

# River Bend 1

## 4Q/2012 Plant Inspection Findings

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### Initiating Events

**Significance:**  Oct 11, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Establish an Adequate Controlling Procedure for Stroking Safety Relief Valves at Low Power**

The inspectors identified a Green non-cited violation of Technical Specification 5.4.1.a for the failure to develop adequate controls for low-power stroking of safety relief valves. In response to this finding, the licensee trained senior reactor operators on the lessons learned from the finding. The licensee entered the finding into the corrective action program as Condition Report CR-RBS-2012-03816.

The performance deficiency was more than minor because it was associated with the procedure quality attribute of the initiating events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 1, Section B, this finding screened to very low safety significance because it was a transient initiator that did not result in a reactor trip and loss of mitigation equipment. Because the most significant causal factor of the performance deficiency was that the licensee had made an inappropriate assumption that the abnormal operating procedure was a satisfactory controlling document, this finding has a human performance cross cutting aspect associated with the decision making component, in that the licensee failed to use conservative assumptions in decision-making [H.1(b)] (Section 4OA5.3).  
Inspection Report# : [2012010](#) (*pdf*)

**Significance:**  Oct 11, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Implement Effective Corrective Actions for Lockout Relay Failures**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the licensee's failure to identify and correct a condition adverse to quality. Specifically, after a lockout relay mechanically bound in 2011, causing a fire, the licensee failed to identify and correct other susceptible relays. In response, the licensee tested other susceptible relays and replaced those that failed the test. The licensee entered the finding into the corrective action program as Condition Report CR-RBS-2012-05894.

This performance deficiency was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 1, Section B, this finding screened to a detailed risk evaluation because it had caused a reactor trip and the loss of mitigation equipment such as loss of main feedwater and normal service water. The detailed risk evaluation included a quantitative bounding analysis and a qualitative evaluation in accordance with NRC Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria," to determine that this finding was of very low safety significance (Green). Because the most significant causal factor of the performance deficiency was that the licensee had failed to recognize the potential risk to the plant when performing the evaluations for the failed lockout relays, this finding has a human performance cross-cutting aspect associated with the work control component in that licensee did not plan and coordinate work activities by incorporating risk insights, consistent with nuclear safety [H.3(a)] (Section 4OA5.4).  
Inspection Report# : [2012010](#) (*pdf*)

**Significance:**  Oct 11, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Test Lockout Relays in Accordance with Vendor Testing Practices**

The inspectors reviewed a self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, for the licensee's failure to establish adequate preventative maintenance instructions for lockout relays in accordance with vendor recommendations for electrical testing. In response, the licensee incorporated vendor recommendations into the instructions for testing lockout relays. The licensee entered the finding into the corrective action program as Condition Report CR RBS-2011-02209.

The performance deficiency was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations, in that it resulted in a fire. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 1, Section B, this finding screened to very low safety significance (Green) because it was a transient initiator that did not result in a reactor trip or loss of mitigation equipment. The finding did not have a cross-cutting aspect because the performance deficiency was not representative of current plant performance (Section 40A5.5).

Inspection Report# : [2012010](#) (*pdf*)

**Significance:**  Oct 11, 2012

Identified By: NRC

Item Type: FIN Finding

**Failure to Establish An Adequate Cable Reliability Program**

The inspectors reviewed a self-revealing finding for the licensee's failure to establish an effective cable reliability program, in that the licensee failed to distinguish between wetted and dry splices. In response, the licensee tested the high-risk-ranked cables, and replaced those that failed the test. The licensee entered the finding into the corrective action program as Condition Report CR-RBS-2012-03440.

The performance deficiency was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations, in that it resulted in a reactor scram. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 1, Section B, this finding screened to very low safety significance (Green) because it was a transient initiator that did not result in both a reactor trip and loss of mitigation equipment. Because the most significant causal factor of the performance deficiency was that the licensee failed to implement and institutionalize operating experience related to wetted splices, this finding has a problem identification and resolution cross cutting aspect associated with operating experience in that the licensee did not implement and institutionalize operating experience through changes to station processes and procedures to support plant safety [P.2 (b)] (Section 40A5.6).

Inspection Report# : [2012010](#) (*pdf*)

**Significance:**  Sep 28, 2012

Identified By: NRC

Item Type: FIN Finding

**Inadequate Verification of Leading Edge Flow Meter Functionality**

The inspectors identified a finding for the licensee's failure to calibrate the feed water Leading Edge Flow Meter (LEFM) CheckPlus System following maintenance activities. This resulted in an error in reactor feed water flow rate data used to calculate reactor core thermal power. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-06274.

This performance deficiency is more-than-minor and is therefore a finding because it was associated with the procedure quality attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. The performance deficiency challenged the initiating events cornerstone objective by allowing the licensee to operate the plant outside of the prescribed analyzed uncertainty value, used in determining maximum core thermal power. Using NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at Power," the inspectors determined that this finding has very low safety significance (Green) because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined that the apparent cause of this finding was that when the licensee had changed the flow meter maintenance work scope that required transducer replacement, they had not included the vendor verification requirement in the revised work order. Therefore, this finding has a cross-cutting aspect in the Human Performance area of Work Control because the licensee had failed to appropriately coordinate the impact of changes to the work scope or activity on the plant. [H.3(b)].

