes.

Mitigating Systems	10/16/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Failure to Recognize Adverse Design Changes

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, associated with the licensee's failure to maintain design control of the auxiliary feedwater system. Specifically, the licensee implemented a modification to the facility that placed vent holes in the steam supply line guard piping for the steam driven auxiliary feedwater pump which were located below the evaluated flood height in Room 81 and potentially rendered the pump inoperable. The licensee implemented a facility modification to protect the vent holes from water intrusion. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-18308 and CR 2013-18605. The failure to ensure that design requirements were correctly translated into installed plant equipment was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to translate the design requirements into installed plant equipment resulted in a condition where the steam driven auxiliary feedwater pump may not have been able to perform its specified safety function. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, The Significance Determination Process (SDP) for Findings at Power, dated June 19, 2012, and determined that this finding required a detailed risk evaluation because the turbine driven auxiliary feedwater pump was inoperable for longer than the technical specification allowed outage time. A regional senior reactor analyst performed a detailed risk evaluation and determined this finding to be of very low safety significance (Green) because the bounding change to the core damage frequency was approximately 1.2×10^{-9} /year. The dominant core damage sequences included feedwater and main steam line breaks with the consequential failure of the turbine driven auxiliary feedwater pump combined with other random failures of Train A and B.

equipment trains. Equipment that helped mitigate the risk included the diesel driven and motor-driven auxiliary feedwater pumps, which remained functional for the vast majority of sequences. This finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Mitigating Systems	10/16/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Use of Non-Conservative Inputs in Thermal Lag Analyses

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, involving the failure to use conservative inputs. Specifically, the licensee failed to verify that all inputs used in the thermal lag analysis for the environmental qualification program were representative of the most limiting condition. The licensee performed an operability determination for the affected areas that established a reasonable expectation for operability pending resolution of the problems. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR 2013-14504, and CR 2013-14168. The failure to verify that all inputs used in the thermal lag analysis for the environmental qualification program were representative of the most limiting condition was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency called into question the availability and reliability of components required to mitigate the effects of a high energy line break. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours in accordance with the licensee's maintenance rule program. The team determined this finding has a cross-cutting aspect in the area of human performance associated with the decision-making component involving the failure to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Mitigating Systems	10/16/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Use of Non-conservative Values in Design Analyses

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

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

Mitigating Systems	12/31/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML15043A423](#)

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

The inspectors identified an NCV of very low safety significance of 10 CFR 50.65 paragraph (a)(2) Requirements for Monitoring the Effectiveness of Maintenance of Nuclear Power Plants, because the licensee did not demonstrate that performance of an SSC was being effectively controlled through appropriate preventive maintenance and did not monitor the performance of the SSC against licensee-established goals to provide reasonable assurance that the SSC was capable of fulfilling its intended function. Specifically, the licensee failed to demonstrate that the performance of HCV-2875A was being effectively controlled through appropriate preventive maintenance and failed to monitor HCV-2875A performance against licensee established goals when performance criteria were exceeded. Corrective actions taken for this violation included revising the Maintenance Rule performance criteria assessment for this SSC, classifying the SSC as 10 CFR 50.65 (a)(1), and specifying goals, corrective actions and monitoring for the system. The inspectors determined that the licensee's failure to demonstrate SSC performance through appropriate preventive maintenance and the failure to identify that system performance criteria had been exceeded and, as a result, the failure to perform an evaluation of the system for 50.65 (a)(1) goals, corrective actions, and monitoring, was a performance deficiency within the licensee's ability to foresee and correct and should have been prevented. Traditional enforcement did not apply as the issue did not have actual or potential safety consequences, had no willful aspects, and did not impact the NRC's ability to perform its regulatory function. A review of NRC Inspection Manual Chapter (IMC) 0612, Appendix E, Minor Examples, revealed that no minor examples are applicable to this finding. The finding is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the Cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to demonstrate HCV-2875A performance through appropriate preventive maintenance had a direct impact on HCV-2875A performance and the reliability of the raw water system. In addition, the failure to identify that HCV-2875A performance criteria had been exceeded and thereby the failure to perform an evaluation for 50.65 (a)(1) goals and to specify corrective actions and implement monitoring when the functional failure was first identified, resulted in a delayed assessment of this SSC and additional failures occurred in the intervening timeframe which adversely affected the reliability of the raw water system. The inspectors performed an initial screening of the finding in accordance with NRC IMC 0609, Appendix A, the Significance Determination Process (SDP) for Findings at Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety

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

Mitigating Systems	01/30/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15071A115](#)

(PIM) Failure to Follow Procedure during an Operability Determination

The team identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion V, for the failure to perform an operability determination in accordance with documented procedures. Specifically, the licensee failed to complete an operability determination related to Condition Report 2014-13202 in accordance with Procedure OP-FC-108-115, Operability Determinations, Revision 1. Consequently, after discovering dry boric acid accumulation at a welded joint on the high pressure safety injection pump discharge casing vent valve piping, the licensee exited the operability determination procedure prematurely, without performing an engineering evaluation for potentially degraded safety-related piping. The failure to perform operability determinations in accordance with documented procedures is a performance deficiency. This performance deficiency is more than minor, and therefore a finding, because it affected the human performance attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. Using Inspection Manual Chapter 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the team determined that the finding was of very low safety significance (Green) because all questions in Exhibit 2 could be answered in the negative. The team determined that the most significant contributor to the finding was that the licensee failed to stop when faced with the uncertain condition of the boric acid accumulation on the pump vent valve piping and resolve the issue prior to continuing (H.11).

Mitigating Systems	01/30/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15071A115](#)

(PIM) Failure to Promptly Identify and Correct a Condition Adverse to Quality

The team reviewed a self-revealing Green non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to promptly identify a condition adverse to quality. On October 27, 2014, a condition report was written to investigate dry boric acid on the high pressure safety injection Pump SI-2B vent valve piping. The initial investigation concluded that no degraded or nonconforming condition existed. On October 29, 2014, the Boric Acid Corrosion Control Program engineer conducted a review of the dry boric acid residue. The engineer identified the boric acid appeared to originate from a weld and needed to be cleaned and repaired; however, the engineer failed to initiate a condition report documenting this condition adverse to quality. The failure to promptly identify and correct a condition adverse to quality in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was a performance deficiency. Specifically, the licensee failed to write a condition report when there was evidence of a boric acid leak on the high pressure safety injection pump casing. This performance deficiency was of more-than-minor safety significance because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609 Appendix A, Exhibit 2, the finding was of very low safety significance (Green) because all questions in Exhibit 2 could be answered in the negative. The finding had a cross-

cutting aspect in the procedure adherence component of the human performance cross-cutting area because the individual failed to write a condition report as required by procedure after identifying a condition adverse to quality (H.8).

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

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

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, that design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. Specifically, prior to March 13, 2015, the licensee did not properly verify the adequacy of the raw water system flow rate to its safety related components through calculational methods or through a suitable testing program. The licensee failed to include the raw water pumps discharge check valves allowable back leakage acceptance criteria into the design calculation. In response to this issue, the licensee performed an operability determination and verified that with the current back leakage flow rates all downstream safety related loads would be properly cooled. This finding was entered into the licensee's corrective action program as Condition Reports CR 2015-01801, and CR 2015-01835. The team determined that the failure to verify the adequacy of the raw water system design through calculational methods or through a suitable test program was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective to ensure the reliability, availability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to have adequate measures in place to ensure that a suitable test program verified design inputs which ensured the design attributes of the raw water system. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

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

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, Measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specification, drawings, procedures, and instructions. Specifically, since 2009, the licensee failed to update battery maintenance procedures with the current maximum intercell resistance values. In response to this issue, the licensee performed a visual inspection of the battery intercell connections, performed a review of the latest intercell resistance measurements to identify any values that exceeded the correct acceptance criteria value, and performed an immediate operability determination. This finding was entered into the licensee's corrective action program as Condition Report CR 2015 02129. The team determined that the failure to establish the correct acceptance criteria values for battery intercell resistance measurements was a performance deficiency. This finding was more than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee had incorrect acceptance criteria for maximum intercell connection

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

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML15106A891						
(PIM) Failure to Obtain Prior NRC Approval for a Change in Seismic Analysis Damping						
<p>Severity Level IV/Green. The team identified two examples of a Severity Level IV, Green, non-cited violation, of 10 CFR 50.59, Changes, Tests and Experiments, for the licensee's failure to obtain a license amendment prior to implementing a change if the change would result in a departure from a method of evaluation described in the updated safety analysis report. Specifically, on February 23, 2015, and March 10, 2015, the licensee changed the facility to incorporate increased seismic damping for use in the intake crane and intake superstructure seismic analysis and seismic design; and in the raw water piping seismic analysis, respectively. In response to this issue, the licensee declared the intake structure as operable but non-conforming pending resolution of a license amendment request to permit the use of the increased damping value; and declared the raw water system as operable but non-conforming pending completion of the corrective actions to determine what actions are necessary to restore compliance to the licensing basis. This finding was entered into the licensee's corrective action program as Condition Reports CR 2015-02224 and CR 2015-02842. The team determined that the failure to identify that the proposed change to incorporate increased seismic damping for use in the intake crane and intake superstructure seismic analysis and seismic design; and in the raw water piping seismic analysis, was a performance deficiency. This finding was also evaluated using traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability, availability and capability of systems that respond to initiating events to prevent undesirable consequences; and there was a reasonable likelihood that the change would have required NRC review and approval prior to implementation. Specifically, the licensee failed to determine that the proposed updated safety analysis report change, and associated design calculations, did involve a change to a structure, systems, or components such that it did adversely affect an updated safety analysis report described design function; less conservative seismic damping values, which required an evaluation to be performed. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. Since the violation is associated with a Green reactor oversight process violation, the traditional enforcement violation was determined to be a Severity Level IV violation, consistent with the example in paragraph 6.1.d(2) of the NRC Enforcement Policy. This finding had a crosscutting aspect in the area of human performance associated with design margins because individuals failed to ensure margins were carefully guarded and changed only through a systematic and rigorous process.</p>						
Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML15106A891						

(PIM) Failure to Perform an Adequate Auxiliary Feedwater Pump Runout Design Calculation

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. Specifically, prior to March 13, 2015, the licensee did not verify the adequacy of the design calculation or a suitable testing program to ensure the required net positive suction head was available for the turbine-driven auxiliary feedwater pump. In response to this issue, the licensee performed an operability determination; revised several calculational errors, including removing conservatism which resulted in a gain of net positive suction head; and contacted the original equipment manufacturer who provided a testing summary that determined the turbine-driven pump could operate for a period of time below the required net positive suction head. This provided the licensee with the basis for an operable but non-conforming condition. This finding was entered into the licensee's corrective action program as Condition Report CR 2015-02414. The team determined that the failure to verify the adequacy of the auxiliary feedwater system design through calculational analysis and a suitable test program was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability, availability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to have adequate measures in place to ensure an acceptable design analysis and a suitable test program to verify the design inputs and ensure the capability of the auxiliary feedwater system to perform its safety function. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance associated with conservative bias because individuals failed to use decision making practices that emphasize prudent choices over those that are simply allowed.

