Cooper
4Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Sep 26, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Surveillance Procedures for Reactor Equipment Cooling
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the failure of the licensee to ensure compliance with the requirements of the station's Surveillance Procedure 6.1REC.101, "REC Surveillance Operation (IST) (DIV 1)," Revision 12. Specifically, operators failed to ensure that division one of the reactor equipment coolant system was maintained above 65 psig as required by procedure. This resulted in the system header low pressure alarm and isolation of the noncritical loop. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2012-05396.

The failure to follow the station's Surveillance Procedure 6.1REC.101 on August 9, 2012, was a performance deficiency. The performance deficiency was more than minor and is therefore a finding because it is associated with the human 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. Additionally, if left uncorrected, the failure to follow station procedures could become a more significant concern, in that the failure to follow site procedural requirements could render other safety-related equipment inoperable without the knowledge and approval of site management or control room personnel. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process For Findings At-Power." The inspectors determined that the finding was of very lowsafety significance (Green) because the finding did not involve both the complete or partial loss of a support system that contributes to the likelihood of, or causes, an initiating event and affected mitigation equipment. The finding was determined to have a cross-cutting aspect in the area of human performance, associated with the decision making component, because the licensee failed to use conservative assumptions. Specifically, operators failed to validate their assumptions of the noncritical system header isolation and system header low pressure alarm set points for reactor equipment cooling system and allowed system pressure to go below the procedurally required limit which resulted in the reactor equipment cooling system low header pressure alarm and an automatic isolation signal for noncritical header loop.
Inspection Report# : 2012004 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Appropriately Manage Risk for Maintenance in the Station's Switchyard
The inspectors identified a non-cited violation of 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," associated with the licensee's failure to manage risk associated with switchyard maintenance. Specifically, as a result of a risk assessment performed for planned work in the station's switchyard the licensee had identified required risk management actions for these activities to offset the increase in on-line risk. However, workers failed to implement these risk management actions during the performance of the work. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2011-12267.

The licensee's failure to implement required risk management actions to manage the increase in on-line risk during switchyard work was a performance deficiency. The performance deficiency was more than minor because it affected the protection against external factors attribute of the Initiating Events Cornerstone, and directly affected the

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, and is therefore a finding. Using Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," flowchart 2, "Assessment of RMAs," the inspectors determined the need to calculate the risk deficit to determine the significance of this issue. The inspectors contacted the regional senior reactor analyst who estimated the increase in risk caused by the unmonitored switchyard activity. For the five minute period of exposure, the frequency of the switchyard-centered loss of offsite power was increased by one order of magnitude. The result was an ICCDP of 1.0E-11. As such, this finding was determined to have very low safety significance. This finding had a cross-cutting aspect in the area of human performance associated with the work practices component, because the licensee failed to assure that human error prevention techniques, such as self and peer checking were used to assure that work activities were performed safely. Specifically, individuals working in the switchyard failed to self and peer check prior to moving aerial equipment in the switchyard without spotters.
Inspection Report# : 2012002 *(pdf)*

Significance: G Mar 27, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Follow Station Procedure Results in Inadequate Work Instructions
The inspectors documented a self-revealing finding associated with the licensee's failure to ensure the requirements of Station Procedure 0-CNS-52, "Control of Switchyard and Transformer Yard Activities at CNS," Revision 22, were implemented. Specifically, on February 2, 2012, the work order issued for use by transmission and distribution personnel for modification work in the stations 161 kV switchyard failed to thoroughly evaluate the work scope and provide sufficient detail for the workers to prevent affecting operating equipment. This inadequate work order resulted in tripping the startup station service transformer which resulted in an unplanned down power. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-00777.

The failure to follow the requirements of Station Procedure 0-CNS-52 and generate a work order with sufficient level of detail above skill of the craft which referred to appropriate references to provide necessary guidance for the work task was a performance deficiency. The performance deficiency was determined to be more than minor because it affected the procedure quality attribute of the Initiating Events Cornerstone, and it directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability during power operations, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding had a cross-cutting aspect in the area of human performance associated with the work practices component, because the licensee failed to ensure that supervisory and management oversight of contractor work in the station 161 kV transformer yard was sufficient to ensure that nuclear safety was supported.
Inspection Report# : 2012002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure for the Service Water Pump Room
The inspectors identified a non-cited violation of Technical Specification 5.4.1.a, associated with the inadequate Maintenance Procedures 7.2.15, "Service Water Pump Column Maintenance and Bowl Assembly Replacement," Revision 35, Maintenance Procedure 7.2.16, "Backup Fire Pump Maintenance", Revision 14, and Maintenance Procedure 7.2.30, "Service Water Strainer Maintenance," Revision 19. Specifically, those procedures did not address the number of required temporary heaters and required power sources during a loss of offsite power during design basis cold weather temperature of -5 degrees Fahrenheit with service water pump room hatches removed or doors open during maintenance. The issue was entered into their corrective action program for resolution as Condition

Reports CR-CNS-2012-07891, CR-CNS-2012-08184, and CR-CNS-2012-08371.

The licensee's inadequate procedural direction to establish temporary heating in the service water pump during cold weather condition with the hatches removed or doors open, was a performance deficiency. This performance deficiency was determined to be more than minor, and is therefore a finding, because it was associated with the procedural quality attribute of the Mitigating Systems Cornerstone, in that the inadequate procedures did not identify the number of temporary heaters and their power supplies that would be necessary to maintain the service water system operable/functional during a loss of offsite power coincident with the licensing basis cold weather conditions, and thereby affecting the associated cornerstone objective to ensure 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 G, "Shutdown Operations Significance Determination Process," Checklist 7, "BWR Refueling Operation with RCS Level > 23'," 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 and the finding did not constitute a loss of the diesel generator capable of supplying one division of the onsite safety related power distribution subsystems, as defined in Appendix G. The finding was determined to have a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program, in that the licensee failed to thoroughly evaluate an independent heating system.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Monitor the Performance of Roof Drains
The inspectors identified a non-cited violation of 10 CFR 50.65(a)(2), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants." Specifically, the licensee failed to appropriately consider the availability of the reactor building, diesel generator building,and control building roof drains when evaluating whether their performance or condition had been demonstrated to be effectively controlled. The licensee entered this issue in their corrective action program as Condition Report CR-CNS-2012-05993.