Inspection Report# : [2012004](#) (*pdf*)

**Significance:**  Jun 29, 2012

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Follow Procedure to Protect Sensitive Plant Areas**

The inspectors identified a finding for failure to follow Operating System Procedure OSP-0048, "Switchyard, Transformer Yard, and Sensitive Equipment Controls." Specifically, the licensee failed to appropriately consider the plant impact when planning and approving work in the main transformer yard and switchyard potentially introducing unacceptable risk to plant operations contrary to OSP-0048 administrative controls. This issue was entered into the licensee's corrective action program as Condition Reports CR-RBS-2012-02479, CR-RBS-2012-02821, and CR-RBS-2012-04129.

The finding was more than minor in accordance with Appendix B, "Issue Screening," of Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," because the finding was associated with the protection against external events attribute of the Initiating Events cornerstone and 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. Specifically, the routine failure to integrate switchyard and transformer yard work into the River Bend work process increased the likelihood that unintended, uncoordinated maintenance and test activities could reduce the diversity of electrical power and cause inadvertent reductions in nuclear plant defense-in-depth. The inspectors performed a Phase 1 significance determination process review of this finding per Inspection Manual Chapter 0609, Attachment 4, "Initial Screening and Characterization of Findings." The finding was determined to be of very low safety significance (Green) since the finding did not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator, nor did it contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, and the finding did not increase the likelihood of a fire or internal or external flooding. The inspectors determined the apparent cause of this finding was a lack of management oversight of station work activities. Therefore, this finding has a cross-cutting aspect in the area of human performance associated with the work practices component because station management failed to provide proper oversight of the process to protect sensitive areas of the plant [H.4(c)].

Inspection Report# : [2012003](#) (*pdf*)

**Significance:**  Jun 29, 2012

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Implement Severe Weather Operations Procedure**

The inspectors identified a finding that involved failure to implement a procedure to protect the plant during adverse weather conditions. Specifically, appropriate equipment walkdowns and corrective actions were not performed to protect equipment important to safety from severe weather risks in a timely manner. The concerns were documented in Condition Report CR-RBS-2012-02387.

The finding was determined to be of very low safety significance (Green) since the finding did not contribute to the

likelihood of a primary or secondary system loss of coolant accident initiator, nor did it contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, and the finding did not increase the likelihood of a fire or internal or external flooding. The inspectors determined the apparent cause of this finding was operation's expectation that excellent housekeeping nominally exists in the switchyard and transformer yard. Therefore, there was no need to dispatch personnel to verify housekeeping because that action would risk personnel safety. The status of an unsecured ladder in the transformer yard is evidence that up to date information is essential to confirm whether housekeeping is satisfactory. Therefore, the finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because the station did not demonstrate that nuclear safety was an overriding priority because it failed to implement the roles and authorities in their severe weather operations procedure [H.1(a)].

Inspection Report# : [2012003](#) (pdf)

**Significance:**  Jun 29, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

**Failure to Properly Assemble Turbine Control Valve Push Rod-Spring Housing Coupling**

The inspectors reviewed a self-revealing finding associated with main turbine control valve number 3 unexpectedly closing. In response, operators reduced reactor power to 90 percent. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-02773.

The finding was more than minor because it was associated with the Initiating Events cornerstone attribute of design control and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability by resulting in a plant downpower and subsequent planned outage for repair activities. The inspectors reviewed the finding using Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." Based on the Phase 1 screening of the finding, the inspectors determined that the finding was of very low safety significance (Green) because it did not affect loss of coolant accident initiators, did not contribute to increasing the likelihood of both an initiating event and affecting mitigating equipment, and did not increase the likelihood of a fire or flood. The inspectors did not identify a cross cutting aspect because the performance deficiency is not indicative of the licensee's current performance.

Inspection Report# : [2012003](#) (pdf)

**Significance:**  Mar 30, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

**Inadequate Relief Valve Configuration Control Results in a Reactor Downpower**

The inspectors identified a self-revealing finding for failing to maintain configuration control of the gland seal header relief valves bonnet vent port. The configuration control failure lead to a subsequent decrease in condenser vacuum requiring an unplanned power reduction to maintain adequate condenser vacuum margin. This finding has been entered into the licensee's corrective action program as Condition Report CR-RBS-2012-00736.

The failure to maintain configuration control of the glad seal header relief valve was a performance deficiency. The finding was determined to be more than minor because it was associated with the configuration control attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. Specifically, the failure to maintain configuration control resulted in an unplanned down power. Using Inspection Manual Chapter IMC 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating systems will not be available. The inspectors determined that the apparent cause of this finding was that when the licensee prepared work orders that directed installation of the gland seal header relief valves, they did not comply with procedural requirements to provide plant configuration controls. Therefore, this finding has a cross-cutting aspect in the human performance area associated with the work practice component because the licensee did not define and effectively communicate expectations regarding procedural compliance [H.4 (b)].