Mitigating Systems

03/13/2015

FCS

Green

*SCWE: N

*HP: N

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

(PIM) Failure to Perform an Adequate Battery Sizing and Load Profile Calculation

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, Measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specification, drawings, procedures, and instructions. Specifically, prior to March 13, 2015, the licensee failed to ensure that battery sizing and load profile calculations included proper design data for inrush currents, a random load, and possible worst case load currents. In response to these issues, the licensee updated the design values to account for the missed loads to ensure the batteries maintained adequate available margin. This finding was entered into the licensee's corrective action program as Condition Report CR 2014-14857. The team determined that the failure to adequately perform a battery sizing and load profile calculation, to ensure proper battery size and margin was maintained, was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to account for inrush currents, random loads, and worst case load currents during load profile and battery sizing calculations. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a

crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

(PIM) Failure to Perform an Adequate Evaluation for the Auxiliary Building Crane

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. Specifically, prior to March 13, 2015, the licensee failed to perform an adequate design review to upgrade the auxiliary building single failure proof crane capacity, by failing to comply with ASME NOG-1-2004, Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder). In response to this issue, the licensee performed an operability determination and concluded that the crane was operable but non-conforming, and limited the use of the main hook to the original 75 ton value until the long term actions can be completed to restore the crane to fully operable. This finding was entered into the licensee's corrective action program as Condition Report CR 2015-02718. The team determined that the failure to perform an adequate design review to upgrade the auxiliary building single failure proof crane capacity was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to events to prevent undesirable consequences. Specifically, the licensee failed to comply with ASME NOG 1 2004 requirements to ensure the auxiliary building crane remained elastic when subjected to design loads for safe load handling of heavy loads. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened to Exhibit 4, External Events Screening Questions, because it was a function specifically design to mitigate a seismic event. Per Exhibit 4 the issue screened to a more detailed risk evaluation because if the seismic function were assumed to be completely failed and a load were dropped it would impact the spent fuel pool cooling or the safety injection refueling water storage tank functions. Therefore, the Region IV senior reactor analyst performed a more detailed risk evaluation. Given that the frequency of the initiating event is less than 1×10^{-6} , the analyst determined that the finding was of very low safety significance (Green). The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

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

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

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

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

(PIM) Failure to Properly Implement Procedures for Verifying Operator Time Critical Actions

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, which states, in part, Activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these procedures. Specifically, prior to February 25, 2015, the licensee failed to follow Procedure FCSG-56, Time Critical Operation Standard, to ensure all time critical operator actions were validated and verified. In response to this issue, the licensee determined that the continual training of job performance measures that test competency in completing many of the time critical actions provides a basis that all times are achievable. This finding was entered into the licensee's corrective action program as Condition Report CR 2015-02443. The team determined that the inadequate implementation of Procedure FCSG-56 for validation and verification of operator time critical actions was a performance deficiency. This finding was more than minor because it was associated with the human performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee did not adequately implement Procedure FCSG-56 to ensure that all operator time critical actions listed in Attachment 1 were properly validated and verified; therefore the licensee could not demonstrate that all operator time critical actions could be executed in accordance with the design basis. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance associated with consistent process because individuals failed to demonstrate an understanding of the decision making process and use it consistently.

Mitigating Systems	03/13/2015	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML15106A891](#)

(PIM) Inadequate Justification for Power Supplies Installed Beyond Vendor Recommended Life

Green. The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the

performance of a suitable testing program. Specifically, prior to March 12, 2015, the licensee failed to verify or check the adequacy of the reactor protective system power supplies: 1) service life as a function of expected life minus shelf life; 2) vendor requirements for in-storage and post-storage maintenance; and 3) including or addressing laboratory failure analysis conclusions that a required component was, although functional, at its end of life after 18 years. In response to this issue, the licensee performed an immediate operability determination, verified the power supplies ripple checks were within tolerance, performed an engineering evaluation to support an operable but non-conforming condition, and generated rework activities to replace/refurbish the installed power supplies. This finding was entered into the licensee's corrective action program as Condition Reports CR 2015-02809 and CR 2015 02811. The team determined that the failure to perform an adequate justification for having reactor protective system power supplies installed beyond vendor recommend life was a performance deficiency. This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to perform an adequate justification for continued operation for reactor protective system power supplies that were beyond vendor recommended life. In accordance with Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power, dated June 19, 2012, Exhibit 2, Mitigating Systems Screening Questions, the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Mitigating Systems	03/31/2015	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML15128A180						
(PIM) Failure to Implement Risk Management Actions for Planned Maintenance Activities						
<p>Green. The inspectors identified an NCV of very low safety significance of 10 CFR 50.65 paragraph (a)(4) Requirements for Monitoring the Effectiveness of Maintenance of Nuclear Power Plants, because the licensee did not effectively manage the increase in risk that resulted from maintenance activities. Specifically, the licensee failed to implement key risk management actions outlined in site risk assessment and management guidance for diesel driven auxiliary feedwater (AFW) pump maintenance that resulted in a Yellow risk configuration. This violation was entered into the licensee's corrective action program and actions taken for this violation included verifying that all remaining online work prior to the scheduled refueling outage was properly screened and assessed in accordance with site risk management procedures. In addition, the licensee conducted training on risk management guidance that had been recently implemented during corporate alignment for personnel involved with scheduling and operations. The inspectors determined that the licensee's failure to implement key risk management actions outlined in site risk assessment and management guidance for diesel driven AFW pump maintenance was a performance deficiency within the licensee's ability to foresee and correct and should have been prevented. The finding is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to perform maintenance on a continuous work schedule as required by site procedures resulted in a longer unavailability time of the equipment and an extended Yellow risk condition. Using NRC IMC 0609, Appendix K, Maintenance Risk Assessment and Risk Management Significance Determination Process, dated May 19, 2005, Flowchart 2, Assessment of [Risk Management Actions], the inspectors determined the incremental core damage probability (ICDP) associated with the maintenance activity to be approximately 1E-7, and therefore was determined to have a very low safety significance (Green), since the calculated ICDP was less than 1E-6. Because the licensee did not use a systematic process to ensure that nuclear safety remained the overriding priority while they implemented a corporate alignment, the finding has a cross-cutting aspect in the area of Human Performance, Change Management (H.3).</p>						
Barrier Integrity	06/07/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: N

Docket/Status: 05000285 (C)

Open: [ML12187A790](#)**(PIM) FAILURE TO CORRECTLY TRANSLATE THE DESIGN BASIS FOR THE CONTAINMENT SPRAY SYSTEM**

The team identified a finding of very low safety significance involving a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion III, Design Control, in that, design control measures did not assure that the design basis for safety related systems were correctly translated into procedures. Specifically, the licensee failed to correctly translate the design basis of the containment spray system into Technical Basis Document Procedure TBD-EOP-05,

Uncontrolled Heat Extraction. After identification, the licensee entered this issue in the corrective action program as Condition Report 2011-06802. The failure to correctly translate the design basis of the containment spray system into an emergency operating procedure technical basis document is a performance deficiency. It is more than minor and therefore a finding because it adversely affects the procedure quality attribute of the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The incorrect guidance in the emergency operating procedure basis document could result in a licensed operator taking incorrect action to secure containment spray based on a faulty understanding of the expected system response. Securing containment spray during a main steam line break would challenge the safety function of the containment building, increasing the risk to public health and safety. Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRC's regulatory function, and was not the result of any willful violation of NRC requirements. In accordance with Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, a phase 1 screening was performed and the finding was determined to be of very low safety significance (Green) because the finding: (1) did not represent only a degradation of the radiological barrier function provided for the control room, or auxiliary building, or spent fuel pool; (2) did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere; (3) did not represent an actual open pathway in the physical integrity of reactor containment system, containment isolation system, and heat removal components; and (4) did not involve an actual reduction in function of hydrogen igniters in the reactor containment. There was no cross-cutting aspect assigned to this performance deficiency because it was not indicative of current plant performance.

Barrier Integrity

06/07/2012

FCS

Green

*SCWE: N

*HP: N

*PIR: Y

Docket/Status: 05000285 (C)

Open: [ML12187A790](#)**(PIM) INADEQUATE PROCEDURES WITH FOUR EXAMPLES FOR THE BARRIER INTEGRITY CORNERSTONE**

The team identified a finding of very low safety significance involving a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, with four examples. Example 1. The normal operating instruction for reactor coolant pumps, OI-RC-9, Reactor Coolant Pump Operation, contains pump trip requirements that conflict with the pump trip requirements provided in the Abnormal Operating Procedure AOP-35,

Reactor Coolant Pump Malfunctions. After identification, the licensee entered this issue in the corrective action program as Condition Report 2012-03145. Example 2: Annunciator Response Procedure ARP-DCS-SCEAPIS incorrectly directs the operators to restore a control element assembly group to within proper overlap using manual group mode, instead of manual individual mode. After identification, the licensee entered the issue into the corrective action program as Condition Report 2011-07172. Example 3: Neither the Annunciator Response Procedure ARP-DCS-SCEAPIS, nor the control element assembly Abnormal Operating Procedure AOP-02, CEA and Control System Malfunctions, address excessive overlap between control element assembly groups caused by operator error instead of a digital control system failure. After identification, the licensee entered the issue into the corrective action program as Condition Report 2011-09653. Example 4: The licensee's Abnormal Operating Procedure AOP-21,

Reactor Coolant System High Activity, has multiple values for high reactor coolant system activity requirements that conflict on whether or not it is necessary to initiate a plant shutdown. Additionally, this procedure is not current with the most recent action levels contained in SO-O-43 Fuel Reliability Management Plan. This fuel reliability

management plan currently lists four action levels, while the actions in the abnormal operating procedure are based on five action levels. The fifth action level actions would not be performed since no fifth action level is defined in SO-O-43. After identification, the licensee entered the issue into the corrective action program as Condition Report 2012-03143. These failures to prescribe activities affecting quality by procedures or to include the appropriate acceptance criteria are performance deficiencies. Each example is more than minor and is therefore a finding because it adversely affects the procedure quality attribute of the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. These examples either could have significantly affected, or were shown during examination preparation and administration to have actually affected the operator's ability to perform the activity affecting quality. In accordance with Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, a phase 1 screening was performed and each example except for Example 1 was determined to be of very low safety significance (Green) because the fuel cladding barrier was affected but did not affect the reactor coolant system or containment barriers. Example 1 was determined to be of very low safety significance (Green) because the finding: (1) did not represent only a degradation of the radiological barrier function provided for the control room, or auxiliary building, or spent fuel pool; (2) did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere; (3) did not represent an actual open pathway in the physical integrity of reactor containment system, containment isolation system, and heat removal components; and (4) did not involve an actual reduction in function of hydrogen ignitors in the reactor containment. 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 implement a corrective action program with a low threshold for identifying issues in that licensed operators deviate from procedures when procedures cannot be implemented as written without writing necessary condition reports to fix the deficient procedures.