The licensee's failure to effectively monitor the performance of maintenance rule scoped equipment in accordance with 10 CFR 50.65(a)(2) was a performance deficiency. The performance deficiency was determined to be more than minor, and is therefore a finding, because it is associated with the protection against the external factors attribute of the Mitigating Systems Cornerstone, in that the failure to appropriately evaluate availability of the roof drains could result in their not being able to perform their intended function when required, thereby affecting 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, "The Significance Determination Process For Findings At-Power," the finding was determined to have very low safety significance (Green) because the finding did not involve the loss or degradation of equipment or function specifically designed to mitigate a flooding event. The inspectors determined that the apparent cause of this finding was that the licensee had performed an inadequate evaluation with regard to Condition Report CR-CNS-2011-01859 and failed to recognize and correct the lack of appropriate monitoring criteria for the roof drains. Therefore, the finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action component because the licensee failed to thoroughly evaluate problems such that the resolutions address causes.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedural Requirements During Roof Inspection
The inspectors 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 the requirements of Station Procedure 0.27.1, "Periodic Structural Inspections of Structures," Revision 7. Specifically, the licensee failed to identify and remove foreign material from the diesel generator building roof which could have interfered with the ability of the roof drains and scuppers to remove water during a flooding event. The issue was entered into the licensee's corrective action

program as Condition Report CR-CNS-2012-08833.

The failure to follow the requirements of a station procedure was a performance deficiency. The performance deficiency was determined to be more than minor, and is therefore a finding, because it is associated with the protection against the external factors attribute of the Mitigating Systems Cornerstone, in that the failure to recognize and remove foreign material from the diesel generator roof could have resulted in the roof drains and scuppers not being able to perform their intended function when required, thereby affecting 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, "The Significance Determination Process For Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding: (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 its 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 inspectors determined that the apparent cause of this finding was that the licensee had failed to use conservative assumption, when determining what constituted foreign material on the diesel generator roof. Therefore, the finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.
Inspection Report# : 2012005 *(pdf)*

Significance:  Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Consider All Relevant Information and Appropriately Assess Operability when a Degraded Nonconforming Condition was Identified
The inspectors identified a non-citied violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the licensee's failure to follow the requirements of Station Procedure 0.5OPS, "Operations Review of Condition Reports/Operability Determination," Revision 38, and properly document the basis for operability when a degraded or nonconforming condition is identified. Specifically, the inspectors identified that the licensee had failed to consider all relevant information when assessing operability of diesel generator 2, supported by service water system Division II, with service water system Division I hatches removed for Zurn strainer A replacement during design basis cold weather temperature of -5 degrees Fahrenheit with a loss of off-site power. The licensee entered these issues into their corrective action program for resolution as Condition Reports CR-CNS-2012-08148 and CR-CNS-2012-08292.

The licensee's failure to consider all relevant information and appropriately assess operability when a nonconforming condition was identified was a performance deficiency. This performance deficiency was determined to be more than minor, and is therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, in that the inadequate operability determination failed to identify the number of temporary heaters and their power supplies that would be necessary to maintain Division II of the service water system functional to support operability of diesel generator 2, during a loss of offsite power coincident with the licensing basis cold weather conditions, and thereby affecting the associated cornerstone objective to ensure 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 G, "Shutdown Operations Significance Determination Process," Checklist 7, "BWR Refueling Operation with RCS Level > 23'," 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 and the finding did not constitute a loss of the diesel generator capable of supplying one division of the onsite safety related power distribution subsystems, as defined in Appendix G. The inspectors determined that the apparent cause of this finding was that operators had failed to verify their assumptions associated with the compensatory measures to maintain service water system Division II function and support operability of diesel generator 2. Therefore, the finding has a

cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of the Service Water Booster Pumps
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to correctly translate certain parts of the design bases into installed plant equipment. Specifically, the licensee failed to ensure that unused flushing ports on the service water booster pump casing were either welded, or not installed, during procurement. This failure resulted in the licensee installing a new service water booster pump with unused flushing ports that were not welded during installation of service water booster pump D, which resulted in degradation of the pump's casing and the pump not being able to perform its specified safety function. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR-CNS-2012-07365 and CR-CNS-2012-07378.

The failure to maintain design control of the service water booster pumps was a performance deficiency. This performance deficiency was determined to be more than minor, and is therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone, in that the licensee installed a service water booster pump with an unused flushing port not welded, which resulted in degradation of the pumps casing and the pump not being able to perform its specified safety function, and thereby affecting the associated cornerstone objective to ensure 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 G, "Shutdown Operations Significance Determination Process," Checklist 7, "BWR Refueling Operation with RCS Level > 23'," 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 and the finding did not constitute a loss of shutdown cooling, as defined in Appendix G. 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 failed to thoroughly evaluate concerns with whether or not the unused flushing ports on service water booster pump D should be welded.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedure and Initiate Condition Reports When Degraded Nonconforming Conditions Were Identified
The inspectors 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 the requirements of Station Procedure 0.5CR, "Condition Report Initiation, Review, and Classification," Revision 19, and enter conditions adverse to quality in the station's corrective action program. Specifically, station personnel performing walkdowns for Temporary Instruction 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns," failed to initiate condition reports for degraded or nonconforming conditions as they were identified. The licensee entered this issue into their corrective action program for resolution as Condition Report CR-CNS-2012-06753.

The failure to follow the requirements of Station Procedure 0.5CR and initiate condition reports when degraded nonconforming conditions were identified was a performance deficiency. The performance deficiency was determined to be more than minor, and is therefore a finding, because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, in that the failure to write condition reports when degraded conditions were identified resulted in equipment being in an unevaluated state and its ability to perform its function being unknown, thereby affecting 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, "The Significance Determination Process For Findings At-Power," the finding was determined to have very low safety significance (Green) because the finding did not involve the loss or degradation of equipment or function specifically designed to mitigate a flooding event. The inspectors determined that the apparent cause of this finding was that licensee personnel failed to make safety/risk-significant decisions using a systematic process when degraded conditions were identified during in plant walkdowns. Therefore, the finding has a cross-cutting aspect in the area of human performance associated with the decision making component because the licensee failed to make safety/risk-significant decisions using a systematic process when faced with uncertain plant conditions.
Inspection Report# : 2012005 *(pdf)*

Significance: G Sep 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of the Emergency Diesel Generators Voltage Regulator Cabinets
The inspectors 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 the applicable design basis requirements associated with the emergency diesel generators' 1 and 2 voltage regulator cabinets were correctly translated into the plant design. Specifically, the licensee did not have an analysis that demonstrated that the emergency diesel generators' voltage regulator cabinets would remain operable following a design basis seismic event due to their close proximity to the emergency diesel generator switchgear cabinets. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2012-05618. The licensee subsequently performed an operability evaluation and determined emergency diesel generators would be operable following a design basis seismic event.

The licensee's failure to maintain design control of the emergency diesel generators' 1 and 2 voltage regulator cabinets was a performance deficiency. The performance deficiency is more than minor and is therefore a finding because it was associated with the design control attribute of the Mitigating Systems Cornerstone, in that the initial plant design failed to analyze for a potential seismic interaction between cabinents; as such, this affected the associated cornerstone objective to ensure 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 For Findings At-Power." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (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 its 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 did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2012004 *(pdf)*

Significance: G Sep 26, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Demonstrate that Emergency Diesel Generators can Perform Mutiple Air Starts from a Single Air Receiver
The inspectors identified a cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to assure that the applicable design basis for applicable structures, systems, and components were correctly translated into specifications, procedures, and instructions. as described in UFSAR section 5.3.3, a part of the design basis for a component to which this appendix applies is for each emergency diesel generator starting air receiver to be capable of providing sufficient air to perform multiple starts without immediate replenishment, and measures established by the licensee failed to assure that that part of the design bases was correctly translated into test procedures to verify that each emergency diesel generator starting air receiver is capable of providing sufficient air to

perform multiple starts without immediate replenishment. The violation is cited because the licensee failed to restore compliance in a reasonable time following documentation of the issue as a non cited violation in NRC Inspection Report 05000298/2010007, issued December 3, 2010, (ML103370640). The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR CNS 2012 05837.