Inspection Report# : [2012002](#) (pdf)

**Significance:** G Mar 30, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

**Failure to Properly Fabricate and Install the mid-Standard Turbine Shaft Brush**

The inspectors reviewed a self-revealing finding regarding the improper fabrication of a turbine shaft grounding brush that resulted in turbine trip and subsequent reactor scram. The licensee identified the improper fabrication of a turbine shaft grounding brush as the cause of a spurious main turbine over-speed trip signal from an electrical discharge from the turbine shaft. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-9053.

Failure to fabricate the turbine shaft grounding brush in accordance with vendor instructions is a performance deficiency. The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and 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. Specifically, the improperly fabricated grounding brush resulted in a turbine trip and subsequent reactor scram. The inspectors reviewed the finding using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." Based on the Phase 1 screening of the finding, the inspectors determined that the finding was of very low safety significance (Green) because it did not affect loss of coolant accident initiators, did not contribute to increasing the likelihood of both an initiating event and affecting mitigating equipment, and did not increase the likelihood of a fire or flood. The apparent cause of the performance deficiency was the failure in 2004 to appropriately perform a post maintenance test for the turbine shaft grounding brush modification. Therefore the inspectors did not identify a cross-cutting aspect because the performance deficiency is not reflective of the licensee's current performance.

Inspection Report# : [2012002](#) (*pdf*)

## Mitigating Systems

**Significance:** G Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Maintain Design Control of the Control Building Chilled Water System**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the failure to maintain temperature control of the safety-related battery rooms. An engineering evaluation to change a procedure to allow gagging open of the control building heating and ventilation system control temperature valves failed to consider the appropriate environmental temperature limits for the rooms. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-07353.

The failure to maintain temperature control of the safety-related battery rooms was a performance deficiency. This performance deficiency is more-than-minor and is therefore a finding because it is associated with the design control attribute of the mitigating systems cornerstone and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, during a loss of offsite power with low seasonal temperatures, the gagged-open temperature control valve would reduce the battery rooms' temperatures below their environmental design temperature and adversely affect the capacity of the safety-related batteries. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 2, Section A.1, this finding screened as very low safety significance (Green) because the finding was 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. The engineering evaluation that changed the proper battery room controls was performed in 1997. Therefore, the finding did not have a cross-cutting aspect because the failed review is not indicative of current licensee performance.

Inspection Report# : [2012005](#) (*pdf*)

**Significance:** G Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Procedures for Lubrication of the Standby Liquid Control Pump Motor Bearings**

The inspectors identified a non-cited violation of Technical Specification 5.4.1.a for not establishing appropriate lubrication procedures for the standby liquid control pump motor bearings. Specifically, the station incorrectly used the Electrical Power Research Institute (EPRI) guidance for maintenance procedure by adding twice the amount of grease required. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-05573.

The failure to establish appropriate lubrication procedures is a performance deficiency. This performance deficiency is more-than-minor and is therefore a finding because if left uncorrected, it has the potential to lead to a more significant safety concern. Specifically, if the work instructions were not corrected, future work activities that grease the motor bearings in accordance with those work orders would over-grease the bearings, which may result in common-cause failures of standby motors. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 2, Section A.1, this finding screened as very low safety significance (Green). Specifically, the finding is a deficiency that affected the qualification of the standby liquid control pump motors; however, the systems maintained their operability. Because the most significant causal factor of the performance deficiency was station personnel and management failing to fully evaluate the previously identified inadequate lubrication of motors, this finding has a problem identification and resolution cross-cutting aspect associated with the corrective action program component [P.1(c)].

Inspection Report# : [2012005](#) (*pdf*)

**Significance:** G Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Follow Procedure for Lifting Leads Results in Inoperability of Standby Service Water Fan**

The inspectors reviewed a self-revealing, non-cited violation of Technical Specification 5.4.1.a due to a failure to follow work order instructions. Specifically, station personnel failed to follow the requirements of Procedure GMP-0042, "Lifted Leads and Jumpers," Revision 13 when removing and reinstalling a time-delay relay for a standby service water cooling fan. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-06325.

The failure to follow work order instructions is a performance deficiency. This performance deficiency is more-than-minor because it is associated with the equipment reliability attribute of the mitigating systems cornerstone to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to ensure the correct wiring to the standby service water fan time-delay relay resulted in the inability of the fan to be started locally, which is required for remote shutdown of the plant. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 2, Section A, question 3, this finding required a detailed risk evaluation because the finding represented an actual loss of function of at least a single train for greater than the technical specification allowed outage time. The risk of the condition was evaluated by a senior reactor analyst. The sequence that would result in a risk increase is control room abandonment with concurrent maintenance being performed on the alternate bank of 5 fans. This would leave only 4 functional fans in one division of standby service water, whereas 5 fans are needed per design to meet the safety function.