Barrier Integrity	08/18/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML12276A456						
(PIM) Fuel Move with SFP Ventilation Inoperable a Condition Prohibited by Technical Specification 2.8.3(4)						
<p>The inspectors identified a non-cited violation of very low safety significance of Technical Specification 2.8.3(4), the limiting condition for refueling operations in the spent fuel pool. In December 2009, the licensee performed refueling operations with the Spent Fuel Pool Area Charcoal Filtration System, VA-66, declared inoperable. The failure to establish an operable Spent Fuel Pool Area Charcoal Filtration System, VA-66, before moving spent fuel was a performance deficiency and a violation of Technical Specification 2.8.3(4). The licensee entered this issue into the corrective action program as Condition Reports 2012-08521, 2012-0836 and Licensee Event Report 2012-008-0. The performance deficiency was determined to be more than minor because it adversely impacted the attribute of the Barrier Integrity Cornerstone objective to maintain radiological filtration functionality during operations in the spent fuel pool to protect the public from radionuclide releases caused by accidents or events. Using IMC 0609 Appendix A, Barrier Integrity Significance Determination Process, the inspectors determined this finding to be of very low safety significance (Green). Although fuel movements were contrary to the licensee's technical specifications limiting condition for refueling operations, the finding represented a degradation of the radiological barrier function provided for the spent fuel pool fuel building. This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee did not effectively incorporate internal operating experience and lessons learned from previous VA-66 ventilation system failures during spent fuel pool refueling operations and plant safety. Specifically, the licensee failed to systematically collect, evaluate, and communicate to affected internal stakeholders in a timely manner relevant internal and external operating experience, [P2(a)]</p>						
Barrier Integrity	11/17/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML12366A158						
(PIM) Inadequate Operability Determination for Containment Internal Structures						

The NRC identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, Procedures, for the failure to perform an adequate operability determination as required by FCS Procedure NOD-QP-31, Operability Determination Process. Specifically, the licensee's operability determination for non-conforming containment internal structures failed to address that a section of the containment internal structures exceeded the allowable working stress criteria. The licensee entered this issue into its corrective action program for evaluation and review. Inspectors found that the failure to perform an adequate operability determination to specifically evaluate that the containment internal structures did not meet the design code of record was a performance deficiency. This violation is more than minor because it is associated with the design control attribute of the barrier integrity cornerstone and has the potential to adversely affect the cornerstone objective. The inspectors used Inspection Manual Chapter 0609, Appendix G

Shutdown Operations Significance Determination Process, to determine that the issue screened as very low safety significance (green) because it did not require a quantitative assessment per Checklist 4. This violation was determined to have a crosscutting aspect in the area of human performance associated with decision making [H.1.b]. Specifically, the licensee did not use conservative assumptions in decision making and did not adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action

Barrier Integrity	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Barrier Integrity	05/29/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13192A501](#)

(PIM) 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.

Emergency Preparedness	03/31/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12132A395](#)

(PIM) Failure To Comply With An Emergency Plan Requirement To Notify Offsite Authorities Within 15 Minutes Of An Emergency

The inspectors identified a non-cited violation of 10 CFR 50.54(q) for failure to follow an emergency plan requirement during a declared alert. Specifically, the licensee did not notify the states of Nebraska and Iowa of the emergency within 15 minutes of event declaration as required by Section E, paragraph 2.4, of their emergency plan. This failure has been entered into the licensee's corrective action system as Condition Report 2011-8529. This finding is more than minor because it affects safety and impacts the cornerstone attributes of emergency response organization performance and actual event response. The finding had a credible impact on the Emergency Preparedness Cornerstone objective because untimely notification to offsite authorities degrades their ability to implement adequate measures to protect the health and safety of the public. The finding is of very low safety significance because it was a problem with implementation of the site emergency plan during an event that did not affect the ability of offsite authorities to respond to the emergency. The finding had a crosscutting aspect in the work practices (management oversight) component of the human performance area because licensee management did not set performance expectations for event notifications and monitor performance to ensure compliance with emergency plan requirements.

Emergency Preparedness	03/31/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12132A395](#)

(PIM) Failure to Promptly Recognize and Communicate Siren System Failures

The inspector identified a non-cited violation of 10 CFR 50.54(q)(2) for failure to follow the licensee's emergency plan. Specifically, the licensee did not follow the Radiological Emergency Response Plan, Section E, Notification Methods and Procedures, Revision 26, which requires offsite warning sirens be activated by radio signal. The licensee did not respond to indications of siren system failure for approximately six hours and did not inform offsite authorities of the need for alternative means to notify the public for three additional hours. This failure has been entered into the licensee's corrective action system as Condition Reports 2012-01435 and 2012-01489. This finding is more than minor because it affected the facilities and equipment cornerstone attribute (availability of the alert and notification system) and impacted the cornerstone objective of implementing adequate measures to protect public health and safety. This finding was evaluated using the Emergency Preparedness Significance Determination Process and was determined to be of very low safety significance because the planning standard function was not lost or degraded. The function was not degraded because some sirens remained functional in the 0-5 and 5-10 mile areas of the emergency planning zone, and offsite officials could have promptly recognized failed sirens. The finding had a

cross-cutting aspect in the work control component of the human performance area because the communications department and control room personnel did not communicate and coordinate as necessary with offsite organizations.

Emergency Preparedness	04/15/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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.

Emergency Preparedness	05/18/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13164A359](#)

(PIM) 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.

Emergency Preparedness	12/31/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML14042A238						
(PIM) Failure to Correct Deficiencies in Operations Support Center Functions						
<p>A Green noncited violation was identified for the failure of the licensee to correct deficiencies identified as a result of four exercises conducted between March 27, 2012, and May 7, 2013, as required by 10 CFR 50.47(b)(14). Specifically, the licensee failed to correct deficiencies associated with team briefing and tracking in the Operations Support Center (OSC) identified as a result of exercises conducted March 27, 2012; July 17, 2012; March 5, 2013; and May 7, 2013. The inspectors determined that the licensee's failure to correct deficiencies identified by licensee evaluators is a performance deficiency within the licensee's control. This finding is more than minor because it affected the emergency preparedness cornerstone objective and the Emergency Response Organization Performance cornerstone attribute. This finding was evaluated using the Emergency Preparedness Significance Determination Process and was determined to be of very low safety significance because it was a failure to comply with NRC requirements, was not a risk significant planning standard function, and was not a loss of planning standard function. The finding was not a loss of planning standard function because the licensee adequately corrected some deficiencies identified in exercises conducted in 2012 and 2013. The finding was entered into the licensee's corrective action system as Condition Report 2013-22495. The finding was assigned a cross-cutting aspect of Problem Identification and Resolution because the finding was reflective of current performance and the licensee did not take appropriate corrective action to address safety issues and adverse trends [P.1(d)]. (Section 1EP1).</p>						
Emergency Preparedness	12/31/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML15043A423						
(PIM) Failure to Determine the Availability of Local Population Data for Use in Estimating Changes in the EPZ Population						
<p>The NRC identified a Green non-cited violation for the licensee's failure to determine the availability of 2013 state and local population data for use in estimating annual changes in the plume exposure emergency planning zone population. This finding is more than minor because the issue is associated with procedure quality and offsite Emergency Preparedness cornerstone attributes and adversely affected the Emergency Preparedness cornerstone objective. The finding was evaluated using Manual Chapter 0609, Appendix B, Emergency Preparedness Significance Determination Process, dated February 24, 2014, and was determined to be of very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded planning standard function. The planning standard function was not degraded because including state and local 2013 data would not have required the current emergency planning zone time estimate to be updated. Appendix E to 10 CFR 50, Section IV.5, states, in part, that during the years between decennial censuses, nuclear power reactor licensees shall estimate emergency planning zone permanent resident population changes once a year using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. Contrary to the above, Fort Calhoun Station failed in 2013 to estimate emergency planning zone permanent resident population changes using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. Specifically, Fort Calhoun Station failed to determine whether State and local government population data was available prior to performing the analysis. This finding was assigned a cross-cutting aspect in the area of human performance associated with work management because the licensee failed to understand the scope of work performed by a contractor on their behalf, and failed to ensure the contractor fully complied with regulatory requirements. The issue was entered into the licensee's corrective action system as Condition Report 2014-12474.</p>						
Occupational Radiation Safety	11/17/2012	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						

Open: [ML12366A158](#)

(PIM) Failure to Follow Radiation Work Permit Requirements

Inspectors reviewed a self-revealing Green noncited violation of Technical Specification 5.8.1.a for the failure to follow procedure requirements related to radiation work permit requirements. Specifically, workers unexpectedly created a high radiation area when working with tri nuke filter hosing while on a radiation work permit that did not allow access into a high radiation area. Both workers received alarms on their dosimeters. The licensee entered the issue into its corrective action program for evaluation and review. The failure to follow a procedure was a performance deficiency. The finding was more than minor because it negatively impacted the Occupational Radiation Safety cornerstone's attribute of program and process, in that not following the requirements of the radiation work permit led to workers' unplanned, unintended dose. Using NRC Manual Chapter 0609, Appendix C, Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because: (1) it was not associated with as low as is reasonably achievable (ALARA) planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. The finding has a problem identification and resolution crosscutting component associated with operating experience because the licensee didn't implement operating experience through changes to station procedures. Specifically, there was operating experience which could have prevented the issue if it had been discussed at the pre-job brief.

Occupational Radiation Safety

06/30/2013

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML13221A584](#)

(PIM) 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.

Occupational Radiation Safety

06/30/2013

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML13221A584](#)

(PIM) 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, - 4 - 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.

Occupational Radiation Safety	06/30/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14294A801](#)

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

The inspectors reviewed a self-revealing, non-cited violation of Technical Specification 5.11.1.b, which resulted from an individual entering a high radiation area without being aware of the radiological conditions. Specifically, on July 19, 2013, an operator was performing valve lineup work in the reactor building. Although the operator was on a radiation work permit that allowed access to high radiation areas, access was only allowed with knowledge of the dose rates in the areas entered. As immediate corrective actions, the radiation protection supervisors coached the operator on properly informing Radiation Protection of his planned work areas and coached the radiation protection technician on having a more intrusive questioning attitude during briefings so that radworkers are properly informed of all hazards and radiological conditions. This issue was documented in the licensee's corrective action program as Condition Report CR 2014-14693. The entry into a high radiation area without knowledge of the radiological conditions is a performance deficiency and is a violation of Technical Specification 5.11.1.b. The performance deficiency is more than minor because it is associated with the Occupational Radiation Safety cornerstone attribute of program and process (exposure control) and adversely affects the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. Using Inspection Manual Chapter 0609, Appendix C, Occupational Radiation Safety Significance Determination Process, dated August 19, 2008, the inspectors determined the violation has very low safety significance because: (1) it was not an as low as is reasonably achievable finding, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. This violation has a cross-cutting aspect in the human performance area, associated with teamwork, because the operator did not properly communicate his work locations to the radiation protection technician for briefing and the technician did not display a questioning attitude to understand the work locations for the operator to properly brief him and ensure nuclear safety was maintained.