The licensee's failure to ensure that the plant design bases were correctly translated into test procedures was a performance deficiency. This performance deficiency was determined to be more-than-minor and is therefore a finding because it was associated with the design control attribute of the Mitigating Systems Cornerstone, in that the licensee's failure to appropriately analyze or test the multiple-start capability of a single air receiver affected the associated objective to ensure 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, "Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (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 its 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-significance in accordance with the licensee's maintenance rule program. Since operators used non-conservative decisions when they evaluated the station's licensing basis when isolating and depressurizing air receiver 1B for emergency diesel generator 1, the finding has a cross-cutting aspect in the area of human performance associated with the decision making component because the licensee failed to use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Inspection Report# : 2012004 *(pdf)*

Significance:  Sep 26, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of the Reactor Equipment Cooling System
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to correctly translate certain parts of the design bases into documents used to order and install overload relays/heaters associated with the reactor equipment cooling system pump B motor. This failure resulted in the licensee installing incorrect overload relays/heaters which resulted in a trip of the reactor equipment cooling system pump B motor during normal operation. The issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-05389 and CR-CNS-2012-05401.

The licensee's failure to correctly translate certain parts of the design bases into procurement and installation documents for overload relays/heaters associated with the reactor equipment cooling system pump B motor was a performance deficiency. This performance deficiency was determined to be more than minor and is therefore a finding because it was associated with the design control attribute of the Mitigating Systems Cornerstone, in that this performance deficiency allowed the licensee to install an undersized overload relay/heater, which resulted in the pump tripping during normal operation, and thereby affecting the associated cornerstone objective to ensure 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 For Findings At-Power." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (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 its 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 inspectors determined that the apparent cause of this finding was that the licensee had changed their design documents prior to full implementation of a modification and had used the revised documents to plan work on

unmodified equipment. Therefore, the finding has a cross-cutting aspect in the area of human performance associated with resources component because the licensee failed to provide complete, accurate, and up-to-date design documentation.
Inspection Report# : 2012004 *(pdf)*

Significance: G Sep 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Control Vendor Changes to a Service Water Booster Pump
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the failure of the licensee to appropriately implement their configuration control process which resulted in unevaluated changes to the service water
booster pumps. Specifically, the licensee allowed their vendor to make undocumented changes to service water booster pumps, which resulted in a pump not being able to perform its specified safety function. The licensee entered this issue in their corrective action program as Condition Reports CR-CNS-2012-04600 and CR-CNS-2012-04628.

The failure to appropriately implement the station's configuration control process with respect to vendor changes to a service water booster pump was a performance deficiency. This performance deficiency was determined to be more than minor and is therefore a finding because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, in that unevaluated changes to a service water booster pump resulted in the pump not being able to perform it specified safety function, thereby affecting 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, "The Significance Determination Process For Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding: (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 its 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-significance in accordance with the licensee's maintenance rule program. The inspectors determined that the apparent cause of this finding was that the the licensee had decided to rely on purchase orders and vendor repair plans instead of evaluating configuration changes. Therefore, the finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.
Inspection Report# : 2012004 *(pdf)*

Significance: G Sep 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Assess and Manage Risk for Maintenance Activities That Affected the A Zurn Strainer
The inspectors identified a non-cited violation of 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to adequately assess and manage the increase in risk associated with maintenance activities. Specifically, on June 20, 2012, and July 27, 2012, licensee personnel failed to adequately assess and manage the increase in risk associated with Zurn strainer maintenance activities. This finding was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-04182 and CR-CNS-2012-05006.

The licensee's failure to adequately assess and manage the increase in risk associated with Zurn strainer maintenance activities was a performance deficiency. This performance deficiency was determined to be more than minor and is therefore a finding because it affected the equipment performance attribute of the Mitigating Systems Cornerstone, in that the licensee failed to recognize the Zurn strainers were unavailable, thereby directly affecting the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk

Management Significance Determination Process," Flowchart 1, "Assessment of Risk Deficit," inspectors determined the need to calculate the risk deficit to determine the significance of this issue. Therefore, a senior reactor analyst performed a bounding detailed risk evaluation. The analyst determined that the event would be time dependant, alarms would alert operators of the issue before the function would be lost, and recovery actions were available to bypass the strainers. The result was the incremental core damage probability was determined to be less than 1 X 10-6, so the finding was determined to be of very low safety significance (Green). The inspectors determined that the apparent cause of this finding was that operators had failed to verify their assumptions associated with using manual actions to maintain equipment available. Therefore, finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.
Inspection Report# : 2012004 *(pdf)*

Significance: G Sep 26, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Provide Procedure Appropriate to the Circumstance of Assembling the Zurn Strainer
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" associated with the licensee's failure to provide complete, accurate, and up-to-date procedures for proper installation of the gearbox coupling setscrews for Zurn Strainer A. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2012-04710.

The licensee's failure to provide complete, accurate, and updated procedures for proper installation of the gearbox coupling setscrews for Zurn Strainer A was a performance deficiency. This performance deficiency was determined to be more than minor and is therefore a finding because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, in that an inadequate procedure caused a loss of a safety function of the A Zurn strainer, which affected the availability of the strainer; as such, this directly 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, "The Significance Determination Process For Findings At-Power," the inspectors determined that the finding is of very low safety significance (Green) because the finding: (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 its 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 inspectors determined that the apparent cause of this finding was that the licensee's evaluation documented in Condition Report CR-CNS-2010-02213 had not resulted in appropriate corrective actions to address the cause of the Zurn strainer coupling failure. Therefore, 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 safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.
Inspection Report# : 2012004 *(pdf)*

Significance: G Sep 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Consider All Relevant Information and Appropriately Assess Operability When A Degraded Nonconforming Condition Was Identified
The inspectors 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 the requirements of Station Procedure 0.5OPS, "Operations Review of Condition Reports/Operability Determination," and properly document the basis for operability when a degraded or nonconforming condition is identified. Specifically, inspectors identified that the licensee had failed to consider all relevant information when assessing operability of service water booster pump B

when a degraded condition was identified which resulted in their failure to recognize the pump as inoperable. The licensee entered these issues into their corrective action program for resolution as Condition Reports CR-CNS-2012-04903 and CR-CNS-2012-04925.