The frequency of control room abandonment is approximately  $5E-5$ /yr and the frequency of maintenance performed on one bank of standby service water fans is approximately  $1E-2$ . Therefore, the frequency of a scenario where the failure of one fan to operate from the alternate shutdown panel would cause a measurable effect on risk is approximately  $5E-7$ /yr. The other division of standby service water fans was unaffected by this condition. Accordingly, the significance of the performance deficiency was determined to be very low (Green). This finding has a human performance cross-cutting aspect associated with the work practices component in that the electricians failed

to use adequate human error prevention techniques [H.4(a)].

Inspection Report# : [2012005](#) (pdf)

**Significance:**  Oct 11, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Correct Spurious Isolations of Reactor Core Isolation Cooling System**

The inspectors reviewed a self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to identify and correct an inadequate design of the reactor core isolation cooling (RCIC) system that resulted in spurious system isolations during main turbine trips. In response, the licensee installed a time delay into the circuit that had tripped the RCIC steam supply before the RCIC received a start signal. The licensee entered the finding into the corrective action program as Condition Report CR-RBS-2012-03439.

The performance deficiency was more than minor because it was associated with the design control attribute of the mitigating systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, in that the repeated spurious isolations adversely affected the RCIC system reliability. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, “Initial Characterization of Findings,” and NRC Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings At Power,” Exhibit 2, this finding screened to a detailed risk evaluation which determined that the finding was of very low safety significance (Green). This finding does not have a cross-cutting aspect because the apparent cause of this finding was the licensee’s decision in 2008 to not add a time delay to the high differential pressure trip, and the NRC does not consider that cause to be representative of current licensee performance (Section 40A5.2.a).

Inspection Report# : [2012010](#) (pdf)

**Significance:**  Oct 11, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Declare Reactor Core Isolation Cooling System Inoperable**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the licensee’s failure to declare the RCIC system inoperable when the system was unreliable for an automatic start following a main turbine trip. The licensee addressed the underlying safety concern by installing a time delay into the circuit that had tripped the RCIC steam supply before RCIC received a start signal. The licensee entered the finding into the corrective action program as Condition Report CR-RBS-2012-06015.

The performance deficiency was more than minor because it affected the equipment performance attribute of the mitigating systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, “Initial Characterization of Findings,” and NRC Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings At Power,” Exhibit 2, this finding screened to a detailed risk evaluation which determined that the finding was of very low safety significance (Green). Because the most significant causal factor of the performance deficiency was that the organization had used the absence of information to determine RCIC operability, this finding has a cross-cutting aspect in the human performance area associated with the decision-making component, because the licensee had failed to demonstrate that the proposed action was safe in order to proceed rather than a requirement to demonstrate that it was unsafe in order to disapprove the action [H.1(b)] (Section 40A5.2.b).

Inspection Report# : [2012010](#) (pdf)

**Significance:**  Oct 11, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Prevent Conflicts of Duty for Fire Brigade Members**

The inspectors reviewed a self-revealing, non-cited violation of License Condition 2.C.(10) because the licensee failed to prevent conflict of duties for fire brigade members, which affected the timely response to fires. In response, the control room initiated a night order to ensure that when a fire brigade member is called for fitness-for-duty testing, the staff will either designate a relief fire brigade member or arrange a deferral of the fitness-for-duty testing. The licensee plans to address long-term corrective actions through appropriate procedure changes at the fleet level. The licensee entered the finding into the corrective action program as Condition Report CR RBS-2012-03817.

The performance deficiency was more than minor because it was associated with the protection against external events 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, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 2, this finding screened to very low safety significance (Green) because the affected fire brigade member was unavailable for less than two hours. Because the most significant causal factor of the performance deficiency was that the licensee failed to ensure that conflicts between the fitness-for-duty and fire brigade procedures had been properly resolved prior to implementation, this finding has a human performance cross cutting aspect associated with resources because the licensee did not ensure that procedures were complete and accurate to assure nuclear safety [H.2(c)] (Section 40A5.8).

Inspection Report# : [2012010](#) (*pdf*)

**Significance:** G Sep 28, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Untimely Corrective Actions to Ensure Reliability of the 480 VAC Molded Case Circuit Breakers and Unitized Motor Starters**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to correct within a reasonable period conditions adverse to quality associated with testing safety-related molded-case circuit breaker and unitized motor starter circuit breakers. The licensee's immediate corrective actions included increasing the rate of breaker preventive maintenance and testing to reduce the long-standing risk-significant breaker backlog. The station documented the finding in Condition Report CR-RBS-2012-06364.