Public Radiation Safety	08/18/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12276A456](#)

(PIM) Failure to Establish and Implement Adequate Procedures for Meteorological Monitoring and the Off-Site Dose Calculation Manual

Inspectors identified two examples of a non-cited violation of very low safety significance of Technical Specification 5.8.1 for the failure to adequately establish, implement, and maintain procedures for: (1) the onsite meteorological

monitoring systems; and (2) reporting meteorological data in accordance with the Offsite Dose Calculation Manual requirements. The licensee entered these issues into the corrective action program as Condition Reports 2012-05658, 2012-05724 and 2012-05777. The failure to establish, implement, and maintain procedures to ensure the meteorological monitoring equipment is operable and required meteorological data is reported was a performance deficiency. This finding is more than minor because it affected the Public Radiation Safety cornerstone attribute of program and process. The failure to have and use applicable procedures to ensure the operability of the meteorological monitoring system and the accuracy of the Annual Radiological Effluent Release Report has the potential to impair public dose assessments of routine and accidental radioactive effluent releases. Using IMC 0609 Appendix D, Public Radiation Safety Significance Determination Process, the inspectors determined this finding to be of very low safety significance because the finding did not represent a significant degradation of the ability to assess dose to members of the public and the actual releases were well below established limits for members of the public. This finding has a cross-cutting aspect in the human performance area associated with the resources component because the licensee failed to ensure that personnel, procedures, and other resources were adequate for the operability of the meteorological monitoring system and implementation of Offsite Dose Calculation Manual requirements related to the annual effluent report, [H.2(c)]

Physical Protection	10/12/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12314A408](#)

(PIM) Failure to Adequately Compensate for a Degraded Intrusion Detection System

The NRC identified a noncited violation of 10 CFR 73.55(o)(2) for the failure to establish adequate compensatory measures for a degraded Intrusion Detection System (IDS). Specifically, while testing the licensee's IDS for their 20 foot OCA barrier, the inspectors observed that the licensee had not installed IDS sensors on two OCA barrier swing gates. Due to the absence of IDS sensors on the gates, the licensee had implemented compensatory measures for the OCA barrier. However, the inspectors determined that the licensee's compensatory measures were inadequate because the time required for an adversary to penetrate the barrier was less than the frequency that the gates were being observed by security force personnel. Upon notification, the licensee immediately implemented compensatory measures that provided a level of protection necessary to detect attempted penetration of the gates and entered the issue into their corrective action program as Condition Report CR 2012 07006. The finding is more than minor because it is associated with the physical protection attribute and adversely affected the security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to adequately compensate for degraded IDS on this OCA barrier constitutes a failure of the barrier's intended function and denies the security force the ability to detect, assess, and interdict a threat prior to detection at the PA barrier. In addition, the finding has a human performance cross-cutting aspect associated with decision making because the licensee did not use conservative assumptions when determining the appropriate compensatory measures for the absence of IDE on the OCA barrier gates [H1.(b)]

Physical Protection	10/12/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12314A408](#)

(PIM) Failure to Maintain Intrusion Detection Equipment in an Operable Condition

The NRC identified a noncited violation of 10 CFR 73.55(n)(1) for the failure to maintain and implement a maintenance, testing, and calibration program that ensures that intrusion detection equipment is maintained in an operable condition and capable of performing its intended function. Specifically, while testing the licensee's Intrusion Detection System (IDS) for the PA isolation zone, the inspectors identified an area in a microwave zone in which an adversary could pass through without being detected. The several factors that created this gap in detection were identifiable and therefore could have been corrected through the licensee's testing and maintenance program. The licensee initiated immediate compensatory measures for the zone until repairs could be made, and entered the

issue into their corrective action program as Condition Report CR 2012 06897. The finding is more than minor because it is associated with the physical protection attribute and adversely affected the security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to maintain the PA intrusion detection equipment in an operable condition and capable of performing its intended function degrades the licensee's ability to detect and assess the attempted penetration of the PA barrier. In addition, the finding has a human performance cross-cutting aspect associated with work control because the licensee did not appropriately plan work activities by incorporating risk insights, job site conditions, and knowledge of plant security systems and components [H3.(a)]

Physical Protection	01/30/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13115A095](#)

(PIM) Failure to Account for Site-Specific Conditions in the Development of Armed Responder Timelines

On January 30, 2013, the NRC identified a noncited violation of 10 CFR 73.55(b)(4) for the failure to analyze and identify site specific conditions that affected the specific measures needed to implement the armed responder timeline requirements of 10 CFR 73.55(k)(4), and account for these conditions in the design of the physical protection program. Specifically, the licensee failed to develop and properly analyze armed responder timelines. Upon notification of the violation, the licensee took immediate corrective action by relocating internal armed responder staging locations closer to their response location in order to decrease the distance the internal responders would have to travel during a contingency event. This corrective action was taken until the licensee could complete the long term corrective action of redeveloping their adversary and armed responder timelines. The licensee entered the issue into their corrective action program as CR 2013-02114. The finding is more than minor because it is associated with the Physical Protection and Contingency Response attributes and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to analyze site specific conditions in the development of timelines could result in the security force's failure to arrive at protected positions in time to interdict an adversary force. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because the licensee failed to develop and implement a systematic process to analyze and identify site-specific conditions in the development and maintenance of their protective strategy.

Physical Protection	01/30/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13115A095](#)

(PIM) Failure to Provide Defensive Fighting Positions Constructed of Bullet Resisting Materials

On January 30, 2013, the NRC identified a noncited violation of Section 12.0 of the Fort Calhoun Station Physical Security Plan for the failure to provide security defensive positions constructed of bullet resisting materials. Specifically, two armed response locations in the licensee's protective strategy were not equipped with bullet resisting defensive fighting positions. Upon notification of the violation, the licensee took immediate corrective actions by placing portable bullet resisting defensive positions at the two locations, and entered the issue into their corrective action program as CR 2013-02211. The finding is more than minor because it is associated with the Physical Protection and Contingency Response attributes and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to provide armed responders with security defensive positions constructed of bullet resisting materials could result in armed responder casualties during a contingency event. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because the licensee failed to develop and implement a systematic process to analyze and identify site specific conditions when making adjustments to its

protective strategy.						
Physical Protection	01/31/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML13115A095						
(PIM) Failure to Identify Compensatory Measures for Degraded Cameras						
<p>On January 31, 2013, the NRC identified a noncited violation of 10 CFR 73.55(o)(1) for the failure to identify criteria and measures to compensate for degraded or inoperable equipment, systems, and components necessary to implement the site security plan and protective strategy. Specifically, the licensee did not identify compensatory measures for the degradation of cameras used to perform periodic surveillance of the waterway approaches to the site. Upon notification of the violation, the licensee implemented compensatory measures for the camera and changed the site's compensatory measures procedure to ensure that any future degradation of the waterway cameras is compensated for. The licensee entered the issue into their corrective action program as CR 2013-02173. The finding is more than minor because it is associated with the Physical Protection attribute and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the licensee's failure to monitor the waterway adjacent to their facility degrades their ability to identify a threat and implement an effective response against elements of the design basis threat. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because the licensee failed to verify the validity of the assumption that compensatory measures for the waterway cameras were not required.</p>						
Physical Protection	02/01/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML13115A095						
(PIM) Failure to Test Explosive Detectors in accordance with Manufacturer's Specifications						
<p>On February 1, 2013, the NRC identified a noncited violation of 10 CFR 73.55(n)(1)(i) for the failure to ensure that portal explosive detectors are tested for operability and performance at predetermined intervals, maintained in operable condition, and are capable of performing their intended function. Specifically, portal explosive detectors were not being tested in accordance with the manufacturer's specifications resulting in the licensee's inability to provide high assurance that the detectors were operable and capable of detecting explosives. Upon notification of the violation, the licensee began testing the machines in accordance with the manufacturer's specifications and entered the issue into their corrective action program as CR 2013-02232. The finding is more than minor because it is associated with the Access Control attribute and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to ensure that portal explosive detectors are tested for operability could result in the equipment becoming degraded without the licensee's knowledge and could subsequently result in the undetected introduction of explosive material into the protected area. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because the licensee failed to use conservative decision making when developing a testing methodology for their portal monitor explosive detectors.</p>						
Physical Protection	02/11/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML13115A095						
(PIM) Failure to Maintain Security Delay Barriers						
On February 11, 2013, the NRC identified a noncited violation of 10 CFR 73.55(n)(1)(i) for the failure to ensure that						

security delay barriers are tested for operability and performance at predetermined intervals, maintained in operable condition, and are capable of performing their intended function. Specifically, several security delay barriers were discovered in an inoperable condition as a result of not being tested or maintained. Upon notification of the violation, the licensee performed an extent of condition review to ensure that all security delay barriers were operable and entered the issue into their corrective action program as CR 2013-02950. The finding is more than minor because it is associated with the Contingency Response attribute and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because inoperable delay barriers reduce adversarial delay and thereby degrade the security forces' ability to interdict the design basis threat during a contingency event. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Resources, because the licensee failed to ensure that adequate equipment was available

Physical Protection

02/12/2013

FCS

Green

*SCWE: N

*HP: N

*PIR: Y

Docket/Status: 05000285 (C)

Open: [ML13115A095](#)**(PIM) Failure to Employ Adequate Compensatory Measures for PA Perimeter Lighting**

On February 12, 2013, the NRC identified a noncited violation of 10 CFR 73.55(o)(2) for the failure to ensure that temporary lighting employed as a compensatory measure provided a level of protection equivalent to the protection that was provided by the inoperable equipment. Specifically, portable lighting used to compensate for PA perimeter security lighting that was not on an uninterruptible power supply, did not provide the illumination necessary to, at all times, provide the capability to detect and assess unauthorized persons at the protected area perimeter. Upon notification of the violation, the licensee entered the issue into their corrective action program, placed additional portable lighting along the perimeter, and readjusted the current portable lighting to ensure that PA alarm assessment could be made. The licensee entered the issue into their corrective action program as 2013-02993. The finding is more than minor because it is associated with the Physical Protection and Contingency Response attributes and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to provide adequate compensatory measures for lighting that would be lost during a loss of normal power could degrade the licensee's ability to assess intrusion alarms at the protected area perimeter and subsequently degrade their ability to interdict the design basis threat. In addition, this finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee failed to thoroughly evaluate the placement of temporary lighting.

Physical Protection

02/12/2013

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML13115A095](#)**(PIM) Failure to Properly Approve Vital Area Access Lists**

On February 12, 2013, the NRC identified a noncited violation of 10 CFR 73.56(j) for the failure to properly approve individuals' continued need for access to vital areas (VA). Specifically, several managers at the site approved their own access to VAs on a monthly basis. The licensee took immediate corrective action by ensuring that each manager's VA access was being approved by their cognizant supervisor. The licensee entered the issue into their corrective action program as CR 2013-03109. The finding is more than minor because it is associated with the Access Authorization attribute and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the practice of allowing individuals to re-approve their own need for access to VAs could degrade the site's ability to mitigate an insider threat. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because the licensee assumed that the practice of allowing managers to re-approve their own need

for VA access met the intent of the insider mitigation program without validating that assumption and identifying the possible unintended consequences.

