

# Columbia Generating Station

## 3Q/2011 Plant Inspection Findings

---

### Initiating Events

**Significance:**  Jun 25, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Loss of Reactor Coolant System Inventory during Reactor Pressure Vessel Flood-up**

Green. The inspectors identified a noncited violation of Technical Specification 5.4.1.a for the licensee's failure to provide procedures appropriate to the circumstances to perform flood-up. Specifically, operators inadvertently drained 4000 gallons water from the reactor pressure vessel during reactor cavity fill operations using Plant Procedure Manual SOP-CAVITY-FILL, "Reactor Cavity and Dryer Separator Pit Fill," Revision 14, because of inadequate procedure guidance. This issue was placed in the licensee's corrective action program as Action Request 237779 and Action Request 238032.

The performance deficiency was more than minor because it affected the procedure quality attribute of the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. The inspectors used Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations - Significance Determination Process" to evaluate the significance of the finding. The finding did not require a quantitative assessment because adequate mitigating equipment remained available and because the event did not result in a loss of more than 2 feet of inventory. Therefore, the finding screened as green. The inspectors determined that this finding did not have a cross cutting aspect because the inadequate corrective actions from a similar event that would have prevented recurrence occurred greater than two years previously; and thus, was not representative of current licensee performance. (Section 1R20).

Inspection Report# : [2011003](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Risk Assessment During Lifting Activities**

Green. The inspectors identified a noncited violation of 10 CFR 50.65(a)(4) for the licensee's failure to perform a risk assessment during lifting activities in the circulating water pump house. Specifically, licensee personnel failed to assess the increase in risk during movement of a circulating water pump motor over operating equipment. Licensee personnel performed a risk assessment and determined the correct risk profile for the movement of the circulating water pump motor. This issue was placed in the licensee's corrective action program as Action Request/Condition Report 228710.

The performance deficiency was more than minor because it involved a failure to assess risk during a maintenance activity. The performance deficiency affected the equipment performance attribute of the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability. The inspectors evaluated the performance deficiency using Inspection Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," and determined the performance deficiency to be of very low safety significance because the risk deficit during the time the motor was being moved was less than 1.0E-6. The inspectors determined the violation had a cross-cutting aspect in the area of human performance, resources component, for the failure to provide up to date procedures in the work order planning process that would incorporate risk insights during lifting operations around operating plant equipment [H.2.c] (Section 1R13).

Inspection Report# : [2010005](#) (*pdf*)

---

# Mitigating Systems

**Significance:**  Sep 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## **Failure to Comply with Seismic Storage Requirements Procedure**

Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to accomplish activities affecting quality. From July 13, 2011, to July 19, 2011, the licensee failed to accomplish the storage of transient equipment in accordance with the seismic storage requirements in Procedure PPM 10.2.53, “Seismic Requirements for Scaffolding, Ladders, Man-Lifts, Tool Gang Boxes, Hoists, Metal Storage Cabinets, and Temporary Shielding Racks,” Revision 37. Specifically, a wheeled toolbox and lifting beam were stored in a location, near safety-related emergency diesel generator DG-1 conduits and service water pump SW-P-1A conduits, that did not meet the seismic overturning and sliding requirements. This condition was entered into the licensee’s corrective action program as Action Request 244730.

The inspectors determined that the failure to meet the seismic storage requirements of Procedure PPM 10.2.53 was a performance deficiency. 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 Mitigating System Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding affected the safety of the reactor during a refueling outage and entry conditions for residual heat removal were initiated, the inspectors used NRC Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” to evaluate the significance of the finding. The finding did not require a quantitative risk assessment because adequate mitigating equipment remained available and the finding did not constitute a loss of control, as defined in Appendix G. Therefore, the finding screened as having very low safety significance, or Green. The inspectors determined that the finding had a cross-cutting aspect in the area of human performance and work practices component, because the licensee failed to ensure personnel practices supported human performance. Specifically, the licensee failed to ensure supervisory and management oversight of work activities such that nuclear safety was supported [H.4.c] (Section 1R17).  
Inspection Report# : [2011004](#) (*pdf*)