The performance deficiency was more-than-minor and is therefore a finding because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of the safety-related molded-cased circuit breakers to respond to initiating events to prevent undesirable consequences. Specifically, failures of the affected breakers represent an increase in risk to safe plant operations, because to isolate a fault caused by a defective 480VAC breaker, the upstream feeder breaker would trip, thus causing a loss of power to additional safety-related components. Using Inspection Manual Chapter 0609, Appendix A, the finding is associated with the loss of mitigation equipment (Service Water pumps A and C), and so screened to a detailed risk evaluation. That evaluation determined that the incremental conditional core damage probability (ICCDP) was 2.1E-8 for a fire in one of the standby cooling tower electrical rooms, resulting in a loss of one train of service water pumps (A and C, or B and D), as a consequence of the failure of the proximate 480 VAC breaker to open. The risk was low because normal service water would be unaffected by the fire, and it would be unlikely that offsite power would be lost concurrently. The fire could also affect control room ventilation, but the analyst qualitatively concluded that this would not add more than negligibly to the overall risk. Consequently, the finding has very low safety significance (Green). The inspectors determined that the apparent cause of the finding was a combination of two factors related to resources: station management did not ensure that each work group completed its actions to support timely resolution, and personnel vacancies from key positions hampered completion of the breaker testing program. The inspectors therefore determined the finding had a cross-cutting aspect in the human performance area associated with the resources component because station management did not ensure personnel resources were available to minimize long-standing equipment issues. [H.2(a)].

Inspection Report# : [2012004](#) (*pdf*)

**Significance:** G Sep 28, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Appropriately Tune the Reactor Core Isolation Cooling Turbine Speed Controller**

The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with inadequate instructions for tuning the reactor core isolation cooling (RCIC) turbine speed governor. The licensee's immediate corrective actions included revising the maintenance procedure and recalibrating the RCIC turbine speed controller. The station documented the finding in Condition Reports CR-RBS-2012-01750 and CR-RBS-2012-01904.

This performance deficiency is more-than-minor and is therefore finding because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, during operation, this performance deficiency resulted in improper tuning of the turbine speed control system, which caused the turbine exhaust check valve to repeatedly slam against its open and shut valve stops and abnormally large turbine governor valve oscillations. Because the licensee had not tuned the turbine speed control system to run at a steady speed, the licensee removed RCIC from service to properly calibrate the control system, thereby adversely affecting RCIC availability. Using NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the inspectors determined that the issue affected the Mitigating Systems Cornerstone. Using NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at Power," the inspectors determined that the issue had very low safety significance (Green) because the finding was not a deficiency affecting the design or qualification; did not represent a loss of system and/or function, did not represent either an actual loss of function of at least a single train for greater than its Technical Specification Allowed Outage Time, or two separate safety systems out-of-service for greater than its Technical Specification Allowed Outage Time; and did not represent an actual loss of function of one or more non-Technical Specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours. The inspectors determined the apparent cause of this finding was the licensee's failure to incorporate industry and vendor operating experience into the work instructions on February 12, 2011, to correct RCIC governor valve oscillations. Therefore, this finding has a cross-cutting aspect in the area of problem identification and resolution associated with the operating experience component because the licensee did not implement and institutionalize industry knowledge, including vendor recommendations, to support plant safety [P.2 (b)].

Inspection Report# : [2012004](#) (pdf)**Significance:**  Jun 29, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**High Pressure Core Spray Diesel Generator Bearing Lubrication Deficiencies**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, for failing to correct a condition adverse to quality for lubricating the high pressure core spray diesel generator bearings. The station documented the finding in Condition Report CR-RBS-2012-02666.

This performance deficiency was more than minor and was a finding because, if left uncorrected, inadequate lubrication work instruction could cause bearing failure due to inadequate lubrication or generator winding failure due to grease intrusion into the electrical windings in the generator. The significance of this finding was evaluated using a Phase 1 significance determination process screening and was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency; did not represent a loss of system safety function; and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The apparent reason the initial condition report was closed without correcting the work instruction to lubricate the high pressure core spray diesel generator bearings was that personnel who prepared and approved the operability evaluation were focused on proving operability not correcting a condition adverse to quality. Their focus was specific to the component's ability to perform its function and not on completely identifying the issue in the corrective action program. Therefore, the finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the station did not identify this issue completely, accurately, and in a timely manner commensurate with its safety significance [P.1(a)].

Inspection Report# : [2012003](#) (pdf)

**Significance:** **G** Jun 29, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Specify Manual Actions for Safety Relief Valve Operations During a Station Blackout Event**

The inspectors identified a non-cited violation of 10 CFR 50.63, "Loss of All Alternating Current," paragraph (a) (2), which states, in part, "The reactor core and associated coolant, control, and protection systems, including station batteries and any other necessary support systems, must provide sufficient capacity and capability to ensure that the core is cooled and appropriate containment integrity is maintained in the event of a station blackout for the specified duration. The capability for coping with a station blackout of specified duration shall be determined by an appropriate coping analysis. Licensees are expected to have the baseline assumptions, analyses, and related information used in their coping evaluations available for NRC review." Specifically, from November 1985 to May 17, 2012, the licensee failed to specify actions while ac power is unavailable to ensure that safety relief valves provided sufficient capacity and capability to ensure appropriate containment integrity is maintained during a station blackout event. This violation has been entered into the corrective action program as Condition Report CR-RBS-2012-03376.