Physical Protection	02/13/2013	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13115A095](#)

(PIM) Failure to Enter Security Program Deficiencies into the Corrective Action Program

On February 13, 2013, the NRC identified a noncited violation of 10 CFR Part 73, Appendix B, Section VI.C.3.(i) for the failure to enter deficiencies identified during tactical response drills into the site's corrective action program (CAP). Specifically, while reviewing the licensee's tactical response drill program, the inspectors determined that the licensee had not entered timeline drill failures and deficiencies into their CAP. Upon notification of the violation, the licensee entered the issue into their corrective action program as CR 2013-03190. The finding is more than minor because it is associated with the Contingency Response attribute and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to enter drill deficiencies and failures into the CAP for evaluation could result in the failure to identify and correct deficiencies in the licensee's protective strategy. In addition, this finding has a cross-cutting aspect in the area of Human Performance, Resources, because the licensee failed to develop and implement a procedure that required the use of the CAP to correct failures and deficiencies identified during security drills.

Physical Protection	02/14/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML13115A095](#)

(PIM) Failure to Ensure that an Unattended Opening

On February 14, 2013, the NRC identified a noncited violation of 10 CFR 73.55(i)(5)(iii) for the failure to ensure that unattended openings that intersect a security boundary such as underground pathways are protected by a physical barrier and monitored by intrusion detection equipment or observed by security personnel at a frequency sufficient to detect exploitation. Specifically, the licensee failed to account for the accuracy and precision of the instrumentation used to measure the river level resulting in the potential failure to ensure that a traversable unattended opening was observed at a frequency to detect exploitation. Upon notification of the violation, the licensee took immediate corrective actions by changing their compensatory measures procedure to take instrument margin of error into account to ensure that compensatory measures to monitor the unattended opening would be in place before the pathway became traversable. The licensee entered the issue into their corrective action program as CR 2013-02205. The finding is more than minor because it is associated with the Physical Protection and Contingency Response attributes and adversely affected the Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because the failure to adequately monitor an unattended opening could result in the failure to detect adversaries entering the PA. In addition, this finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee failed to thoroughly evaluate the protection of an unattended opening.

Physical Protection	03/27/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML11309B127](#)

(PIM) Failure to have Compensatory Measures Equivalent to the Protection that was provided by the Degraded Component

~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION (OUO-SRI)~~ Introduction: The NRC identified a Green NCV of 10 CFR 73.55(o)(2), because the licensee failed to have compensatory measures that provided the level of protection that is equivalent to the protection that was provided by the degraded components. ~~(OUO-SRI)~~ Analysis: The failure to have compensatory measures that provide the level of protection that is equivalent to the protection that was provided by the degraded component is a performance deficiency. It is a performance deficiency because it was within the licensee's ability to foresee and correct. The performance deficiency was more than minor because it was associated with the Physical Protection System attribute and affected the security cornerstone objective to provide assurance that the licensee security system uses a defense-in-depth approach and can protect against the DBT of radiological sabotage from external and internal threats. Security findings are processed for significance through IMC 0609 Appendix, Part I. In accordance with the Baseline Security Significance Determination Process for power reactors, all findings associated with attributes of Physical Protection are processed using the significance screen for physical protection in section 0609EI-06 and figure 4. This finding did not meet the criteria listed in the significance screen and the finding was evaluated using the Physical Protection Significance Determination Process, Figure 5. The inspectors determined that the total for the finding was zero points due to no Tier elements being listed in figure 5. The inspectors determined the finding to be of very low security significance because the calculated point did not exceed the range for a Green determination (0 to 6 points). In addition, this finding was determined to have an associated cross-cutting aspect in Problem Identification and Resolution within the area of CAP, because the licensee failed to conduct a review of corrective actions to ensure the problems are resolved [P.1(c)]. ~~(OUO-SRI)~~ Enforcement: Paragraph 73.55(o)(2) of 10 CFR, states in part, that compensatory measures must provide a level of protection that is equivalent to the protection that was provided by the degraded components. Contrary to the above, the licensee did not have compensatory measures that were equivalent to the protection that was provided by the degraded components. Because this violation was of very low security significance and it was entered into the licensee's CAP, this finding is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. NCV: 05000285/2013201-01, Failure to have Compensatory Measures Equivalent to the Protection that was provided by the Degraded Component. ~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION~~

Physical Protection	06/21/2013	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
Docket/Status: 05000285 (C)						
Open: ML13254A412						
(PIM) Failure to Correct a Deficiency in the Testing of Explosive Detectors						
<p>On June 19, 2013, the NRC identified a noncited violation of 10 CFR 73.55(b)(10) for the failure to use the site corrective action program to correct deficiencies in the physical protection program. Specifically, following an NRC identified violation for the failure to test portal explosive detectors in accordance with the manufacturer's specifications on February 1, 2013, the licensee failed to implement adequate corrective actions. Upon notification of the violation, the licensee implemented immediate corrective actions to ensure that the machines would be tested in accordance with site procedures and entered the issue into their corrective action program as CR 2013-12755. The finding is more than minor because it is associated with the access control attribute and adversely affected the security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective, because the failure to correct deficiencies involving the testing of explosive detector search equipment could result in the equipment becoming degraded without the licensee's knowledge and could subsequently result in the undetected introduction of explosive material into the protected area. In addition, this finding has a cross-cutting aspect in the area of Problem Identification and Resolution associated with corrective actions. Specifically, the licensee failed to take appropriate corrective actions for an event which occurred on February 1, 2013, involving the failure to test explosive detectors in accordance with the manufacturer's specifications.</p>						
Physical Protection	03/21/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						

Open: [ML14122A355](#)**(PIM) Failure To Complete Required Searches**

The inspectors identified a Green non-cited violation of 10 CFR 73.55(h)(3)(i) for failure to accomplish a visual and physical search of personnel before granting access to the protected area. Specifically, the licensee was conducting an additional visual search of headgear due to as found limitations of the walk-through explosive detectors. However, the visual search employed was not effective and an additional, more detailed visual and physical search of headgear, or an additional detection equipment search was required to ensure personnel were adequately searched and items clearly identified before granting access to protected areas. For immediate corrective actions to restore compliance, the licensee put an interim visual and physical headgear search in place and briefed the security force on the process. The licensee entered this event into the Fort Calhoun Station corrective action program as CR 2014-03566. The finding is more than minor because it was associated with the Access Control attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because it could have resulted in undetected explosives being allowed into the protected area. The finding is not Greater than Green because no actual introduction of explosives into the protected area occurred. In addition, this finding has a cross-cutting aspect associated with Human Performance, Resources.

Physical Protection

03/21/2014

FCS

Green

*SCWE: N

*HP: N

*PIR: Y

Docket/Status: 05000285 (C)

Open: [ML14122A355](#)**(PIM) Failure To Ensure That Gas Masks Are In Working Condition**

The inspectors identified a Green non-cited violation of 10 CFR 73.55(k)(2), for failure to ensure that all equipment, specifically gas masks, necessary to implement the site protective strategy are in working condition, including being the correct size for the user. For immediate corrective actions the licensee added this issue to the daily pre-shift briefing. Specifically, the shift supervisor will ask the security officers to check to ensure they are carrying the correct size mask before proceeding to on-duty status. The licensee entered this event into the Fort Calhoun Station corrective action program as CR 2014-03600. The finding is more than minor because it was associated with the Response to Contingency Events attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because it could have resulted in the failure of contingency equipment to protect officers as designed. The finding was not Greater than Green because no actual need to utilize the gas mask occurred. In addition, this finding has a cross-cutting aspect associated with Human Performance, Change Management.

Physical Protection

03/21/2014

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML14122A355](#)**(PIM) Failure to Include Security Equipment in the Maintenance and Testing Program**

The inspectors identified a Green non-cited violation of 10 CFR 73.55(n)(1)(i) for failure to establish, maintain, and implement a maintenance and testing program for all equipment needed for implementation of the protective strategy. Specifically, the licensee failed to periodically test installed physical security barriers which are a part of the internal plant protective strategy. For immediate corrective actions to restore compliance the licensee successfully tested the security equipment to verify operability and provided the security organization with interim guidance for periodic testing. The licensee entered this event into the Fort Calhoun Station corrective action program as Condition Report CR 2014-03590. The finding is more than minor because, it is associated with the Physical Protection System attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of

radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because this failure could have resulted in the response team's inability to delay the advance of adversaries as designed. The finding is not Greater than Green because no actual need to deploy the barriers occurred. In addition, this finding has a cross-cutting aspect associated with Human Performance, Conservative Bias.

Physical Protection	03/21/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14122A355](#)

(PIM) Failure to Test Explosive Detectors in Accordance with Manufacturer's Recommendations

The inspectors identified a Green non-cited violation of 10 CFR 73.55(n)(1)(i) for the failure to ensure that protected area (PA) portal explosive detectors are maintained in operable condition, and are capable of performing their intended functions. Specifically, the licensee failed to test PA portal explosive detectors in accordance with the manufacturer's recommendations because the test samples had not been stored correctly. For immediate corrective actions to restore compliance the licensee modified the testing procedure to include properly refrigerating test samples when not in use and began testing the detectors in accordance with the manufacturer's recommendations. The licensee entered this event into the Fort Calhoun Station corrective action program as CR 2014-03572. The finding is more than minor because, it is associated with the Access Control and Physical Protection System attributes and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because it could have resulted in the equipment becoming degraded without the licensee's knowledge, which could have further resulted in the introduction of explosive material into the PA. The finding is not Greater than Green because no actual introduction of explosives into the protected area occurred. In addition, this finding has a cross-cutting aspect associated with Problem Identification and Resolution, Evaluation.

Physical Protection	03/21/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14122A355](#)

(PIM) Failure to Train Security Officers in the Use of Gas Masks

The inspectors identified a Green non-cited violation of 10 CFR 73.55, Appendix B, VI.C.1, for failure to fully train and qualify security officers in the use of gas masks. Specifically, when the licensee converted from an older model of gas mask to a newer model, security officers were not trained on how to clear contaminants out of the mask after donning. Additionally, the officers were not trained on rifle sight alignment and shooting stance differences due to the structure of the face shield on the new mask. For immediate corrective actions to restore compliance with the gas mask donning aspect of this violation the licensee developed interim training and conducted shift briefings with demonstration to all security force shifts. Compliance with the shooting aspect had already been restored. The licensee entered this event into the Fort Calhoun Station corrective action program as CR 2014-03598. The finding is more than minor because it was associated with the Response to Contingency Events attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense-in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats. It adversely affected the cornerstone objective because it could have resulted in the failure of officers to effectively utilize contingency equipment during defense of the plant. The finding was not Greater than Green because no actual need to utilize the gas mask occurred. In addition, this finding has a cross-cutting aspect associated with Human Performance, Change Management.

Miscellaneous	02/02/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12079A224](#)

(PIM) Failure to Correct Identified Corrective Action Program Deficiencies

The team identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions. After identifying deficiencies that constituted a significant condition adverse to quality in the implementation of the corrective action program, the licensee failed to identify the cause and develop corrective actions to preclude repetition. The licensee's failure to implement corrective actions for an identified root cause in accordance with corrective action program procedures was a performance deficiency. This performance deficiency is more than minor because it is associated with, and adversely affects, the protection-against-external-factors attribute of the initiating events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding is of very low safety significance because it did not represent a loss of system safety function, did not represent the actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the decision-making component of the human performance crosscutting area because the licensee failed to use a systematic process when faced with the uncertain or unexpected situation that deficiencies related to external flood protection also extended into other station activities and could impact overall station performance.