The licensee's failure to consider all relevant information and appropriately assess operability when a degraded nonconforming condition was identified was a performance deficiency. This performance deficiency is more than minor and is therefore a finding because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone, in that the inadequate operability evaluation failed to recognize the unavailability of the service water booster pump, as thereby 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, "The Significance Determination Process For Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding: (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 its 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-significance in accordance with the licensee's maintenance rule program. The inspectors determined that the apparent cause of this finding was that operators had assumed that the oil level was adequate since it could be refilled without quantifying a leak rate. Therefore, the finding has a cross-cutting aspect in the area of human performance associated with the decision making component because the licensee failed to use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.
Inspection Report# : 2012004 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Adequate Postmaintenance Testing
The inspectors documented a self revealing, non cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the licensee's failure to develop and specify adequate postmaintenance testing requirements in work instructions used to perform maintenance on emergency diesel generator 1. Specifically, in October 2011, Work Order 4766672 did not specify adequate postmaintenance testing instructions to verify that the left bank air distributor was properly re-installed following a change in work scope. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-02532 and CR-CNS-2012-02566.

The licensee's failure to establish adequate work instructions, to include post maintenance testing requirements to verify equipment operability following maintenance, was a performance deficiency. The performance deficiency was more than minor because it affected the procedure quality attribute of the Mitigating Systems Cornerstone, and 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, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding screened as potentially risk significant since the finding represented an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time. When evaluated per Inspection Manual Chapter 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," and the Cooper Phase 2 pre-solved table item, "EDG1," the inspectors determined this finding to be of very low safety significance (Green). This finding had a cross cutting aspect in the area of human performance associated with the resources component, because the licensee failed to provide complete, accurate and up to date work packages that specified the appropriate post maintenance testing requirements following work scope change.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure Compliance with the Requirements of Station Troubleshooting Procedure
The inspectors documented a self-revealing, non cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the failure of the licensee to ensure compliance with the requirements of the station's trouble shooting plan generated in accordance with Procedure 7.0.1.7, Revision 15, "Troubleshooting Plant Equipment." Specifically, licensee personnel failed to ensure that ground isolated test equipment was used during troubleshooting activities that affected the 250 Vdc bus. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2012-02717.

The failure to follow the troubleshooting plan was a performance deficiency. The performance deficiency was determined to be more than minor 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, and is therefore, a finding. Specifically, the licensee failed to ensure that ground isolated test equipment was used as specified in the troubleshooting plan contained in Work Order 4863518, "Troubleshooting SS IVTR UPS2 and Transfer Switch," causing a ground and 0.8 volt drop on the 250 Vdc Bus 1A. The inspectors evaluated the finding using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. The finding was determined to have a cross cutting aspect in the area of human performance, associated with the decision making, because the licensee failed to use conservative assumptions and conduct effectiveness reviews to validate the underlying assumptions that ground isolated test equipment was used as specified in the troubleshooting plan.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Recognize the Need for An Evaluation and to Properly Document the Bases for Operability
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 failure of the licensee to recognize the need for an evaluation and to properly document the bases for operability when a degrading nonconforming condition was identified. Specifically, the licensee did not consider all relevant information when assessing: (1) the diesel generator 1's jacket water heater seismic operability with only two bolts fully engaged and; (2) the impact of a free floating absorbent bag discovered in the diesel generator 2's room sump for internal flooding analysis for a medium energy line break. The licensee entered these issues into their corrective action program for resolution as Condition Reports CR-CNS-2012-03137 and CR-CNS-2012-02767.

The licensee's failure to recognize the need for an evaluation and to properly document the bases for operability when a degraded nonconforming condition was identified was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the equipment performance 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 is therefore a finding. The inspectors evaluated the finding using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. The finding was determined to have a cross cutting aspect in the area of human performance, associated with decision making, because the licensee failed to use conservative assumptions and conduct effectiveness reviews to validate the underlying assumptions when determining diesel

generator 1's jacket water heater seismic operability with only two bolts fully engaged and impact of a free floating absorbent bag in diesel generator 2's room sump for internal flooding analysis for a medium energy line break.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of the Standby Liquid Control System and Sumps Credited in the Internal Flooding Analysis
The inspectors identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to: (1) assure that the applicable seismic design basis requirements associated with the standby liquid control system storage tank was correctly translated into the plant design to ensure that the standby liquid control system would remain operable following a seismic event and; (2) maintain design control of sumps credited in the station's internal flooding analysis. These issues were entered into the licensee's corrective action program as Condition Reports CR CNS 2012 01918 for the standby liquid storage tank and CR-CNS-2012-02414, CR-CNS-2012-02426, CR-CNS-2012-02509, CR-CNS-2012-02510, CR-CNS-2012-02752, and CR-CNS-2012-02767 for the oil absorbent bags.

The licensee's failure to maintain design control of the standby liquid control system and sumps credited for the station's internal flooding analysis 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 is therefore a finding. The inspectors evaluated the finding using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. The finding was determined to have a cross cutting aspect in the area of problem identification and resolution, associated with the corrective action component: (1) the licensee failed to thoroughly evaluate concerns with seismic analysis of the standby liquid control system such that the resolution addresses causes an extent of conditions, as necessary, during the development of NEDC 12-015; (2) the licensee had the opportunity in 2010 and early 2012 during reviews of the internal flooding analysis to identify that oil absorbent bags contained in the sumps credited in the internal flooding analysis did not contain an analysis and where an unapproved modification.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Furnish Evidence of an Activity Affecting Quality
The inspectors 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 emergency diesel generator jacket water cooling pumps. Specifically, the licensee failed to maintain design documents that detailed the amount of net positive suction head required for the diesel generator jacket water pumps to ensure that at the current low level alarm set point the pumps would not cavitate and potentially be damaged. The licensee generated a bounding operability evaluation to address this issue. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-03262, and CR-CNS-2012-03305.

The licensee's failure to furnish evidence that showed the required net positive suction head for the jacket water pump was maintained at the current low level alarm set point was a performance deficiency. The performance deficiency was determined to be more than minor 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, and is therefore a finding. Using Inspection Manual Chapter 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the finding was determined to have very low safety significance (Green) because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of system or train; did not result in the loss of one or more trains of nontechnical specification equipment; and did not screen as potentially risk-significant due to seismic, flooding, or a severe weather initiating event. This finding did not have a cross cutting aspect because the most significant contributor of this finding did not reflect current licensee performance.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Design Changes Not Appropriately Approved by the Licensee
The inspectors 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 design changes were subject to design control measures commensurate with those applied to the original design and were approved by the designated responsible organization. Specifically, the licensee received a design level calculation from a vendor in support of service water pump C change out but failed to appropriately review, accept and enter this calculation into their design basis. This issue was entered into the licensee’s corrective action program as Condition Report CR-CNS-2012-03634.