The inspectors determined that failure to specify actions for safety relief valve operation in procedures in accordance with NUMARC-8700 was a performance deficiency. The finding was more than minor because it adversely affected the procedure quality attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to respond to undesirable consequences. Specifically, the station blackout coping procedures did not specify actions that would ensure the heat capacity temperature limit for the suppression pool would not be exceeded during the station blackout coping period. Using Phase 1 of Inspection Manual Chapter 0609, "Significance Determination Process," the inspectors determined that the Mitigating Systems Cornerstone was affected because the finding could cause degradation of core decay heat removal. Using Table 4a from the Phase 1 worksheet, the inspectors determined that the finding represents a loss of safety function; therefore, a Phase 2 analysis was necessary. However, the inspectors determined that a Phase 2 analysis was not sufficient to assess significance because of the complexity of the finding. Therefore, a Phase 3 analysis was necessary. The result of the Phase 3 analysis determined that the change in core-damage-frequency (?CDF) for the performance deficiency was  $2.4E-7$  or very low safety significance (Green). The senior reactor analyst determined that the change in large-early-release-frequency (?LERF) was  $4.8E-8$  or very low safety significance (Green). No cross-cutting aspect was identified because the most significant contributor was not indicative of current licensee performance (Section 40A5).  
Inspection Report# : [2012003](#) (*pdf*)

**Significance:** **G** Mar 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Appropriately Assess and Manage Risk for Internal Flooding Events**

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," due to the failure of work control and operations personnel to adequately assess the increase in risk associated with internal flooding events. This issue has been entered into the licensee's corrective action program as Condition Reports CR-RBS-2012-00641.

The failure of work control and operations personnel to adequately assess the risk associated with internal flooding is a performance deficiency. The performance deficiency resulted in the overall elevated plant risk placing the plant into the higher licensee-established risk category ('Green' to 'Yellow'). The performance deficiency is more than minor, because it is associated with the configuration control attribute of the Mitigating Systems Cornerstone and affects the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," Flowcharts 1 and 2, the finding was determined to have very low safety significance (Green) because the incremental core damage probability deficit was less than  $1E-6$  and the incremental large early release probability deficit was less than  $1E-7$ . The inspectors determined that the apparent cause of the finding was that station personnel routinely failed to review the qualitative risk checklist required by the station's risk management procedure. Therefore, this finding has a cross-cutting aspect in the human performance area associated with the work practice component because the licensee did not define and effectively communicate expectations regarding procedural compliance. [H.4(b)].

**Significance:** G Mar 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Verify Assumptions used in Standby Equipment Room Temperature Analysis**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because, prior to February 7, 2012, the licensee did not verify that assumptions used in confirming that the safety-related battery inverter rooms would remain below their design basis temperature limits during a design basis event agreed with the as-built condition of the plant. This finding was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-01046.

The inspectors determined that the failure to verify that design documents match the actual configuration of the plant is a performance deficiency. The finding was more than minor because it adversely affects the Mitigating Systems Cornerstone objective of equipment performance to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the licensee had not verified assumptions that ensure the standby switchgear room air conditioning system would reliably maintain the standby equipment rooms below the design temperature limits. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because it did not represent a loss of system safety function, nor actual loss of safety function of a single train, and it did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors determined that this issue has a cross-cutting aspect in the area of human performance decision-making regarding nonconservative assumptions. When the licensee conducted the flow balance test, they assumed that measuring air inflow alone was sufficient, but did not check that the doors' gaps were allowing a sufficient amount of warm air to exit standby equipment rooms and be circulated back to the general areas [H.1(b)].

Inspection Report# : [2012002](#) (pdf)**Significance:** G Mar 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Appropriately Set Reactor Core Isolation Cooling Flow Controller High Output Limit**

The inspectors identified a self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Procedures," when the reactor core isolation cooling turbine tripped on mechanical over speed. Troubleshooting determined the cause was an improperly tuned flow controller. This issue has been entered into the licensee's corrective action program as Condition Reports CR-RBS-2012-01188 and CR-RBS-2012-01262.

The failure to provide specific flow controller tuning instructions for the reactor core isolation cooling turbine flow controller was a performance deficiency. The finding was more than minor in accordance with Appendix B, "Issue Screening," of Inspection Manual Chapter IMC 0612, "Power Reactor Inspection Reports," because the finding was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, improper tuning of the reactor core isolation cooling controller impacted operability and availability of the reactor core isolation cooling system. The inspectors performed a Phase 1 significance determination process review of this finding per Inspection Manual Chapter IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings." In accordance with Table 4a, "Characterization Worksheet for IE, MS, and BI Cornerstones," the finding represented a loss of system safety function. Therefore, a Region IV senior reactor analyst used Inspection Manual Chapter IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," to review the finding using the Standardized Plant Analysis Risk (SPAR) model for River Bend Station. The Phase 3 analysis determined the Delta-CDF was 4.68E-7/yr. For a 7-month exposure, the incremental conditional core damage probability is 2.73E-7. The majority of the risk came from sequences involving a loss of feedwater (48 percent) and a loss of offsite power (33 percent). Consequently, the analyst determined that the risk associated with the performance deficiency was very low (green). The inspectors determined the apparent cause of this finding was the failure to perform a post maintenance test to identify that the high output limit was not properly set by the maintenance work instruction. Therefore, this finding has cross-cutting

aspect in the area of human performance associated with the resources component due to less than adequate work package testing instruction. [H.2(c)].  
Inspection Report# : [2012002](#) (*pdf*)

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## Barrier Integrity

**Significance:**  Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Implement Effective Corrective Actions for Defects in MasterPact Breakers**

The inspectors reviewed a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to promptly correct a condition adverse to quality. Specifically, station personnel failed to implement repairs to the mechanism-operated contact linkages for safety-related breakers, ultimately resulting in the failure of standby gas treatment filtration train 1B to start on demand. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2012-005894.