Miscellaneous

04/15/2013

FCS

N/A

*SCWE: N

*HP: N

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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)).

Miscellaneous

04/15/2013

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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)]

Miscellaneous	04/15/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#)

(PIM) 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

Miscellaneous	07/19/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Evaluate Changes to Ensure They Did Not Require Prior Approval

The team identified a non-cited violation of 10 CFR 50.59, Changes, Tests, and Experiments, associated with the licensee's failure to adequately evaluate modification EC 33464, Replace AK 50 480 V Main and Bus-Tie Breakers With Molded Case Type or Equivalent, to determine if it required prior NRC approval. Specifically, the licensee's documented evaluation failed to identify and evaluate new creditable failure modes to determine whether they would have an adverse effect on the 480 Vac electrical distribution system. This issue was entered into the licensee's corrective action program as Condition Reports CR 2013-04474 and 2013-16954. The licensee's failure to implement the requirements of 10 CFR 50.59 and adequately evaluate changes associated with the electrical distribution system was a performance deficiency. Because this performance deficiency had the potential to impact the NRC's ability to perform its regulatory function, the team evaluated the performance deficiency using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the team evaluated this finding using the significance determination process to assess its significance. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process for Findings At-Power, the finding is determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not

represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather event. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, the team characterized this performance deficiency as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to adequately evaluate changes in accordance with 10 CFR 50.59 was strictly associated with a traditional enforcement violation.

Miscellaneous	07/19/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#)

(PIM) Failure to Submit Licensee Event Report

The team identified three examples of a Severity Level IV non cited violation of 10 CFR 50.73, Immediate Notification Requirements for Operating Nuclear Power Reactors, associated with the licensee's failure to submit a licensee event report within 60 days following a discovery of an event meeting the reportability criteria as specified. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR 2013-2863 and 2012-03796. The team determined that the failure to make a required Licensee Event Report was a violation of 10 CFR 50.73. The violation was evaluated using Section 2.2.4 of the NRC Enforcement Policy because the failure to submit a required licensee event report may impact the ability of the NRC to perform its regulatory oversight function. As a result, this violation was evaluated using traditional enforcement. In accordance with Section 6.9 of the NRC Enforcement Policy, this violation was determined to be a Severity Level IV non-cited violation. The team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to make a required report was strictly associated with a traditional enforcement violation.

Miscellaneous	02/15/2014	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#)

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

A Severity Level IV non-cited violation of 10 CFR 50.46, Acceptance criteria for emergency core cooling systems (ECCS) for light-water nuclear power reactors, was identified involving the failure to submit a report within 30 days of discovery of a significant change in the application of the ECCS model that affected the peak cladding temperature. The licensee submitted the required 10 CFR 50.46 report late on September 20, 2013 (ML13266A108). This report was subsequently reviewed by the NRC staff date October 2, 2013, and determined to be acceptable. The NRC staff determined that while the configuration change to the HPSI system resulted in a higher peak cladding temperature, it is within the regulatory requirements of 10 CFR 50.46(b)(1). The licensee initiated CRs-2014-00674 and 2014-01356 to address issuance of the late report. This performance deficiency was determined to be subject to traditional enforcement because it impeded the regulatory process, in that the failure to submit a timely report of significant ECCS analytical changes prevented the NRC technical staff from independently evaluating the potential safety implications of reductions in safety injection flow into the reactor during an accident. This violation was determined to be a Severity Level IV violation because it is consistent with the examples in Paragraph 6.9.d of the NRC Enforcement Policy. Because this violation is subject to traditional enforcement, no cross-cutting aspects have been assigned. (Section 40A3.2).

Miscellaneous	03/14/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14115A411](#)

(PIM) Failure to Obtain Prior NRC Approval for a Change in Method of Evaluation

The team identified three examples of a non-cited violation of 10 CFR 50.59, Changes, Test, and Experiments, associated with the licensee's failure to adequately evaluate changes to determine if prior NRC approval is required. Specifically, from April 19, 2011, through August 17, 2012, the licensee failed to obtain a license amendment pursuant to Section 50.90 prior to implementing a proposed change, test, or experiment if the change, test, or experiment would result in a departure from a method of evaluation described in the Updated Safety Analysis Report. The licensee addressed these issues by submitting a license amendment which was reviewed and approved by the NRC. This issue has been entered into the licensee's corrective action program as Condition Reports CR 2013-03839, 2013-04266, 2013-05210, 2013-14363, and 2013-14665. The licensee's failure to implement the requirements of 10 CFR 50.59 and adequately evaluate changes to requirements for tornado missile protection described in the Updated Safety Analysis Report was a performance deficiency. Because this performance deficiency had the potential to impact the NRC's ability to perform its regulatory function, the team evaluated the performance deficiency using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the team evaluated this finding using the significance determination process to assess its significance. Using Inspection Manual Chapter 0609, Appendix A, The Significance Determination Process for Findings At-Power, the finding was determined to have very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather event. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, the team characterized this performance deficiency as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this performance deficiency because the failure to adequately evaluate changes in accordance with 10 CFR 50.59 was strictly associated with a traditional enforcement violation.

Miscellaneous

09/12/2014

FCS

Green

*SCWE: N

*HP: Y

*PIR: N

Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

(PIM) Failure to Complete Corrective Actions in a Timely Manner

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to take timely corrective actions to address deficiencies in station calculations. Specifically, the licensee failed to update station calculations to incorporate actual test data for sluice gate leakage to ensure design basis flood levels do not adversely affect equipment important to safety. The licensee entered this issue into its corrective action program as Condition Report 2014-09156 and initiated actions to update station calculations. This finding was more than minor, and therefore a finding, because if left uncorrected, the finding would have the potential to lead to a more significant safety concern. Specifically, failure to complete accurate calculations that support engineering modifications for mitigating the consequences of an external flooding event could lead to unanalyzed conditions adversely affecting safety related systems or components. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, this finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program; and (5) did not involve the loss or degradation of equipment or function specifically designed to

mitigate a seismic, flooding or severe weather event. This finding has a cross-cutting aspect in the area of human performance in that the licensee failed to prioritize an update to Calculation FC08081 following completion of the May 2013 in-leakage test.

Miscellaneous	09/12/2014	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#)

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

A non-cited violation of 10 CFR 50.73(a)(1), Licensee Event Report System, was identified involving the failure to submit a required licensee event report. Specifically, the licensee failed to report within 60 days the discovery that Namco Type EA 180 limit switches were not environmentally qualified as required due to inadequate maintenance procedures, a condition that resulted in operation prohibited by the plant's technical specifications. The licensee restored compliance by submitting Licensee Event Report 05000285/2014-004 on June 20, 2014. The licensee entered this issue into its corrective action program as Condition Report 2014-08454. The NRC determined that the failure to submit a licensee event report within the time limits specified in regulations was a violation of 10 CFR 50.73. This violation was evaluated using Section 2.2.4 of the NRC Enforcement Policy, because the failure to submit a required licensee event report may impact the ability of the NRC to perform its regulatory oversight function. As a result, this violation was evaluated using traditional enforcement. In accordance with Section 6.9 of the NRC Enforcement Policy, this violation was determined to be a Severity Level IV, non-cited violation. The NRC determined that a cross-cutting aspect was not applicable because the issue was strictly associated with a traditional enforcement violation.

Violation

Initiating Events	02/02/2012	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12079A224](#) Discussed: [ML14042A238](#)

(PIM) 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.						
Initiating Events	04/13/2012	FCS	Red	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML12101A193 Discussed: ML14094A052						
(PIM) Failure to Ensure that the 480 Vac Electrical Power Distribution System Design Requirements were Implemented and Maintained						
<p>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)]</p>						
Initiating Events	08/18/2012	FCS	N/A	*SCWE: N	*HP: Y	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML12276A456 Discussed: ML14094A052						
(PIM) 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

Mitigating Systems	03/31/2012	FCS	N/A	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML12132A395](#) Discussed: [ML14042A238](#)

(PIM) Failure to Classify Intake Structure Sluice Gates as Safety Class III

The inspectors identified a violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, for failure of the licensee to classify the six intake structure exterior sluice gates and their motor operators as Safety Class III. This finding, and its corrective actions, will be managed by the Manual Chapter 0350 Oversight Panel. 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 crosscutting 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, for significant problems, conducting effectiveness reviews of corrective actions to ensure that the problems are resolved.

Mitigating Systems	03/31/2012	FCS	N/A	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML12132A395](#) Discussed: [ML14042A238](#)

(PIM) Failure to Meet Design Basis Requirements for Design Basis Flood Event

The inspectors identified a violation of 10 CFR 50, Appendix B, Criterion III, Design Control, for failure to meet design basis requirements for protection of the safety related raw water system during a design basis flood for flood levels between 1,010-1,014 feet mean sea level as identified in Updated Safety Analysis Report, Section 9.8, Raw Water System. Specifically, the design basis states that water level inside the intake cells can be controlled during a design basis flood by positioning the exterior sluice gates to restrict the inflow into the cells. This finding, and its corrective actions, will be managed by the Manual Chapter 0350 Oversight Panel. This finding was more than minor because it adversely impacted the equipment performance and protection against external events attributes 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 crosscutting 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.

Mitigating Systems	03/31/2012	FCS	N/A	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML12132A395](#) Discussed: [ML14042A238](#)

(PIM) Inadequate Procedures to Mitigate a Design Basis Flood Event

The inspectors identified four examples of a violation of Technical Specification 5.8.1.a, Procedures, for failure to establish and maintain procedures to mitigate an external flooding event. The procedural guidance for flooding was inadequate to mitigate the consequences of external flooding. This finding, and its corrective actions, will be managed by the Manual Chapter 0350 Oversight Panel. This finding was more than minor because it adversely impacted the procedure quality, human performance and protection against external events attributes 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 crosscutting 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, for significant problems, conducting effectiveness reviews of corrective actions to ensure that the problems are resolved.

Mitigating Systems	05/17/2012	FCS	N/A	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12165A258](#) Discussed: [ML14094A052](#)

(PIM) 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.

Mitigating Systems	05/17/2012	FCS	N/A	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12165A258](#)

(PIM) Failure to Provide Adequate Post-Fire Safe Shutdown Actions in the Switchgear Rooms

The inspectors identified a violation of Technical Specification 5.8.1.c for an inadequate fire protection procedure. Specifically, the post fire safe shutdown procedure had several deficiencies that would have prevented implementation for fires that occurred in the East and West Switchgear Rooms. 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 to ensure a post-fire safe shutdown procedure could be implemented as written for fires in the East and West Switchgear Rooms was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability

of systems that respond to initiating events to prevent undesirable consequences. The 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). The performance deficiency had a cross-cutting aspect in the area of human performance associated with decision making because the licensee did not perform effective interdisciplinary reviews during development of the post-fire safe shutdown procedure.

