

## Cooper

### 2Q/2013 Plant Inspection Findings

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## 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 low safety 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*)

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## Mitigating Systems

**Significance:** G Jun 22, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Adequately Assess Risk and Implement Risk Management Actions for Proposed Maintenance**

The inspectors identified two examples of a non-cited violation of

10 CFR 50.65(a)(4), “Requirements for Monitoring the Effectiveness for Maintenance at Nuclear Power Plants,” for the licensee’s failure to adequately assess risk and implement risk management actions associated with maintenance activities affecting outflow paths that had been credited in the internal flooding analysis for a moderate-energy line break in the service water pump room. The licensee’s corrective actions included immediately reevaluating the risk associated with the subject activities, implementing additional risk-management actions, and reconfiguring a drain hose associated with the activity. The licensee entered these deficiencies into their corrective action program for resolution as Condition Reports CR-CNS-2013-03813 and CR-CNS-2013-04347.

The licensee’s failure to adequately assess the risk and implement required risk-management actions for proposed maintenance activities was a performance deficiency. This performance deficiency was more than minor and was therefore a finding because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated objective. Specifically, by failing to evaluate the risk associated with the maintenance activities, the licensee failed implement risk management actions to restrain staged tools, materials, and equipment to prevent blockage of outflow paths that had been credited in the internal-flooding analysis for a moderate-energy line break in the service water pump room. Because these outflow paths help ensure the availability of systems that respond to initiating events to prevent undesirable consequences, blockage of those paths affected that availability, and thereby affected the cornerstone objective. In accordance with Inspection Manual Chapter 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process,” Flowchart 1, “Assessment of Risk Deficit,” the inspectors determined the need to calculate the risk deficit to determine the significance of this issue. A senior reactor analyst performed a bounding detailed risk evaluation which determined that the incremental core damage probability associated with this finding was less than  $1 \times 10^{-6}$ , so the finding has very low safety significance (Green). The finding has a cross-cutting aspect in the area of human performance associated with the work practices component because the licensee personnel failed to define and effectively communicate expectations regarding procedural compliance and to ensure that personnel followed procedures.

Inspection Report# : [2013003](#) (pdf)

**Significance:**  Jun 22, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Follow Operability Procedure**

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 Station Procedure 0.5OPS, “Operations Review of Condition Reports/Operability Determination,” and properly document the basis for operability when a degraded or nonconforming condition was identified. Specifically, the inspectors identified that the licensee failed to consider all relevant information when assessing operability of service water pumps A, B, and D for the design-basis barge impact on the intake structure.

The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2013-03850.

The failure to properly assess and document the basis for operability when a degraded or nonconforming condition was identified was a performance deficiency. This performance deficiency was more than minor and is therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective. Specifically, the licensee's failure to properly document and assess the basis for operability resulted in a condition of unknown operability for a degraded nonconforming system, thereby affecting 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," and determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design and qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time, or two separate safety systems out-of-service for longer than their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee's maintenance rule program. The finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee did not ensure that the proposed action was safe in order to proceed, rather than unsafe in order to disapprove the action.  
Inspection Report# : [2013003](#) (*pdf*)

**Significance:** G Mar 29, 2013

Identified By: NRC

Item Type: VIO Violation

#### **Failure to Maintain Seismic Qualification of Standby Liquid Control System**

The team identified a Green violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to assure that design basis requirements associated with the standby liquid control (SLC) system test tank were correctly translated into procedures. As a result, the licensee failed to maintain the tank empty as required to meet seismic design requirements. 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 05000298/2012002, issued May 10, 2012 (ML12131A674). The licensee entered these issues into its corrective action program for resolution as Condition Report CR-CNS-2013-01962, CR-CNS-2013-02027, and CR-CNS-2013-02328.

The failure to maintain design control of the standby liquid control system was a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the design control attribute of the mitigating systems cornerstone and it adversely affected cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to implement procedures to ensure the SLC test tank remained in a seismically qualified condition resulted in an inability to provide reasonable assurance of operability following a seismic event. Using Inspection Manual Chapter 0609, Appendix A, Exhibit 2, the team determined that the finding was of very low safety significance (Green) because it was a design deficiency that did not result in the loss of

functionality.