**Significance:**  Sep 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## **Failure to Maintain Adequate Reactor Core Isolation Cooling Surveillance Procedure**

Green. The inspectors identified a noncited violation of Technical Specification 5.4.1.a for the failure of the licensee to maintain an adequate reactor core isolation cooling pump surveillance procedure. Specifically, Procedure OSP-RCIC/IST-B501, “RCIC LSFT Surveillance,” Revision 9, required that the licensee maintain bearing oil level in the green band during turbine operation per Procedure PPM 3.1.10, “Operating Data and Logs”, Revision 76. The inspectors found that the licensee staff did not have a common understanding of the requirement to maintain turbine oil level and that Procedure PPM 3.1.10 only provided guidance for bearing oil levels while the reactor core isolation cooling turbine was in a standby condition, not while the equipment was operating. Consequently, when the surveillance was performed, the inspectors noted that the turbine west end bearing oil level had decreased through the yellow band into the red band of the attached sight glass and was allowed to run for approximately 36 minutes after the control room was informed of the low bearing oil level. This condition was entered into the licensee’s corrective action program as Action Request 248813.

The finding was more than minor because it 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 prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the inspectors determined this finding to be of very low safety significance (Green) because it did not result in the loss of a system safety function, did not represent the loss of safety function of a single train for greater than its allowed outage time, did not result in the loss of safety function of any non-technical specification equipment, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The inspectors determined that this finding had a cross-cutting aspect in the area of human

performance associated with the decision making component because the licensee failed to verify the validity of underlying assumptions associated with the precaution listed in Procedure OSP-RCIC/IST-B501 [H.1(b)] (Section 1R04).

Inspection Report# : [2011004](#) (pdf)

**Significance:**  Sep 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Test Emergency Diesel Generator Critical Trips**

Green. The inspectors identified a noncited violation of Technical Specification 3.8.1, “AC Sources – Operating,” for the licensee’s failure to meet testing requirements of Surveillance Requirement 3.8.1.13. Specifically, the inspectors determined the licensee had not performed tests to determine if the critical trips associated with the emergency diesel generators would perform their required function. Following identification of the issue by the inspectors, the licensee personnel revised the surveillance testing procedures associated with the emergency diesel generators. Critical trips for all three emergency diesel generators tested successfully. This issue was placed in the licensee's corrective action program as Action Request 244898.

The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. The inspectors determined the at-power significance determination process was to be used since this performance deficiency affected at-power operations only. Using Inspection Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the inspectors determined the performance deficiency was of very low safety significance (Green) because it was a qualification deficiency confirmed not to result in a loss of operability since all three diesel generators tested successfully. The inspectors determined a cross-cutting aspect was not applicable to this finding because the decision to not test the non emergency trips was made early in plant operation and therefore not reflective of current plant performance (Section 1R15).

Inspection Report# : [2011004](#) (pdf)

**Significance:**  Sep 16, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Promptly Identify and Correct Degraded Flood Barriers**

Green. The team identified a Green noncited violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” because Energy Northwest failed to promptly identify and correct degraded flood barrier floor coatings, which protected the Division 2 safety-related electrical switchgear room, remote shutdown room, and main control room from water intrusion. In 2002, flooding above the Division 2 electrical switchgear and remote shutdown rooms resulted in water intrusion into these rooms. The corrective action to prevent recurrence was to apply epoxy paint to the concrete floors above these rooms to ensure the floors would be leak tight. In April 2004, a degraded flood barrier floor coating was identified and operations staff requested an engineering evaluation. An hourly flood watch was established, however, an engineering evaluation was not performed to identify and correct the material deficiency and no justification was provided for establishing an hourly flood watch. The team determined that from April 2004, to September 14, 2011, at least 30 action requests were written that identified degraded epoxy coated flood barriers. Although the flood barriers were eventually patched, no engineering evaluation was performed to identify and correct the material deficiency. The team determined that the flood barriers were degraded approximately 36 percent of the time. The licensee entered this issue into the corrective action program as Action Request/Condition Report 249288.