The licensee’s failure to ensure that changes to the facility were subject to design control measures commensurate with those applied to the original design, and were approved by the designated responsible organization was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the design control attribute of 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 is therefore a finding. Using Inspection Manual Chapter 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the finding was determined to have very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. This finding had a cross cutting aspect in the area of human performance associated with the work practices component, because the licensee failed to adequately define and effectively communicates expectations regarding procedural compliance and personnel failed to follow procedures. Specifically, engineering department personnel failed to follow station procedures when receiving a new design basis calculation from a vendor.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate Changes for Adverse Impacts
The inspectors identified four 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 the requirements of station procedure 0.8, “10CFR50.59 and 10CFR72 .48 Reviews,” and evaluate changes made to safety related components for adverse impacts. Specifically, the inspectors identified four instances where the licensee personnel in multiple work groups failed to follow the requirements of station procedure 0.8 and evaluate changes being made to safety related components for potentially adverse impacts prior to implementing these changes. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-02750, CR-CNS-2012-03366, CR-CNS-2012-03806, CR-CNS-2012-04033, and CR-CNS-2012-04456.

The failure of station personnel to follow the requirements of station procedure 0.8, “10CFR50.59 and 10CFR72 .48

Reviews," for modifications to safety related equipment was a performance deficiency. The performance deficiency was determined to be more than minor because if left uncorrected the continued practice of modifying the facility without evaluating for adverse impacts has 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 affects the Mitigating Systems Cornerstone. Using Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was 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. The finding was determined to have a cross cutting aspect in the area of human performance, associated with the decision making component in that the licensee failed to use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Non-conservative Service Water Booster Pump A and D Differential Pressure Operability Limits During In-Service Surveillance Testing
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Controls," for the licensee's non-conservative service water booster pump A and D differential pressure operability limits. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2012-02497 and CR-CNS-2012-02500.

The licensee's nonconservative service water booster pump A and D differential pressure operability limits was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the procedural 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, and is therefore a finding. Specifically, the pump differential pressure operability limit for service water booster pump A and D was not correctly stated in the In-service Testing program so that the pumps would meet their 30 day mission time for a design basis accident with a degrading pump differential pressure. The inspectors evaluated the finding using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. The finding was determined to have a cross cutting aspect in the area of problem identification and resolution, associated with the corrective action component, in that, the licensee failed to thoroughly evaluate concerns with operability limit for service water booster pump A and D such that the resolution address causes an extent of conditions, as necessary. Specifically, operability lower limit was identified during the initiation of Condition Report CR-CNS-2011-07980, but the licensee failed to update the operability limits during the review of the condition report.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of the Essential Ventilation System
The inspectors identified a non-cited violation of 10 CFR 50 Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to ensure that the control buildings essential ventilation system would maintain

battery room temperatures such that the batteries would remain operable under all design conditions. Specifically, the essential ventilation system does not provide a heat source for the battery rooms and during cold weather conditions cannot maintain room temperatures above the minimum required for operability without the use of portable heaters. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-00724.

The licensee's failure to ensure that the essential ventilation system would support battery operability under all design conditions was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the equipment performance 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 is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or server weather initiating event. This finding had a cross-cutting aspect in the area of human performance, associated with the decision-making component in that the licensee failed to conduct adequate effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, and identify possible unintended consequences. Specifically, the licensee failed to recognize the use of portable heaters as a manual action which indicated an inadequate ventilation design.
Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Fail to Correct a Condition Adverse to Quality for Determining the Number of Multiple Starts for a Single Diesel Generator Starting Air Accumulator
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to prepare an adequate design calculation demonstrating that a single diesel generator starting air accumulator was capable of performing multiple starts of an emergency diesel generator. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2012-03039.

The licensee's failure to prepare an adequate design calculation demonstrating that a single diesel generator starting air accumulator was capable of performing multiple starts of an emergency diesel generator 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 objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. The inspectors evaluated the finding using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. The finding was determined to have a cross cutting aspect in the area of human performance, associated with the decision making, because the licensee failed to use conservative assumptions and conduct effectiveness reviews to validate the underlying assumptions when determining the number of multiple starts on one diesel generator starting air accumulator.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Design-Basis Parameter Values in Design-Related Calculations
The inspectors identified a non cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to ensure that design bases parameters documented in the Updated Safety Analysis Report

were used for station activities. Specifically, the licensee based an operability evaluation and a door breach sensitivity study on a parameter value determined in a calculation instead of the value documented in the Updated Safety Analysis Report because they failed to recognize information in Final Safety Analysis Report Amendment 25 that described the turbine building sidings response to a high energy line break as design bases information. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2011-10391 and CR-CNS-2011-11861.

The licensee's failure to maintain design control when performing an operability evaluation and sensitivity study, with respect to the turbine building high energy line break analysis, is a performance deficiency. This performance deficiency was determined to be more than minor because if left uncorrected, the licensee's practice of basing design-related analyses on parameter values that don't represent the design bases has the potential to lead to a more significant safety concern. Specifically, if the licensee bases analyses on a particular parameter value that doesn't represent the design bases and if that parameter value differs from the corresponding design-basis value in a nonconservative manner, then the licensee could reasonably complete an operability assessment based on the nonconservative parameter value and determine that a safety-related system is operable, when an operability assessment based on the design-basis parameter value would have determined that the system is inoperable. As a result, a safety-related system could remain in an undetected inoperable state for an indefinite period of time, and is therefore a finding. Using Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined this finding has very low safety significance (Green) because it: (1) was 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 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 seismic, flooding, or a severe weather initiating event. The finding was determined to have a cross cutting aspect in the area of human performance, associated with the decision-making component in that the licensee failed to use conservative assumptions in decision making when they failed to recognize and control design bases information.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 15, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Analyze Seismic Requirements for Service Water Instrument Rack
The team identified a Green noncited 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 specifications, drawings, procedures, and instructions." Specifically, prior to March 8, 2012, the licensee failed to incorporate the seismic/barge impact loadings using a +Y (vertical up) component in combination with the lateral loads, which would result in the highest concrete anchor bolt interaction, into Calculation NEDC 12-20 for the service water instrument rack. Also, the calculation incorrectly utilized a factor of safety of four for the anchor bolts, where as the Updated Safety Analysis Report, Appendix C 2, Section 2.10, specified a factor of safety of five. This finding was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-01665.

The team determined that the failure to incorporate the seismic/barge impact loadings using a +Y (vertical up) component in combination with the lateral loads into calculation NEDC 12-20, and using an incorrect safety factor for the instrument rack anchor bolts 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 of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the issue was determined to have very low safety significance (Green) because it was a design deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee revised the associated calculations to include the correct required standards, and the calculation was acceptable. This finding was determined to have a crosscutting aspect in the area of human performance, associated with the work practices component because the licensee did not ensure that supervisory or management oversight of the work activities, including contractors, were such that nuclear safety was supported.
Inspection Report# : 2012007 *(pdf)*

Significance: G Jun 15, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Resistance Values for the Preventative Maintenance of the Non-Segregated Phase Bus Duct
The team identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate acceptance limits contained in applicable documents." Specifically, prior to April 4, 2012, for the Startup Station Service Transformer (SSST), the licensee did not use the actual measured bus bar resistance values which exceeded the calculated values. This resulted in non-conservative values used in Calculation NEDC 00-003, which did not bound actual plant parameters. Also, for the Emergency Station Service Transformer (ESST), the current procedure has a resistance acceptance tolerance specified as 1 Ohm, and in Condition Report CR-CNS-2011-11750, the licensee found the actual measured value was in the milliohms, which should have been used as the acceptance criteria in the procedure. This finding was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-02358 and CR-CNS-2012-02359.