Mitigating Systems	03/01/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (O)

Open: [ML13070A399](#)

(PIM) 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)]

Mitigating Systems	04/15/2013	FCS	N/A	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML13197A261](#) Discussed: [ML15071A115](#)

(PIM) Failure to Promptly Identify and Correct a Condition Adverse to Quality

(Initial Entry) 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. (IR# 05000285/2013008 dated July 16, 2013) (Update and Closure) The inspection team reviewed the licensee's corrective actions to address VIO 05000285/2013008-14, Failure to Promptly Identify and Correct a Condition Adverse to Quality, involving a breaker/fuse coordination study and potential vulnerabilities of the 4160-volt and 480-volt electrical distribution systems. The licensee entered this condition into their corrective action

program as Condition Report CR 2013-05631. The team reviewed re-evaluations of the study performed by the licensee and a contractor, changes to breaker and bus inspection and preventive maintenance procedures, changes to control circuit testing procedures, and verified that breaker and bus inspection activities were scoped into the next refueling outage. The team found that the corrective actions adequately addressed the violation; therefore, VIO 05000285/2013008-14 is closed. (IR# 05000285/2015008 dated March 12, 2015)

Mitigating Systems	03/14/2014	FCS	White	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML14115A411](#)

(PIM) Failure to Ensure Tornado Missile Protection for Site Components

The team identified multiple examples of a violation of 10 CFR 50, Appendix B, Criterion III, Design Control, involving the failure to establish applicable tornado missile protection design requirements for components needed to ensure the capability to shut down the reactor and maintain it in a safe shutdown condition. Specific examples included the steam driven auxiliary feedwater pump exhaust stack, auxiliary feedwater components located in Room 81, raw water pump electrical pull boxes PB-128T and PB-129T, and diesel generator fuel oil storage tank fill and vent lines. The licensee implemented plant modifications to adequately protect all affected equipment from tornado generated missiles and entered the deficiencies into its corrective action program for resolution as Condition Reports CR 2013-03839, 2013-03842, 2013-14117, and 2013-14246. The failure to ensure that station components were adequately protected from tornado missiles was a performance deficiency. In accordance with NRC Inspection Manual Chapter 0612, Appendix B, Issue Screening, the performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the finding affected the reliability of required components following a postulated tornado-generated missile impact. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, The Significance Determination Process (SDP) for Findings at Power, Exhibit 4, External Events Screening Questions. The finding required a detailed risk evaluation because it involved the lack of equipment specifically designed to mitigate a severe weather initiating event (tornado) and could have degraded two or more trains of a multi-train system. The Region IV senior reactor analyst performed a detailed risk evaluation in accordance with Appendix A, Section 6.0, Detailed Risk Evaluation. The NRC concluded the finding was characterized as having low to moderate safety significance (White). The calculated change in core damage frequency of 2.6×10^{-6} was dominated by a tornado-induced non-recoverable loss of offsite power with the failure of the emergency power supply system. The analyst determined that the finding did not affect the internal events initiator risk and would not involve a significant increase in the risk of a large early release of radiation. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate problems such that the resolutions address the causes. The NRC has concluded that the information regarding the reason for the violation, the corrective actions implemented to correct the violation and prevent recurrence, and the date when full compliance was achieved was obtained by the NRC during our inspection activities. Therefore, the licensee is not required to respond to this letter unless the description contained in the enclosed report does not accurately reflect corrective actions or the licensee's position. Additionally, since this issue was identified and resolved by the station during the extended shutdown, under increased NRC oversight of the Inspection Manual Chapter 0350 Process, this issue will not be used for future plant performance assessment inputs and is considered closed.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14318A886](#) Discussed: [ML15071A115](#)

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

(Initial Entry) A cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to assure that applicable regulatory requirements and design bases were correctly translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to properly evaluate NRC Bulletin 88-04, Potential Safety-Related Pump Loss, for strong pump weak pump interaction regarding auxiliary feedwater pumps FW-6 and FW-10. The evaluation failed to consider pump-to-pump interaction that may result due to pump discharge check valve leakage. In addition, the licensee failed to re-evaluate the condition after surveillance testing performed on November 28, 2010, and September 1, 2012, identified leakage past both pump discharge check valves. The licensee entered this issue into its corrective action program as Condition Report 2014-08381 and initiated actions to re-evaluate NRC Bulletin 88-04. This performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance because the licensee failed to demonstrate a conservative bias in decision making-practices. Specifically, the licensee's determination that the event is not credible failed to consider documented check valve leakage in the auxiliary feedwater system. (IR# 05000285/2014009 dated September 18, 2014) (Update and Closure) The team reviewed the licensee's corrective actions to address deficiencies related to VIO 05000285/2014009-10, Deficient Evaluation of NRC Bulletin 88-04, Strong Pump Weak Pump Due to Failure to Consider the Effect of Auxiliary Feedwater Pumps Discharge Check Valves Leakage. The licensee's corrective actions are documented in a letter to the NRC, dated October 20, 2014 (ML14293A237). The team reviewed these corrective actions and determined them to be adequate to correct the deficiency; therefore, VIO 05000285/2014009-10 is closed. (IR# 05000285/2015008 dated March 12, 2015)

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (O)

Open: [ML14318A886](#)

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

A cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to account for design basis conditions in station calculations. Specifically, the licensee failed to account for worst-case electrical frequency when analyzing diesel fuel oil consumption and storage requirements. The licensee entered this issue into its corrective action program as Condition Report 2014-09157 and initiated action to update station calculations. This performance deficiency was more than minor, and therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of components that respond to initiating events. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, the finding is of very low safety significance (Green) because: (1) the finding was not a deficiency affecting the design or qualification of a mitigating system; (2) the finding did not represent a loss of system and/or function; (3) the finding did not represent an actual loss of function of a single train for greater than its technical specification allowed outage time; and (4) the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. This finding has a cross-cutting aspect in the area of problem identification and resolution in that the licensee failed to thoroughly evaluate issues to ensure that

resolutions address causes and extent of conditions commensurate with their safety significance.

Mitigating Systems	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (O)

Open: [ML14318A886](#)

(PIM) Failure to Ensure Safe Operations at Design Basis Low River Level

A cited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified involving the failure to ensure that the safety-related raw water pumps are available for safe plant operations down to the design basis low river level. Specifically, station analysis and abnormal operating procedures would not allow operation of the raw water pumps to the design basis low river water level. The licensee entered this issue into its corrective action program as Condition Report 2014-09159 which included actions to reevaluate the capability of the raw water pumps to operate at low river levels. This finding was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. This finding has a cross-cutting aspect in the area of human performance in that the licensee did not ensure that personnel, equipment, procedures and other resources are available and adequate to support nuclear safety. Specifically, the licensee deferred funding for a vendor analysis of the capabilities of the raw water pumps at the design low river level.

Mitigating Systems	10/16/2014	FCS	White	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14329B361](#)

(PIM) Failure to Correctly Translate Design Requirements into Installed Plant Configuration

The team identified a violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, associated with the licensee's failure to assure that applicable regulatory requirements and the design bases, as defined in 10 CFR 50.2 and as specified in the license application, for those structure, systems and components to which this appendix applies, were correctly translated into specifications, drawings, procedures, and instructions. Specifically, from initial construction through October 2013, the licensee failed to fully incorporate applicable design requirements for components needed to ensure the capability to shut down the reactor and maintain it in a safe shutdown condition following a high energy line break. The licensee addressed this deficiency by reconstituting the design analysis associated with the high energy line break and environmental qualification programs, receiving a change to the facilities licensing basis, and implementing plant modifications. This issue was entered into the licensee's corrective action program as Condition Report CR 2013-2857. The failure to ensure that design requirements were correctly translated into installed plant equipment was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to translate the design requirements into installed plant equipment resulted in a condition where structures, systems, and components necessary to mitigate the effects of a high energy line break may not have functioned as required. The team evaluated the finding using Inspection Manual Chapter (IMC) 0609, Appendix A, The Significance

Determination Process (SDP) for Findings At-Power, dated June 19, 2012, and determined that this finding required a detailed risk evaluation because it was a deficiency affecting the design and qualification of a mitigating structure, system, or component that resulted in a loss of operability or functionality and represented a loss of system and/or function. The Region IV senior reactor analyst performed a detailed risk evaluation in accordance with Appendix A, Section 6.0, Detailed Risk Evaluation. The detailed risk evaluation concluded the finding was best characterized as having low to moderate safety significance (White). The minimum calculated change in core damage frequency of 4.1×10^{-6} was dominated by a reactor coolant pump seal cooler loss of coolant accident followed by the failure of four containment isolation valves that were not properly qualified for a harsh environment. The upper bound was shown quantitatively and/or qualitatively to be less than 1.0×10^{-5} . The analyst determined that the finding did not affect the external events initiator risk and would not involve a significant increase in the risk of a large early release of radiation. The team determined that this finding does not have a cross-cutting aspect because the most significant contributor of this finding would have occurred more than three years ago, and therefore, does not reflect current licensee performance.

Barrier Integrity	02/15/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14128A314](#) Discussed: [ML15071A115](#)

(PIM) Failure to Restore Compliance for Containment Spray Runout Conditions

(Initial Entry) A cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified involving the failure to take timely corrective action for a condition adverse to quality. Specifically, the licensee failed to restore compliance following NRC identification of the licensee's failure to correct a runout condition of the containment spray system (CS) documented in NCV 05000285/2008003-05, in August 2008. Licensee corrective actions to correct the issue included completion of an analysis of containment spray pump operation during the main steam line break (MSLB) event; revision of CS design documentation; analysis of motor performance by an electrical vendor; and completion of a temporary modification to throttle the CS pump discharge valves to provide additional system resistance preventing pump runout. Future corrective actions include a permanent design change to prevent CS pump runout. The licensee initiated CR 2014-02242 on February 19, 2014, to document this failure to restore compliance. This finding was more than minor because it adversely impacted the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events. The inspectors reviewed NRC IMC 0609, Attachment 4, Initial Characterization of Findings, Table 3 SDP Appendix Router. While this issue was identified during a refueling outage, the inspectors determined that the majority of the exposure time for this violation occurred with the reactor at power and should be evaluated using the Significance Determination Process in accordance with IMC 0609, The Significance Determination Process (SDP) for Findings at-Power, Appendix A, Exhibit 3, Barrier Integrity Screening Questions. The inspectors determined that the finding did not represent an actual open pathway in containment or containment isolation logic, nor did the finding represent an actual reduction in the function of containment hydrogen igniters. Based on the guidance in the Exhibit 3 checklist the inspectors determined that the finding was of very low safety significance. The inspectors determined that the finding had a cross-cutting aspect of avoiding complacency in the human performance area, because the licensee's staff failed to recognize latent issues even while expecting successful outcomes. (IR# 05000285/2014002 dated March 19, 2014) (Update and Closure) The team reviewed the licensee's corrective actions to address deficiencies related to VIO 05000285/2014002-06, Failure to Restore Compliance for Containment Spray Runout Conditions. The NRC concluded in Inspection Report 05000285/2014002 (ADAMS Accession No. ML14078A666) that temporary corrective actions taken on November 24, 2013, restored FCS to compliance. The team found these corrective actions to be sufficient to adequately address the violation. The team also reviewed corrective actions scheduled to occur in the upcoming refueling outage and found them to be adequate to permanently correct the deficiency; therefore, VIO 05000285/2014002-06 is closed. (IR# 05000285/2015008 dated March 12, 2015)

Emergency Preparedness	09/12/2014	FCS	Green	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (O)

Open: [ML14318A886](#)

(PIM) Failure to Maintain Effectiveness of an Emergency Plan

A cited violation of 10 CFR 50.54(q)(2), Conditions of License, was identified involving the failure to maintain the effectiveness of the site's emergency plan. Specifically, the licensee established an Alert low river level emergency classification criteria that was below the raw water pump's minimum suction requirements, contrary to the standard emergency action level scheme. The licensee entered this issue into its corrective action program as Condition Report 2014-08757 which included actions to re-evaluate the capability of the raw water pumps to operate at low river levels. This finding was more than minor, and therefore a finding, because it was associated with the emergency response organization performance attribute of the Emergency Preparedness Cornerstone and affected the associated cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, inaccurate emergency actions levels degrade the licensee's ability to implement adequate measures to protect public health and safety. The finding was evaluated using the Emergency Preparedness Significance Determination Process, and was determined to be of very low safety significance (Green) because the finding was not a lost or degraded risk significant planning function. The planning standard function was not degraded because the emergency classifications would have been declared although potentially in a delayed manner. This finding has a cross-cutting aspect in the area of human performance in that the licensee did not ensure that personnel, equipment, procedures and other resources are available and adequate to support nuclear safety. Specifically, the licensee deferred funding for a vendor analysis of the capabilities of the raw water pumps at the design low river level.