The finding was more than minor because it affected the Mitigating Systems Cornerstone objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences and if left uncorrected, could become a more significant safety concern because a flood in the area could adversely affect safety-related equipment. Using NRC Manual Chapter 0609 Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” dated January 10, 2008, the finding initially screened as potentially risk significant due to the flooding hazard, however, it was determined to be of very low risk significance (Green) because there was no actual loss or degradation of the safety function of the equipment protected by the flood barrier. In addition, this finding had a crosscutting aspect in the area of human performance associated with decision making because the licensee failed to communicate to persons who have the need to know in order to perform work safely, the basis for the decision to

implement an hourly flood watch and not perform an engineering evaluation in a timely manner [H.1(c)]. (Section 40A2).

Inspection Report# : [2011006](#) (pdf)

**Significance:**  Sep 16, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Three Examples of a Failure to Follow Procedures Results in Unsecured Transient Equipment and Ineffective Corrective Actions**

Green. The team identified three examples of a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to follow station procedures. The licensee entered these examples into the corrective action program as Action Request/Condition Report 249287.

The first example was a failure to properly implement the instructions of the station's seismic procedure, PPM 10.2.53, to evaluate and control transient equipment and materials. Specifically, during this inspection, on August 29 through September 1, 2011, the team identified unsecured bookcases, rolling metal ladders, and loose maintenance carts in the main control room, and barrels stored near a high pressure core spray pump that were not evaluated in accordance with seismic procedures.

The second example was the failure to perform a root cause analysis for long standing problems that have had ineffective corrective actions, as required by Procedure SWP-CAP-06, "Condition Review Group (CRG)," Revision 16, Specifically, between October 2007, and September 15, 2011, multiple examples of the failure to follow seismic procedures have been identified by past NRC inspection teams and licensee internal follow-up actions. Therefore, the team concluded Energy Northwest failed to recognize that a root cause analysis was required to address this long standing issue.

The third example was a failure to promptly implement interim corrective actions as required by Procedure SWP-CAP-01, "Corrective Actions Program." Specifically, after the team identified the improperly stored items on September 1, 2011, the licensee secured the material, but failed to implement any interim corrective actions to reduce the likelihood that the condition would not be repeated until longer term corrective actions could be implemented. On September 13, 2011, when the team asked the licensee about interim corrective actions, the licensee conducted a site stand-down to inform station personnel about the condition and procedural requirements.

The finding was more than minor because it was a programmatic deficiency, which affected the Mitigating Systems Cornerstone objective, and if left uncorrected, could lead to a more significant safety concern because a seismic event could result in the unavailability of systems used to mitigate the consequences of initiating events. Using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because it did not result in an actual loss of a system safety function, did not result in a loss of a single train of safety equipment for greater than its technical specification allowed outage time, did not involve the loss or degradation of equipment specifically designed to mitigate a seismic, flooding, or severe weather initiating event, and did not involve the total loss of any safety function that contributes to an external event initiated core damage accident sequence. In addition, this finding had a crosscutting aspect in the area of human performance, associated with the work control component, because the licensee failed to appropriately plan work on multiple occasions, resulting in job site conditions which may have impacted plant components [H.3(a)]. (Section 40A2)

Inspection Report# : [2011006](#) (pdf)

**Significance:**  Mar 26, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Ensure Unacceptable Preconditioning is Considered During the Work Management Process**

Green. The inspectors identified a noncited violation of 10 CFR Part 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to consider the impact of preconditioning on the emergency core cooling systems during maintenance. Specifically, licensee personnel failed to consider the impact of scheduling keep

fill pump maintenance prior to technical specification required surveillance testing. Licensee personnel reviewed three years worth of data on the emergency core cooling systems to ensure there was no degrading performance trend. This issue was placed in the licensee's corrective action program as Action Request/Condition Report 236880.