The team determined that the failure to provide adequate acceptance criteria for the bus duct resistance for the Emergency Station Service Transformer and the Startup Station Service Transformer was a performance deficiency. This finding was more than minor because it was associated with the test control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the issue was determined to have very low safety significance (Green) because it was a test deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee performed an engineering justification for the bus resistance acceptance criteria based on the difference between the as measured resistance values and those values used in the voltage regulation study, and found the values acceptable. 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 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.

Inspection Report# : 2012007 *(pdf)*

Significance: G Jun 15, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Address the Design Bases of the Battery Chargers Following Identification of an Undersized Fused Disconnect Switch Connecting the Swing Battery Chargers to the Direct Current (DC) Buses
The team identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," which states, in part, "measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition." Specifically, in 2005, the licensee performed a review of the "C" swing battery charger disconnect switch fuses and their ratings, documented in Condition Report CR-CNS-2005-09378. However, the actions associated with this Condition Report did not evaluate the Updated Safety Analysis Report emergency event function which states that each battery charger shall have adequate capacity to restore its battery to full charge from a totally discharged condition while carrying the normal station steady state direct current load. This finding was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-01611.

The team determined that the failure to adequately assess all design requirements during the review of Condition Report CR-CNS-2005-09378 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 of ensuring the availability, reliability, and capability of systems that respond to initiating events

to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding represented a loss of system safety function requiring a Phase 2 evaluation. The Region IV Senior Reactor Analyst concluded that a Phase 3 evaluation was needed to address the issue because it departed from the guidance provided for Phase 1 or Phase 2. Using NRC Inspection Manual Chapter 0609, and Standardized Plant Analysis Risk (SPAR) model, the Senior Reactor Analyst identified that the frequency of events where the defective swing charger would affect core damage sequences were very low, that a station blackout restored by offsite power within one hour would not be expected to result in a failure of the swing charger, and it would be likely that the other battery charger would successfully charge the associated direct current bus and battery and result in a successful recovery. Therefore, the issue was determined to have very low significance (Green). This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Inspection Report# : 2012007 *(pdf)*

Significance:  Jun 15, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish a Preventative Maintenance Program for Molded Case Curcuit Breakers
The team identified a Green noncited 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 specifications, drawings, procedures, and instructions. The 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 April 4, 2012, the licensee failed to perform an adequate review of the design basis requirements to establish a preventive maintenance program for molded case circuit breakers located in the safety-related station battery chargers and important to safety battery inverters. This finding was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-1647 and CR-CNS-2012-1664.

The team determined that the failure to adequately review the design basis requirements, and not establishing a preventive maintenance program for molded case circuit breakers located in the safety-related station battery chargers and important to safety battery inverters, 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 of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the issue was determined to have very low safety significance (Green) because it was a design deficiency confirmed not to result in loss of operability or functionality. Specifically, there have not been any failures of these molded case circuit breakers attributed to lack of preventative maintenance. This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2012007 *(pdf)*

Significance:  Jun 15, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Have an Adequate Procedure for Erecting Flood Barriers
The team identified a Green noncited violation of Technical Specification 5.4.1.a, which states, in part, "Written procedures shall be established, implemented, and maintained, covering the procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A.6.w, Acts of Nature (e.g., tornado, flood, dam failure, earthquakes)." Specifically, prior to April 4, 2012, the licensee failed to maintain Procedure 7.0.11, Flood Control Barriers, Revision 24, to ensure the materials required to construct flood protection barriers were correctly listed and inventoried, to effectively protect personnel and equipment doors around the perimeter of the facility. This finding was entered into the licensee's corrective action program as Condition Report CR CNS 2012-01920.

The team determined that the failure to maintain Cooper Nuclear Station Operations Procedure 7.0.11, "Flood Control

Barriers," Revision 24, with an adequate inventory of required materials listed in the procedure, 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. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding was potentially risk significant due to a seismic, flooding, or severe weather initiating event and a Phase 3 analysis was required. A Region IV Senior Reactor Analyst performed a Phase 3 significance determination using NRC Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." In accordance with Appendix M, the Senior Reactor Analyst determined that although it is not certain that the licensee could erect all of the flood barriers within 72 hours, it is likely that they could finish barriers to the emergency diesel generators and emergency core cooling systems in time to provide vital power and injection capabilities within the time required. Also, it is likely that extraordinary efforts could be taken to complete the barriers if the licensee was falling behind their time line, with knowledge of the timing of the arrival of flood waters. The failure of the Missouri River dams would most likely begin with incipient failure symptoms, providing extra time for the licensee to stage and prepare for the erection of barriers. Therefore, the issue was determined to have very low safety significance (Green). This finding was determined to have a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.

Inspection Report# : 2012007 *(pdf)*

Significance: G Jun 15, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Incorporate all Design and Technical Data Available into the Operability Determinations for the Standby Liquid Control Tank and Test Tank
The team identified a Green noncited violation, with two examples, 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 instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Specifically, prior to April 4, 2012, the licensee did not follow the requirements of Cooper Nuclear Station Operations Manual Administrative Procedure 0.5.OPS, "Operations Review of Condition Reports/Operability Determination," Section 6 "Prompt Determination," Step 6.1.1.6. This step requires the use of Attachment 3, Item 3, which addresses design basis assumptions, descriptions, calculations, or values used in the Cooper Nuclear Station Updated Safety Analysis Report shall be used to ensure all aspects of the condition are addressed. For two, separate, Prompt Operability Determinations, one for the standby liquid control test tank, and the second one for the standby liquid control tank, the licensee had not considered the effect of vertical seismic loading in their calculation as identified in the Updated Safety Analysis Report (Table -3-7 page C-3-73). These findings were entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-001214, CR-CNS-2012-001232, CR-CNS-2012-001651, CR-CNS-2012-001918 and CR-CNS-2012-01962.

The team determined that the failure to follow the requirements of Cooper Nuclear station Operations Manual Administrative Procedure 0.5.OPS, "Operations Review of Condition Reports/Operability Determination," Step 6.1.1.6, was a performance deficiency. This finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the issue was determined to have very low safety significance (Green) because it was a design deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee revised the associated calculations to include the correct required standards, with acceptable results. This finding was determined to have a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to properly classify, prioritize, and evaluate for operability and reportability, conditions adverse to quality.

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Inspection Report# : 2012007 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control for Internal Flooding
The inspectors 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 the applicable design basis requirements associated with the station's internal flooding analysis in response to a feed water line break was correctly translated into the plant design. Specifically, the licensee used incorrect assumptions when modeling critical channel widths for water flow on the 903 feet elevation of the reactor building which resulted in an inadequate calculation for
ensuring that required safety related equipment would remain operable following a feed water line break event. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-00451 and CR-CNS-2012-01218.