Physical Protection	01/18/2012	FCS	White	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML120450931](#) Discussed: [ML13115A095](#)

(PIM) Failure to Correct SGI Control Deficiencies

An apparent violation of 10 CFR 73.55(b)(10) was identified involving two examples where the licensee corrective action program failed to correct deficiencies associated with the physical protection program. Specifically, following identification of uncontrolled SGI on May 24, 2011, the licensee failed to identify that tapes used by the site to backup system on both the local area network (LAN) and STELLANT database systems contained the SGI information, and these backup tapes were not properly controlled for storage of the SGI information. Additionally, the NRC identified that the licensee's method for purging the electronic SGI from the STELLANT database was inappropriate and therefore failed to adequately remove the SGI from the tapes. The licensee entered these issues into their corrective action program as CR 2011-7700 and 2011-7849. The finding is more than minor because if left uncorrected it could become a more significant safety concern. Specifically, the failure to correct SGI storage and control deficiencies increases the vulnerability of the information to be subject to unauthorized disclosure. The finding was assessed using Physical Protection Significance Determination Process (PPSDP) described in IMC 0609, Appendix E, Figure 3, and was preliminarily determined to be of low to moderate security significance (White). The finding had a crosscutting aspect in the area of problem identification and resolution related to corrective actions. Specifically, after the licensee identified improperly controlled safeguards information they failed to implement appropriate corrective actions to control the information [P1.d].

Physical Protection	01/18/2012	FCS	White	*SCWE: N	*HP: N	*PIR: Y
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Docket/Status: 05000285 (C)

Open: [ML120450931](#) Discussed: [ML13115A095](#)

(PIM) Failure to Protect Safeguards Information

An apparent violation of 10 CFR 73.21(a)(1)(i) was identified involving the failure to ensure that Safeguards Information (SGI) was protected against unauthorized disclosure. Specifically, a document was discovered on May 24, 2011, which contained SGI was not properly marked and controlled for both electronic and hard copy formats. The document was on an electronic information system (a corporate database) that was not approved to process or

store SGI, and in hard copy format in a non-SGI approved storage container. The licensee's evaluation and corrective actions were documented in their corrective action program as CR 2011 0299. The finding is more than minor because if left uncorrected, the failure to protect SGI increases its likelihood of compromise and the potential for its disclosure to unauthorized individuals. The finding was assessed using Physical Protection Significance Determination Process (PPSDP) described in IMC 0609, Appendix E, Figure 3, and was preliminarily determined to be of low to moderate security significance (White). In addition, the finding had a crosscutting aspect in the area of problem identification and resolution associated with problem evaluation. Specifically, the licensee failed to thoroughly evaluate a previous loss of control of SGI event such that resolutions effectively addressed the causes and the extent of conditions that lead to this event [P1.c]

Physical Protection	10/12/2012	FCS	N/A	*SCWE: N	*HP: Y	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML12314A408](#) Discussed: [ML13254A412](#)

(PIM) Failure to Ensure that Safeguards Information is Protected against Unauthorized Disclosure

A violation of 10 CFR 73.21(a)(1)(i) was identified for the failure to ensure that Safeguards Information is protected against unauthorized disclosure. Specifically, from November 29, 2011, to June 25, 2012, the licensee failed to properly evaluate equipment used to reproduce Safeguards Information to ensure that unauthorized individuals could not access Safeguards Information on the equipment. The licensee implemented immediate compensatory measures and entered the issue into the site corrective action program as Condition Report CR 2012-05931. This finding and its corrective actions will be managed by the NRC's Inspection Manual Chapter 0350 Oversight Panel. The finding is more than minor because if left uncorrected it could become a more significant safety concern. Specifically, the failure to adequately protect SGI increases its likelihood of compromise and the potential for its disclosure to unauthorized individuals. The significance of this finding is bounded by the significance of the White violations documented in Inspection Report 05000285/2011406. In addition, the finding has a cross-cutting aspect in the decision-making component, conservative assumptions aspect, because the licensee failed to identify the possible unintended consequences of not ensuring the plotter did not have a hard drive. [H1.(b)]

Miscellaneous	09/30/2012	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (O)

Open: [ML12318A341](#)

(PIM) 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

Miscellaneous	07/19/2013	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
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Docket/Status: 05000285 (C)

Open: [ML14094A052](#) Discussed: [ML15071A115](#)

(PIM) Failure to Provide Complete and Accurate Information to the NRC

(Initial Entry) The team identified a cited Severity Level IV violation of 10 CFR 50.9, *Complete and Accurate*

Information, and an associated reactor oversight program finding (NCV 05000285/2013013-19, Failure to Translate Appendix R License Exemptions into the Plants Fire Protection Program Design), for the licensee's failure to provide information to the Commission that was complete and accurate in all material respects. Specifically, when responding to a request for additional information, the licensee supplied incorrect information to the NRC and this information was subsequently used by the NRC to support a license amendment for the station. This issue was entered into the station's corrective action program as Condition Report CR 2013-15021. The failure to provide the NRC with complete and accurate information when responding to a request for additional information was a performance deficiency. Using Inspection Manual Chapter 0612, Appendix B, Issue Screening, Figure 1, dated September 7, 2012, the team determined that the failure to provide complete and accurate information was a performance deficiency that required evaluation under both traditional enforcement and the reactor oversight program. The performance deficiency was determined to be more than minor because: (1) the information was considered material to the NRC's decision making process; and (2) it affected the equipment performance attribute of the Mitigating Systems Cornerstone with regard to availability, reliability, and capability of the raw water pumps to perform their safety function during a fire in the intake structure. Using Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process, the team determined the finding to have very low safety significance (Green) because it only affected the ability to reach and maintain cold shutdown conditions. Under the traditional enforcement review, the team determined that in accordance with Section 6.9.c.1 of the NRC Enforcement Policy, this finding represented a Severity Level III violation. Specifically, the team determined that if this information had been completely and accurately provided, it would likely have caused the NRC to undertake a substantial further inquiry. The NRC takes the issue of complete and accurate license submittals very seriously. For this reason, the NRC considered citing this as a Severity Level III violation, as discussed in the Enforcement Policy, as the NRC had approved a licensing action based on the incorrect information. However, after consideration by NRC management, and with the approval of the Director of the Office of Enforcement, it was determined that a Severity Level IV, cited violation was appropriate. This decision was based on the very low safety significance (Green) of the associated reactor oversight program finding (05000285/2013013-19). There was no cross-cutting aspect assigned to this finding because the inaccurate information was provided over three years ago and this issue does not reflect present licensee performance. (IR# 05000285/2013013 dated April 3, 2014) (Update and Closure) The team reviewed the licensee's corrective actions to address deficiencies related to VIO 05000285/2013013-20, Failure to Provide Complete and Accurate Information to the NRC. The licensee's corrective actions are documented in a letter to the NRC, dated October 8, 2013 (ML13282A557). Specifically, the letter documents that inaccurate information was provided to the NRC and clarifies the inaccurate information. The team reviewed these corrective actions and determined them to be adequate to correct the deficiency; therefore, VIO 05000285/2013013-20 is closed. (IR# 05000285/2015008 dated March 12, 2015)

Miscellaneous	02/15/2014	FCS	N/A	*SCWE: N	*HP: N	*PIR: N
Docket/Status: 05000285 (C)						
Open: ML14128A314 Discussed: ML14318A886						
(PIM) Untimely Submittal of Required Licensee Event Reports						
<p>Two examples of a cited Severity Level IV violation of 10 CFR 50.73, Immediate Notification Requirements for Operating Nuclear Power Reactors, were identified involving the failure to submit a required licensee event report (LER) within 60 days following discovery of an event requiring a report. In the first example, LER 2013-010-0 was submitted on July 2, 2013, seventy-nine days after the flow imbalance was observed by the licensee's staff. In the second example, LER 2013-017-0 was submitted to the NRC on December 27, 2013, 62 days after the event date on the licensee's reportability evaluation and sixty-six days after a condition report documented the reportable condition. The licensee initiated CR 2014-01358 on January 29, 2014 to document this repetitive violation. The violation was evaluated using Section 2.2.4 of the NRC Enforcement Policy, because the failure to submit a required LER may impact the ability of the NRC to perform its regulatory oversight function. As a result, this violation was evaluated using traditional enforcement. In accordance with Section 6.9(d)(9) of the NRC Enforcement Policy, this violation was determined to be a Severity Level IV violation. The inspectors 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.</p>						

Miscellaneous	09/12/2014	FCS	Green	*SCWE: N	*HP: N	*PIR: N
Docket/Status: 05000285 (O)						
Open: ML14318A886						
(PIM) Failure to Perform Evaluation for Design Change						
<p>A cited violation of 10 CFR 50.59, Changes, Tests, and Experiments, was identified involving the failure to evaluate if a change to the facility as described in the Updated Safety Analysis Report would require prior NRC review and approval. Specifically, the licensee did not evaluate a change that would permanently substitute a manual action for an automatic action to add water and nitrogen gas to the component cooling water surge tank. The licensee entered this issue into its corrective action program as Condition Report 2014-09080 and initiated action to evaluate the change to the component cooling water system. The NRC determined that the licensee's failure to perform an evaluation prior to implementing a proposed change described in the Updated Safety Analysis Report was a violation of 10 CFR 50.59. Because this performance deficiency had the potential to impact the NRC's ability to perform its regulatory function, the NRC evaluated the performance deficiency using traditional enforcement. In accordance with Section 2.1.3.E.6 of the NRC Enforcement Manual, the team evaluated this finding using the significance determination process to assess its significance. The NRC performed an initial screening of the finding in accordance with NRC Manual Chapter IMC 0609, Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Using IMC 0609, Appendix A, Exhibit 2, Mitigating Systems Screening Questions, dated July 1, 2012, the finding was of very low safety significance (Green) because it: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy this performance deficiency is being characterized as a Severity Level IV violation. The team determined that a cross-cutting aspect was not applicable to this finding because the issue was strictly associated with a traditional enforcement violation.</p>						