The performance deficiency was more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone objective of ensuring the reliability of systems that respond to initiating events. Using Inspection Manual Chapter 0609.04, Phase 1 – "Initial Screening and Characterization of Findings," the inspectors determined that this performance deficiency was of very low safety significance because this finding was confirmed to not result in a loss of operability for the emergency core cooling systems. The inspectors identified a cross-cutting issue in the area of human performance, work practices, because the licensee failed to effectively communicate expectations regarding procedural compliance [H.4.b] (Section 1R19).

Inspection Report# : [2011002](#) (pdf)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Include Appropriate Acceptance Criteria**

Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to include acceptance criteria appropriate to the circumstance in surveillance testing procedures for the 125Vdc battery system. Specifically, licensee personnel listed a non-conservative inter-tier resistance value as acceptance criteria which led to a degraded condition being unanalyzed for 3 years. The licensee has revised the procedure to include the appropriate acceptance criteria for the 125Vdc battery system. This issue has been placed in the licensee's corrective action program as Action Request/Condition Report 231971.

The performance deficiency is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone for ensuring the reliability of systems that respond to initiating events. Using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors determined that this performance deficiency was of very low safety significance because the finding was confirmed to not result in a loss of operability for the 125Vdc batteries. The inspectors determined a cross cutting aspect was not applicable to the finding due to the procedure change which implemented the new acceptance criteria occurring in 2007, and determined this not to be representative of current licensee performance (Section 1R19).

Inspection Report# : [2010005](#) (pdf)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Promptly Identify and Correct a Condition Adverse to Quality Associated with both Trains of Control Room Emergency Chillers**

Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to promptly identify and correct a condition adverse to quality involving both trains of control room emergency chillers. The hot gas bypass valves for each train of chillers were installed incorrectly. The inspectors identified that actions to correct the deficient condition were not timely. Procedure SWP MAI 01, "Work Maintenance Process Overview," Revision 20, Paragraph 8.0 stated in part that tests are conducted to verify that maintenance is effective and is correctly implemented, the equipment will function as required and desired improvements were achieved. Contrary to this, the inspectors identified that post maintenance testing conducted on the chiller was not adequate in that adjustments were allowed to be made by procedure throughout the post maintenance testing process which could have masked problems with the chillers, specifically, that the hot gas bypass valves were installed incorrectly. The hot gas bypass valves were installed correctly in both A and B trains of the control room emergency chiller systems and a satisfactory operability test was performed on chiller CCH-CR-1A on October 13, 2010.

The finding was greater than minor because it was associated with the configuration control attribute of the Mitigating Systems Cornerstone, and it affected the cornerstone objective to ensure the availability, reliability, and capability of

systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a Phase 1 screening of the finding in accordance with IMC 0609, Attachment 0609.04, "Initial Screening and Characterization of Findings," and determined the finding to be of very low safety significance because it was not a design or qualification deficiency; it did not result in the loss of a system safety function; it did not represent the loss of a single train for greater than technical specification allowed outage time; it did not represent a loss of one or more non-technical specification risk-significant equipment for greater than 24 hours; and it did not screen as potentially risk-significant due to seismic, flooding, or severe weather. The cause of this finding was determined to have no cross-cutting aspect due to the fact that the hot gas bypass valves were installed backwards more than three years ago and did not represent a current station performance issue (Section 1R19).