The licensee's failure to maintain design control with respect to the internal flooding analysis 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 is therefore a finding. The inspectors evaluated the finding using IMC 0609.04 "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action component, because the licensee failed to thoroughly evaluate problems such that the resolutions addressed causes. By failing in 2010,to identify and model critical channel widths for water flow into their flood analysis, the licensee did not have assurance that safety related equipment would remain operable following a feed water line break event.
Inspection Report# : 2012002 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Scope Required Components in the Station's Maintenance Rule Monitoring Program
The inspectors identified two examples of a non-cited violation of 10 CFR 50.65(b)(2)(i) associated with the licensee's failure to monitor nonsafety-related structures, systems or components that are relied upon to mitigate accidents or transients. Specifically, the licensee did not include either the emergency diesel generator rooms sump high level alarm switches, or the reactor building quad sump pumps, which were relied upon in the station design calculations for mitigating the effects of a moderate energy line break, in the scope of the maintenance rule monitoring program specified in 10 CFR 65(a)(1). This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2012-00288, CR-CNS-2012-01585 and CR-CNS-2012-02144.

The licensee's failure to effectively monitor the performance of both the diesel generator rooms sump high level switches and the reactor building quads sump pumps in accordance with 10 CFR 50.65(a)(1) was a performance deficiency. The performance deficiency was determined to be more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone, and directly affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because the maintenance rule aspect of the finding is not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of a single train system for greater than the technical specification allowed outage time, and was not made risk-significant because of external events. This finding had a cross-cutting

aspect in the area of problem identification and resolution associated with the corrective action component, because the licensee failed to thoroughly evaluate problems such that the resolutions addressed causes. Specifically, the licensee had an opportunity to identify these maintenance rule scoping issues in 2011, but failed to do so.
Inspection Report# : 2012002 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of Standby Liquid Control System
The inspectors 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 the applicable design basis requirements associated with the standby liquid control system test tank were correctly translated into the plant design to ensure that the standby liquid control system would remain operable following a seismic event. The licensee entered this deficiency into their corrective action program for resolution as CR-CNS-2012-01214, CR-CNS-2012-01224, CR-CNS-2012-01232, and CR-CNS-2012-01651. The licensee subsequently performed station calculation NEDC 12-015 "Standby Liquid Control Test Tank Seismic Evaluation" that determined that the standby liquid control system would be operable following a seismic event with the standby liquid control system test tank full.

The licensee's failure to maintain design control of standby liquid control system 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 because there were questions as to whether or not the standby liquid control system would remain functional during a seismic event. The inspectors evaluated the finding using IMC 0609.04 "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was 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 system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; (4) did not screen as potentially risk significant due to seismic, flooding, or server weather initiating event. This finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2012002 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Unevaluated Pre-conditioning for Core Spray Motor-operated Valves prior to Conducting As Found In-service Surveillance Testing
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Controls," for the licensee's unevaluated preconditioning of core spray motor operated valves prior to performing as-found inservice stroke time testing. The licensee entered this deficiency into their corrective action program for resolution as CR-CNS-2012-01070.

The licensee's unevaluated preconditioning of core spray motor operated valves prior to performing as-found inservice stroke time testing was a performance deficiency. The performance deficiency was determined to be more than minor 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. Specifically, unevaluated preconditioning of valves could mask their actual as-found conditions and result in an inability to verify their operability, as well as, make it difficult to determine whether the valves would perform their intended safety function during an event. The inspectors evaluated the finding using Manual Chapter 0609.04 "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because the finding was confirmed not to result in a loss of operability or functionality of the core spray system. The finding has a cross-cutting aspect in the area of human performance associated with resources component because the

licensee did not provide complete, accurate, and up-to-date procedures and work packages to prevent precondition of valves prior to testing.
Inspection Report# : 2012002 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Furnish Evidence of an Activity Affecting Quality
The inspectors identified a non-cited violation of 10 CFR 50 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 station's analysis of a high-energy line break in the turbine building. To correct this condition, the licensee initiated actions to reconstitute the design calculation. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-01905.

The licensee's failure to furnish evidence of completing the calculation of the pressure at which turbine building siding would blow out was a performance deficiency. The performance deficiency was determined to be more than minor and is 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, in that the lack of evidence of completing the calculation of the pressure at which turbine building siding would blow out calls into question the results of that calculation, which was part of the analysis completed to substantiate that the design of CNS is adequate. Using Manual Chapter 0609, Attachment 4, "Phase 1 Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of system or train; did not result in the loss of one or more trains of nontechnical specification equipment; and did not screen as potentially risk-significant due to seismic, flooding, or a severe-weather initiating event. This finding did not have a cross-cutting aspect because the most significant contributor of this finding (which could not be determined) must have occurred during the early 1970s and therefore does not reflect current licensee performance.
Inspection Report# : 2012002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Exercise Performance Deficiencies
The inspectors identified the licensee's failure to correct weaknesses occurring during the biennial emergency preparedness exercise conducted July 31, 2012. The licensee's failure to identify problems in implementing radiation protection measures for emergency workers as weaknesses requiring correction was a performance deficiency. This finding was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-05199.

This finding is more than minor because it affects the emergency response organization readiness cornerstone attribute. The finding was evaluated using the Emergency Preparedness Significance Determination Process and determined to be of very low safety significance because it was a failure to comply with NRC requirements and was not a loss of the planning standard function; the weaknesses that were not corrected were not associated with risk-significant planning standards. This finding is a non-cited violation of 10 CFR 50.47(b)(14) and Appendix E to Part 50, Section IV.F(2)(g). The finding was assigned a cross-cutting aspect in the area of Problem Identification and

Resolution because the licensee failed to completely and accurately identify weak performance during an exercise.
Inspection Report# : 2012004 *(pdf)*

Occupational Radiation Safety

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Perform Radiation Surveys Before Allowing Work to Commence
The inspectors reviewed a self-revealing, non-cited violation of 10 CFR 20.1501(a), "Standards for Protection against Radiation," Subpart F, "Surveys and Monitoring," associated with the licensee's failure to perform an adequate radiation survey to determine and evaluate radiological hazards workers could be exposed to during a planned work activity. The licensee entered this issue into the station's corrective action program as Condition Report CR-CNS-2012-09336.