The failure to correct a condition adverse to quality is a performance deficiency. This performance deficiency is more-than-minor because it is associated with the systems, structures, and components and barrier performance attributes of the barrier integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the standby gas treatment exhaust filter train failed to start during a surveillance test because of a nonconforming mechanical linkage in the feeder breaker resulting in unavailability for standby gas train 1B. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 3, Section C, question 1, the finding screened as very low safety significance (Green), because the finding represented only a degradation of the radiological barrier function provided by the standby gas treatment system. No cross-cutting aspect was assigned to this finding because the NRC concluded the finding did not reflect current licensee performance.

Inspection Report# : [2012005](#) (*pdf*)

**Significance:**  Sep 28, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Improper Hydrogen Igniter Breaker Trip Coil Setting**

The inspectors reviewed a self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to correctly translate the design bases for the power supply for the hydrogen igniter system into procedures used to set the associated power system supply breaker trip coil. The licensee's immediate corrective actions included evaluating the proper trip coil setting and adjusting the trip coil accordingly. The station documented the finding in Condition Report CR-RBS-2012-02623.

This performance deficiency is more-than-minor and is therefore a finding because it is associated with the design control attribute of the Barrier Integrity Cornerstone and adversely affected the cornerstone's objective to ensure that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, this performance deficiency resulted in an incorrect trip coil setting, which decreased the reliability of the hydrogen igniters, which burn hydrogen in a controlled manner to prevent containment damage. Using Inspection Manual Chapter 0609.04, "Initial Characterization of Findings," the finding required a significance evaluation per Inspection Manual Chapter 0609, Appendix H, "Containment Integrity Significance Determination Process," because the unavailable Division 1 hydrogen igniters represented a degraded condition affecting containment barrier integrity that can potentially increase large early release frequency (LERF) without affecting the core damage frequency (CDF). Inspectors determined that this was a type B finding. Using section 6.0, the inspectors determined that the finding was of very low safety significance (Green) because the hydrogen igniters are arranged in two independent divisions such that each containment region has two igniters, one

from each division, controlled and powered redundantly so that ignition would occur in each region even if one division failed to energize. The inspectors determined that the apparent cause of this finding was that in response to earlier failures of the trip coil, the licensee had not investigated the problem thoroughly enough to identify and correct this performance deficiency. However, because the earlier failures had all occurred more than seven years ago, the inspectors determined that this cause did not reflect present licensee performance, so the inspectors did not assign a cross-cutting aspect to it.

Inspection Report# : [2012004](#) (*pdf*)

**Significance:**  Mar 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Inadequate Maintenance Instructions used for Suppression Pool Cooling Isolation Valve Maintenance**

The inspectors identified a Green, self-revealing non-cited violation of Technical Specification 5.4.1.a, "Procedures," for inadequate maintenance procedures to properly assemble containment isolation valves on the suppression pool cooling system. This resulted in a failure of the suppression pool cooling system's outboard containment isolation valve marriage coupling that ensures the valve stem is connected to the valve actuator. This issue has been entered into the licensee's corrective action program as Condition Reports CR-RBS-2011-09171.

The failure to establish adequate work instructions to assemble the suppression pool cleanup system isolation valves is a performance deficiency. The inspectors determined that the finding was more than minor because it is associated with the Barrier Integrity Cornerstone attribute of Systems, Structures, and Components and Barrier Performance, and affected the cornerstone objective of providing reasonable assurance that the physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At-Power Situations." Using the Phase 1 SDP worksheet for the barrier integrity cornerstone, the inspectors answered "no" to all four screening questions under the containment barrier column. Specifically, the affected penetration did not represent an actual open pathway in the physical integrity of reactor containment due to an operable and functionally redundant containment isolation valve in the suppression pool cooling piping penetration. The apparent cause of the finding was the failure of the planning department to recognize and develop design documentation to identify the set screw size and starting material necessary to determine the appropriate set screw torque for work affecting safety related equipment. The inspectors determined the finding had a cross cutting aspect in the human performance, area associated with the resources component because of the lack of complete accurate and up to date design documentation associated with the work package development. [H.2(c)].

Inspection Report# : [2012002](#) (*pdf*)

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:**  Mar 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Perform a Radiation Survey**

Inspectors reviewed a self-revealing non-cited violation of 10 CFR 20.1501(a) for the failure to perform a radiation survey. A survey was not completed after two contaminated valves were transferred from the 98-foot elevation of the main steam tunnel to the radwaste area. During shift turnovers, workers responsible for transferring the valves did not understand that they needed to remove two buckets, and perform a survey after completing the valve transfer. Consequently, a bucket with highly contaminated water and residual was left in the tunnel causing radiation levels as high as 300 millirem per hour. This resulted in an unposted high radiation area. The licensee entered the issue into the

corrective actions program as Condition Report CR-RBS-2011-01552.