Inspection Report# : [2010005](#) (pdf)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Perform Engineering Evaluation to Determine Seismic Qualification of Safety-related Equipment**

Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure PPM 10.2.53, "Seismic Requirements for Scaffolding, Ladders, Man-Lifts, Tool Gang Boxes, Hoists, Metal Storage Cabinets, and Temporary Shielding Racks," Revision 26. Specifically, the position of equipment was required to meet specific criteria to prevent damage to safety related equipment during a seismic event. Contrary to this procedure, the inspectors identified that equipment was positioned adjacent to safety-related equipment without a supporting engineering evaluation. The inspectors notified the main control room personnel, who directed an equipment operator to immediately position the 55 gallon drum away from the standby liquid control system. This issue has been placed in the licensee's corrective action program as Action Request/Condition Report 230872.

This finding was more than minor because it was a human performance error which affected the Mitigating Systems Cornerstone objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance because it was not a design or qualification deficiency; it did not result in the loss of a system safety function; it did not represent the loss of a single train for greater than technical specification allowed outage time; it did not represent a loss of one or more non-technical specification risk-significant equipment for greater than 24 hours; and it did not screen as potentially risk significant due to seismic, flooding, or severe weather. A cross-cutting aspect in the human performance area with a work control component was identified in that Energy Northwest failed to appropriately plan work, resulting in job site conditions which may have impacted plant components [H.3.a] (Section 4OA2).

Inspection Report# : [2010005](#) (pdf)

---

## **Barrier Integrity**

**Significance:**  Sep 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Maintenance and Lubrication Procedures**

Green . The inspectors identified a noncited violation of Technical Specification 5.4.1.a for failure to follow Procedure PPM 10.2.80, "CVB and CSP Valve Air Operator Seal Replacement," Revision 4. On May 28, 2011, containment vacuum breaker valve CVB-V-1JK was rebuilt using Procedure PPM 10.2.80. During the procedure, the lubricant used for reassembling the pressure cylinder was not available and a substitute was used that did not meet procedure requirements specified in PPM 10.2.13, "Approved Lubricants" Revision 57. The same unapproved lubricant was used when rebuilding similarly designed containment supply purge valves CSP-V-5 and CSP-V-6. Consequently, both containment vacuum breaker valve CVB-V-1JK and similarly designed valves CSP-V-5 and CSP-V-6 exhibited signs of high friction after postmaintenance testing was complete. Inspector review of the maintenance history for these components identified that an unapproved substitute was used when reassembling the pressure

cylinder. This condition was entered into the licensee's corrective action program as Action Request 248154.

The finding was more than minor because if left uncorrected, the use of an inappropriate or unevaluated lubricant could become a more significant safety concern. This finding affected the barrier integrity cornerstone. Since the finding was discovered and corrected while in a shutdown condition, the inspectors evaluated the finding using Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The finding was determined to be of very low safety significance (Green) since it was not associated with a finding that degraded the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed, did not significantly degrade the licensee's ability to recover decay heat removal when lost and did not impact a heat removal path to the suppression pool while the vessel head was installed. The inspectors determined that the cause of the finding had a cross-cutting aspect in the area of human performance associated with the decision making component in that the licensee failed to make a safety-significant decision about lubricant selection using a systematic process and failed to obtain interdisciplinary reviews of the proposed substitute [H.1.a] (Section 1R12).

Inspection Report# : [2011004](#) (pdf)

**Significance:**  Sep 24, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Ensure Main Steam Isolation Valve Setpoint Change is Adequate**

Green. The inspectors reviewed a self revealing violation of 10 CFR Part 50 Appendix B, Criterion III for the licensee's failure to perform an adequate review of a design modification that changed the isolation logic for the main steam isolation valves from Level 2 to Level 1. This modification inadvertently changed the isolation logic for outboard containment isolation valves located in containment isolation Groups 3 and 4 due to inadequate design reviews. Prior to the modification, the containment isolation Groups 3 and 4 received a half isolation when swapping power supplies in the reactor protection system. After the modification the containment isolation Groups 3 and 4 received a full outboard isolation signal when the reactor protection system A was swapped from its normal to alternate source. The licensee changed half of the isolation logic to be powered from reactor protection system B. This issue was entered into the licensee's corrective action program as Action Request 238830.