The failure to perform an adequate radiation survey was a performance deficiency. This performance deficiency was determined to be more than minor, and is therefore a finding, because it was associated with the program and process attribute (exposure control) of the Occupational Radiation Safety cornerstone, in that workers were allowed to enter an area of unknown radiation dose rates and received an unintended and unexpected radiation exposure, thereby affecting the associated cornerstone objective to ensure the adequate protection of the worker's health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the finding was determined to be of very low safety significance (Green) because: (1) it was not associated with as low as is reasonably achievable (ALARA) planning; (2) it did not involve an overexposure; (3) there was no substantial potential for an overexposure; and (4) the licensee's ability to assess dose was not compromised. The inspectors determined that the apparent cause of this finding was that radiation protection personnel at the control point failed to verify their assumptions associated with current survey data prior to allowing workers into a locked high radiation area. Therefore, this finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to use conservative assumptions in decision-making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Radiation Protection Procedures
The inspectors reviewed a self-revealing, non-cited violation of Technical Specification 5.4.1.a, which resulted from a worker failing to follow radiation protection procedures. In response, the licensee investigated the occurrence, coached the individual on human performance, and entered the issue into the corrective action program as Condition Report CR-CNS-2011-04915.

The failure to follow radiation protection procedures was a performance deficiency. The performance deficiency was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (exposure control) of program and process and affected the cornerstone objective in that working outside the scope of procedures by accessing the higher dose rates behind the installed shielding had the potential to increase personnel dose. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspectors determined the finding 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 finding had a cross-cutting aspect in the human performance area, work practices component, in that the licensee failed to provide adequate management oversight of work activities such that nuclear safety was maintained.

Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Perform an Adequate Radiological Survey
The inspectors reviewed a self-revealing, non-cited violation of 10 CFR 20.1501(a) for the licensee's failure to perform an adequate radiological survey. In response, the licensee immediately restricted access to the torus area, performed a follow-up survey, and entered the issue into the corrective action program as Condition Report CR-CNS-2012-07577.

The failure to perform an adequate radiological survey is a performance deficiency. The performance deficiency was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (exposure control) of program and process and affected the cornerstone objective in that the inadequate survey did not ensure exposure control for radiation workers. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspectors determined the finding 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 finding had a cross-cutting aspect in the human performance area, work control component, because the licensee failed to incorporate job site conditions that impacted radiological safety.
Inspection Report# : 2012005 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Radiation Work Permit Requirements
The inspectors identified a non cited violation of Technical Specification 5.4.1, associated with station personnel's failure to follow radiation work permit requirements. Specifically, inspectors observed workers breaching a contaminated system during planned maintenance activities without radiation protection personnel present as specified by the radiation work permit requirements. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2012-02716.

The inspectors determined that the failure of craft personnel to follow radiation work permit requirements when breaching contaminated systems was a performance deficiency. The performance deficiency was determined to be more than minor because if left uncorrected, the continued failure of craft personnel to follow radiation work permit requirements when breaching contaminated systems could become more significant, in that, it could lead to personnel contamination events and unplanned/unexpected dose, and is therefore a finding. The finding was associated with the Occupational Radiation Safety Cornerstone. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspector determined the finding to be of very low safety significance because: (1) it was not associated with as low as 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 was determined to have a cross cutting aspect in the area of human performance, associated with the decision-making component in that workers failed to use conservative assumptions in decision making when breaching a contaminated system for maintenance.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Perform a Radiation and Contamination Survey
The inspectors reviewed a self revealing, non cited violation of 10 CFR 20.1501(a) for the failure to perform adequate radiation and contamination surveys. Specifically, a survey was not performed prior to power washing the reactor

vessel studs during reactor cavity decontamination work as part of Refueling Outage 26. The absence of a survey resulted in an unanticipated airborne radioactivity area and unintended, unplanned dose to five workers. The issue was documented in Condition Report CR CNS 2011 04891.

The failure to perform a survey to evaluate the radiological conditions is a performance deficiency. The finding is more than minor because it negatively impacted the Occupational Radiation Safety Cornerstone attribute of program and process, in that, the lack of a survey did not ensure exposure control for workers. Using Inspection 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 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. This finding has a human performance cross cutting aspect associated with the component of decision making because the radiation protection manager and cavity decontamination supervisor did not fully use radiological job plans and controls. Specifically, the radiation protection manager and cavity decontamination supervisor made the decision to power wash the vessel studs without using a written work plan.

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 26, 2012
Identified By: NRC
Item Type: FIN Finding
ALARA Program Failed to Prevent Unintended Doses for Refueling Floor Activities
Inspectors identified a finding of very low safety significance for the failure to follow ALARA planning and control procedures to maintain doses ALARA for refueling floor activities covered under Radiological Work Package 2011 05. Specifically, the licensee failed to follow an ALARA planning and work control procedure by not planning, evaluating, and implementing strategies to minimize dose increases to justify increases in the estimated collective dose. Consequently, there was an overage of 20 person rem of unintended dose, which exceeded the dose estimate by 80 percent. The original dose estimate was 25 person rem and actual dose was 45 person rem. The finding and procedure concerns were documented in the licensee's corrective action program as Condition Reports CR-CNS-2012-02551 and CR-CNS-2012-02652.

The failure to follow the ALARA planning and controls procedure to prevent unplanned and unintended collective doses was a performance deficiency. This finding is greater than minor because it affected the Occupational Radiation Safety Cornerstone attribute of program and process, in that, failure to implement ALARA procedures adequately caused increased collective radiation dose for the job activity to exceed 5 person rem and exceeded the planned dose by more than 50 percent. In addition, this type of issue is addressed in Example 6.j of Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues." Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined that this finding was of very low safety significance because it involved ALARA planning and controls and the licensee's latest rolling three year average does not exceed 240 person rem. This finding has a human performance cross cutting aspect associated with the work control component, because the licensee failed to evaluate the impact of work scope changes on human performance and interdepartmental communication and coordination prior to commencing work activities. Specifically, work groups, Health Physics, and the ALARA Planners did not effectively communicate how work scope changes of the radiation work permits would affect the dose estimate of the radiological work package.

Inspection Report# : 2012003 *(pdf)*

Significance: G Mar 27, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Radiation Work Permit Requirements
The inspectors identified two examples of a non-cited violation of Technical Specification 5.4.1, associated with station personnel's failure to follow radiation work permit requirements. Specifically, on two separate occasions inspectors observed different workers breaching contaminated systems during planned maintenance activities without radiation protection personnel present as specified by the radiation work permit requirements. This issue was entered

into the licensee's corrective action program as Condition Reports CR-CNS-2012-00461, and CR-CNS-2012-00763.

The inspectors determined that the failure of craft personnel to follow radiation work permit requirements when breaching contaminated systems was a performance deficiency. The performance deficiency was determined to be more than minor because if left uncorrected, the continued failure of craft personnel to follow radiation work permit requirements when breaching contaminated systems could become more significant, in that, it could lead to personnel contamination events and unplanned/unexpected dose, and is therefore a finding. The finding was associated with the Occupational Radiation Safety Cornerstone. Using Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspector determined the finding to be of very low safety significance because: (1) it was not associated with as low as 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. This finding had a cross-cutting aspect in the area of human performance associated with the work practices component, because the licensee failed to use conservative assumptions in decision making and adopt requirements 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 when performing work activities that breached contaminated systems.
Inspection Report# : 2012002 *(pdf)*

Public Radiation Safety

Security

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

Miscellaneous

Last modified : February 28, 2013