The failure to perform a radiation 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's attribute of program and process, in that the lack of a post-work survey did not ensure exposure control for workers. Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the finding was determined to be of very low safety significance because: (1) it was not associated with ALARA planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and the ability to assess dose was not compromised. The finding has a Human Performance cross-cutting component associated with the aspect of work practices because expectations regarding procedural compliance for post-job radiation surveys were ineffective [H.4(b)].

Inspection Report# : [2012002](#) (*pdf*)

**Significance:**  Mar 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Failure to Control Access to a High Radiation Area**

Inspectors reviewed a self-revealing non-cited violation of Technical Specification 5.7.1(c), resulting from the licensee's failure to control access to a high radiation area. Specifically, a carpenter entered a high radiation area in the main steam tunnel near valve V112 without proper authorization before a health physics technician completed radiation surveys and received an unexpected alarming dosimeter reading of 110 millirem per hour. The carpenter had not been briefed that dose rates in the area measured 140 millirem per hour. He had been instructed not to perform any work before the health physics technician surveyed the area, but River Bend did not make it clear enough that he was to follow all health physics instructions. The licensee entered the issue into the corrective actions program as Condition Report CR-RBS-2011-01426 and the worker was counseled.

The failure to control access to a high radiation area was a performance deficiency. The finding was more than minor because it was associated with the occupational radiation safety attribute of exposure control and affected the cornerstone objective in that not controlling a high radiation area could increase personal exposure. In addition, this type of issue is addressed in Example 6.h of IMC 0612, Appendix E, "Examples of Minor Issues." Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspector determined that the finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The finding has a Human Performance cross-cutting component associated with the aspect of work practices because expectations regarding supervisory and management oversight of work activities, including contractors to ensure that safety is supported were not met [H.4(c)].

Inspection Report# : [2012002](#) (*pdf*)

## **Public Radiation Safety**

**Significance:**  Mar 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Adequately Monitor the Performance of the Digital Radiation Monitoring System**

The inspectors identified a non-cited violation of 10 CFR 50.65(a)(2) involving the failure to adequately monitor the performance of the digital radiation monitoring system. Specifically, the maintenance rule expert panel performed an inadequate analysis after the digital radiation monitoring system exceeded the condition monitoring criteria by failing to follow the procedural requirements of EN-DC-206 to have cause evaluations for system failures so that maintenance preventability could be properly evaluated. This issue has been entered into the licensee's corrective action program as Condition Reports CR-RBS-2011-00485.

The inspectors determined that the failure to adequately monitor the performance of the digital radiation monitoring

system is a performance deficiency. The inspectors reviewed Inspection Manual Chapter (IMC) 0612 and determined that the finding is more than minor because the finding is associated with the plant facilities/equipment and instrumentation attribute (reliability of process radiation monitors) of the radiation safety cornerstone (public radiation safety) and adversely affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian use. The finding was assessed using the IMC 0609, Appendix D, Public Radiation SDP, and because there was no failure to implement the effluent program, the finding was determined to be of very low safety significance (Green). The inspectors reviewed the apparent cause of this finding and found that the oversight of the maintenance rule program was adversely affected by personnel changes and lack of effective turnover. Therefore, the finding has a cross-cutting aspect in the human performance area and resources component because the licensee failed to ensure that maintenance rule program personnel were trained and sufficiently qualified to perform their duties in an effective manner [H.2(b)].  
Inspection Report# : [2012002](#) (*pdf*)

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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

**Significance:**  Oct 11, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Loss of Onsite Safety Review Committee Independence**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, for several examples of failures to follow Procedure EN OM 119, "Onsite Safety Review Committee," Revision 8, which indicated that the onsite safety review committee failed to accomplish an independent review of station activities in accordance with the procedure. In response to this finding, the licensee developed a process to document the committee findings and reinforced roles and responsibilities for committee conduct, and committee members reviewed the implementing procedure. The licensee entered this finding into the corrective action program as Condition Report CR-RBS-2012-03739.

The multiple failures to follow the onsite safety review committee implementing procedure were performance deficiencies that were more-than-minor because failure to correct these performance deficiencies could compromise the nuclear safety oversight function of the committee, which could result in inappropriate decision-making on activities important to nuclear safety. In accordance with NRC Inspection Manual Chapter 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," the finding was of very low safety significance because the performance deficiency did not result in any risk-significant issues. Because the most significant causal factor of the performance deficiency was the licensee's failure to properly define, communicate and implement the roles for decision-making that affected nuclear safety, this finding has a human performance cross-cutting aspect associated with decision-making because the licensee failed to adequately communicate the authority and roles of the onsite safety review committee to the members [H.1(a)] (Section 40A5.7).

Inspection Report# : [2012010](#) (*pdf*)

Last modified : February 28, 2013