The finding was more than minor because it affected the design control attribute of the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by events. Since the finding was discovered and corrected while in a shutdown condition, the inspectors evaluated the finding using Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The finding was determined to be of very low safety significance (Green) since it was not associated with a finding that degraded the licensee's ability to terminate a leak path or add reactor coolant system inventory when needed, did not significantly degrade the licensee's ability to recover decay heat removal when lost and did not impact a heat removal path to the suppression pool while the vessel head was installed. During the review of the licensee's root cause, the inspectors identified a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee failed to communicate issues identified from self assessments to affected personnel. Specifically, the licensee failed to take corrective action from self assessments that identified the licensee's shortcomings in reviewing vendor prepared design documents [P.3.c] (Section 4OA3).

Inspection Report# : [2011004](#) (pdf)

---

## **Emergency Preparedness**

---

## **Occupational Radiation Safety**

**Significance:**  Sep 16, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Survey**

Green. The team reviewed a self-revealing noncited violation of 10 CFR Part 20.1501(a), for the failure to survey the residual heat removal pump A room after it was secured from service. Specifically, on August 29, 2011, during a tour with the NRC inspection team, the residual heat removal system engineer received a dose rate alarm. The team left the area and contacted radiation protection. Subsequent surveys identified dose rates were as high as 120 millirem per hour at 30 centimeters from the suction piping of the pump, which required the area to be posted and barricaded as a high radiation area. The licensee appropriately controlled the area, and entered the condition into their corrective action program as Action Request/Condition Report 247542.

The finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone exposure control attribute of program and process and it affected the cornerstone objective because it resulted in an unposted high radiation area that affected the licensee's ability to adequately protect workers' health and safety from exposure to radiation. Using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the finding was determined to be of very low safety significance because it was not an ALARA finding, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. In addition, this finding had a crosscutting aspect in the area of human performance associated with the work control component, because the planned work activities did not incorporate the need for compensatory actions (e.g., surveys) to detect delayed changes in radiological conditions [H.3(a)].

Inspection Report# : [2011006](#) (*pdf*)

---

## **Public Radiation Safety**

---

## **Physical Protection**

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

---

## **Miscellaneous**

**Significance: SL-IV** Mar 26, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Make Required Event Notification**

Severity Level IV. The inspectors identified a Severity Level IV violation of 10 CFR 50.72(b)(3)(v)(D) for the failure of the licensee to make a non-emergency event notification to the NRC. Specifically, on December 20, 2010, the licensee failed to report the low pressure core spray minimum flow valve failing to open on pump start, rendering the low pressure core spray system incapable of performing its specified safety function during testing. The licensee made Event Notification 46604 on February 8, 2011, to report the identified condition. As a corrective action the licensee has informed all current shift managers, and plans to train future senior reactor operators, of the expectation to evaluate low pressure core spray system failures as a failure of a single train system to complete a safety function. This violation has been placed in the licensee's corrective action program as Action Request/Condition Report 236879.

The performance deficiency was more than minor because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the regulations in order to perform its regulatory function. The inspectors determined that this finding was not appropriate to evaluate using the Significance Determination Process due to the finding only affecting the NRC's ability to perform its regulatory oversight function. As a result, this

finding was evaluated for traditional enforcement in accordance with the NRC Enforcement Policy. This finding was determined to be a Severity Level IV violation in accordance with Section 6.9.d.9 of the NRC Enforcement Policy, dated September 30, 2010. The inspectors determined that assigning a cross-cutting aspect was not applicable to this finding due to the finding being screened exclusively using the traditional enforcement process (Section 4OA2).  
Inspection Report# : [2011002](#) (*pdf*)

Last modified : January 04, 2012