This finding had a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to adopt a requirement to demonstrate that a proposed action was safe in order to proceed rather than a requirement to demonstrate it was unsafe in order to disapprove the action (H.1(b)).

Inspection Report# : [2013009](#) (*pdf*)

**Significance:**  Mar 23, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Failure to Maintain Design Control of the High Pressure Coolant Injection System**

The inspectors reviewed a self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” associated with the licensee’s failure to maintain design control of high pressure coolant injection relief valve HPCI-RV-12RV. The licensee entered this issue into their corrective action program as Condition Reports CR-CNS-2013-00474 and CR-CNS-2013-00507.

The failure to maintain design control of high pressure coolant injection system relief valve HPCI-RV-12RV was a performance deficiency. This performance deficiency was more than minor and therefore, a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone. Specifically, the licensee failed to adequately analyze the effects of the change in flow rate of the replacement relief valve, 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 inspectors determined that the finding was 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 their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. This finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.

Inspection Report# : [2013002](#) (*pdf*)

**Significance:**  Mar 23, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Maintain Design Control of the Internal Flooding Analysis**

The inspectors identified a Green 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 medium energy line break, were correctly translated into the plant design. Specifically, the licensee used incorrect assumptions for a time critical operator action, and this resulted in a nonconservative analysis for a moderate energy line break in the 903 feet control building corridor. The licensee entered this deficiency into their corrective action program for resolution as Condition Reports CR-CNS-2013-00579, CR-CNS-2013-00619, and CR-CNS-2013-01553.

The failure to maintain design control with respect to the internal flooding analysis was a performance deficiency. This performance deficiency was more than minor, and therefore a finding, because it was associated with the design control attribute of the Mitigating Systems Cornerstone. Specifically, the licensee’s failure to use correct assumptions for time-critical operator actions resulted in a nonconservative analysis for a moderate energy line break in the 903-

foot control building corridor, 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 inspectors determined that the finding was 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 their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate problems such that the resolutions address the causes.

Inspection Report# : [2013002](#) (*pdf*)

**Significance:** G Mar 23, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Follow Operability Procedure**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” associated with the licensee’s failure to follow Station Procedure 0.5OPS, “Operations Review of Condition Reports/Operability Determination,” and properly document the basis for operability when a degraded or nonconforming condition was identified. Specifically, operators removed caution tags for the cross-connect valves of the diesel generator 1 air start receivers when the tags were required to support compensatory actions for a degraded condition. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2013-00386.

The failure to properly assess and document the basis for operability when a degraded or nonconforming condition had been identified was a performance deficiency. This performance deficiency was more than minor, and therefore, a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone. Specifically, the licensee’s failure to properly document and assess the basis for operability resulted in a condition of unknown operability for a degraded nonconforming system, thereby affecting 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,” and determined that the finding was 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 their technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance in accordance with the licensee’s maintenance rule program. The finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee did not ensure that the proposed action was safe in order to proceed, rather than unsafe in order to disapprove the action.

Inspection Report# : [2013002](#) (*pdf*)

**Significance:** G Mar 23, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Provide Adequate Work Instructions**

The inspectors identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, for work instructions associated with the emergency diesel generator 1 voltage regulator cabinet that did not include a step to record the final thickness of shims used to level the voltage regulator cabinet and, as a result, the total shim thickness of the as-built configuration exceeded the allowable value. This finding was entered into the licensee's corrective action program as Condition Report CR-CNS-2013-01769.

The failure to provide work order instructions appropriate to the circumstance for installing the voltage regulator cabinet is 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 Mitigating System Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors determined that the finding was of very low safety significance (Green) because it did not result in the loss of the safety function of any system or train and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The inspectors determined that the finding included a cross-cutting aspect in the area of human performance associated with the work practices component because the licensee did not appropriately plan the work activities to install the anchorage for the voltage regulator cabinet. Specifically, the licensee did not include instructions in the work package to measure and record the total thickness of shimming plates used.

Inspection Report# : [2013002](#) (pdf)

**Significance:** G Mar 21, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Maintain Initial Licensing Examination and Licensed Operator Examination Integrity**

The examiners identified a non-cited violation of 10 CFR Part 55.49, "Integrity of Examinations and Tests," for the failure of the licensee to ensure the integrity of initial licensing exams and licensed operator annual operating tests from 1997 to 2012. During validation activities being conducted supporting the 2012 initial licensing examination, the NRC identified a failure to implement the site's simulator Security Procedure OTP 810, "Operations Department Examination Security (Revision 11)." Additional follow up revealed that there was a portion of the licensee's computer network tied to their simulator that had not been isolated from the simulator during exam activities (initial and requalification examinations) for a period of approximately 15 years. Both provided plant staff the ability to view exam material in an uncontrolled manner. Providing this ability to view exam material in this manner is considered an exam integrity compromise. However, an evaluation involving site access logs, personal interviews with staff, and review of trends in exam results showed that the compromise did not have an actual effect on the equitable and consistent administration of the affected exams. The licensee entered the finding into the corrective action program as Condition Reports CR CNS-2012-06335 and -06336.

The failure of the licensee's training staff to maintain the integrity of examinations administered to initial license applicants and licensed operations personnel was a performance deficiency. The finding was more than minor because it adversely affected the Human Performance attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, the performance deficiency could have become more significant in that allowing licensed operators to return to the control room without valid demonstration of appropriate knowledge on their annual operating tests, or allowing operators to obtain licenses based on a compromised examination, could be a precursor to a more significant event. Using NRC Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 4, Tables 1 and 2 worksheets; and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance (Green). Although the 2012 finding resulted in a compromise of the integrity of initial licensing examinations and annual operating tests for approximately 15 years, with no compensatory actions immediately taken when the compromise should have been discovered, the equitable and consistent administration of the examinations in question

were not actually affected by this compromise. In addition, the failure to meet 10 CFR 55.49 was evaluated through the traditional enforcement process, which resulted in its association with a Severity Level IV violation consistent with Sections 2.2.4 and 6.4.d of the NRC Enforcement Policy. This finding has a cross-cutting aspect in the human performance area associated with the resources component because the licensee failed to ensure that procedures were adequate to assure nuclear safety. Development and maintenance of Procedure OTP 810 had not involved review by the simulator support staff since the procedure's inception. The simulator support staff is responsible for the configuration of computer networks that are connected to the simulator facility.

Inspection Report# : [2012301](#) (*pdf*)

**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-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,” 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:**  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:**  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:**  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 cabinets; 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:**  Sep 26, 2012

Identified By: NRC

Item Type: VIO Violation

### **Failure to Demonstrate that Emergency Diesel Generators can Perform Multiple 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 its 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 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  $1 \times 10^{-6}$ , 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:**  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:**  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*)

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## Barrier Integrity

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## Emergency Preparedness

**Significance:**  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*)

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## Occupational Radiation Safety

**Significance:**  Mar 23, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### Failure to Implement a Radiation Protection Procedure

The inspectors reviewed a self-revealing, non-cited violation of Technical Specification 5.4.1, associated with an operator who entered a high radiation/high-noise area contrary to an ALARA pre-job briefing and without high-noise dosimetry as required by Special Work Permit 2012-051. The licensee entered this issue into their corrective action program as Condition Report CR-CNS-2012-10636.

The failure to follow special radiation work permit requirements when entering a high radiation/high noise area was a performance deficiency. This performance deficiency was more than minor and therefore, a finding, because it was associated with the program and process attribute of the Occupational Radiation Safety cornerstone and affected 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. Specifically, this finding resulted in an operator received an unintended and unexpected radiation dose. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspectors determined that finding was 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 operator incorrectly assumed entry into the overheads in high radiation areas was allowed. 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 ensure that the proposed action is safe in order to proceed, rather than unsafe in order to disapprove the action.

Inspection Report# : [2013002](#) (*pdf*)

**Significance:**  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:**  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:**  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*)

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## Public Radiation Safety

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## 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.

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## Miscellaneous

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