

## Point Beach 2

### 3Q/2012 Plant Inspection Findings

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#### Initiating Events

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Adequately Control Materials Classified As High Winds/Tornado Hazards**

The inspectors identified a finding of very low safety significance for the licensee's failure to maintain control over the proper storage and placement of materials that were classified as high winds/tornado hazards, within the risk significant areas of the outdoors protected area, in accordance with station procedure NP 1.9.6, "Plant Cleanliness and Storage." Specifically, the inspectors identified unsecured material on wood pallets near the station transformers 1X-04 and 2X-04, which provided offsite power to both units. The licensee took immediate corrective action to remove the material. The issue was entered into the licensee's corrective action program for resolution as action request AR01788119 for evaluation and development of additional corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Initiating Events Cornerstone attribute of equipment performance and adversely 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. Additionally, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the loose material could have affected offsite power during periods of high winds. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1 for the Initiating Events Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Exhibit 1 questions in Appendix A for transient initiators and support system initiators. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, work practices, because licensee personnel did not appropriately plan work activities by incorporating job site conditions, including environmental conditions, which might have impacted plant structures, systems, and components (H.3(a)).

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

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Plant Operation With An Unacceptable ASME Code Class 2 Pressure Boundary Flaw**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 50.55a(g)(4) because the licensee failed to identify and evaluate an American Society of Mechanical Engineers (ASME) Code Class pressure boundary flaw. Specifically, between May 22 and June 26, 2012, the licensee did not identify that leakage in the Unit 2 containment from an unknown source was from a weld in the steam generator A blowdown line, an ASME Section XI Code Class 2 high energy component. The issue was entered into the licensee's corrective action program as action requests AR01789202 and AR01797798 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Initiating Events Cornerstone attribute of equipment performance and adversely affected the reliability of the steam generation systems (steam generator, feedwater, or main steam); thereby, directly impacting the cornerstone objective to limit the likelihood of events that upset plant stability during power operations. Specifically, the inspectors determined that any potential (and subsequently actual) failure location represented both a containment barrier during a loss of coolant accident and a reactor pressure system boundary during a steam generator tube failure event, in addition to being a potential transient initiator if the leakage became more significant. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1 for the Initiating Events Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Exhibit 1 questions in Appendix A for transient initiators and support system initiators. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, conservative assumptions. Specifically, the licensee failed to use conservative assumptions in decision making because it developed an operability evaluation demonstrating that continued full power operation was acceptable without reasonable assurance that the leakage was from a mechanical joint, rather than developing reasonable assurance or providing physical evidence, either indirectly or by observation, that the leakage was not pressure boundary leakage (H.1(b)).

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

**G**

**Significance:** Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure To Incorporate Industry Operating Experience Into Preventive Maintenance Programs For Nuclear Instrumentation**

A finding of very low safety significance and associated non-cited violation of 10 CFR 50.65(a)(3) was self-revealed when an unplanned reactor trip of Unit 2 occurred on June 13, 2011, as a result of the failure of a source range detector during low power physics testing. Specifically, the licensee failed to adequately evaluate operating experience and incorporate it into its preventive maintenance program to periodically replace aging electrical subcomponents in nuclear instrumentation systems and a subsequent age related failure resulted in initiating a plant transient. The licensee entered this issue into the corrective action program, and corrective actions to prevent recurrence were initiated.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance. Specifically, the availability and reliability of the nuclear instruments was degraded to a point where an instrument failure caused a reactor trip, an event that adversely impacted the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding has a cross-cutting aspect in the area of corrective action program, evaluation/extent of condition. Specifically, the licensee failed to thoroughly evaluate related nuclear instrument failure rates so that the resolutions addressed the causes and extent of conditions for age-related failures of electrical subcomponents. (Section 4OA3.4)

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

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## Mitigating Systems

**Significance:** **G** Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Implement Risk Management Actions During Various Emergent Work Activities**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 50.65 (a)(4) because the licensee failed to properly manage and assess risk for various emergent work activities.

Specifically, the licensee failed to manage the risk associated with the gas turbine generator (G-05) failure out of service duration, the G-05 unavailability when on the turning gear, and the Unit 1 turbine electrohydraulic control (EHC) system in manual. The issue was entered into the licensee's corrective action program as action requests AR01808661 and AR01787706 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because the failure to properly manage and assess risk, if left uncorrected, would have the potential to become a more significant safety concern. Specifically, the inspectors determined that the addition of a Unit 1 transient initiator and of G-05 modeled as out of service into the licensee's safety monitor program for risk was more than minor because the licensee's risk assessment was based on incorrect assumptions that changed the outcome of the assessment. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix K, "Maintenance Risk Assessment And Risk Management Significance Determination Process," dated May 19, 2005. The inspectors determined that the finding was a mitigating systems contributor, evaluated the risk deficit for each instance, and found that the issue screened as having very low safety significance. This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to define and effectively communicate expectations regarding procedural compliance and ensure personnel follow procedures. Specifically, in all instances the licensee failed to communicate expectations regarding compliance as required by station nuclear procedure (NP) 1.1.4, and ensure personnel followed implementing procedure NP 10.3.7, for risk management (H.4(b)).

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

**Significance:** **G** Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Weld Design Deficiency In Emergency Diesel Generator Missile Protection Barriers**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for a deficiency in weld evaluations in the licensee design calculation of the new missile protection steel barriers. These barriers were installed for protection of the emergency diesel generators G-01 and G-02 exhaust pipes from a tornado missile strike. Specifically, the inspectors identified two examples where critical welds were not adequately addressed in the calculation. The issue was entered into the licensee's corrective action program as action requests AR01771762 and AR01772431 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," and Appendix E, "Example of Minor Issues," dated August 11, 2009, and found that it was similar to Example 3a and it was associated with the Mitigating Systems Cornerstone attribute of Design Control and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to

Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to ensure supervisory oversight of the contractor activities to support nuclear safety. Specifically, in the examples noted, the licensee failed to adequately review the calculation performed by the contractor to verify that the assumptions and engineering judgments were adequately justified and consistent with the installation (H.4(c)).

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

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Transient Materials Not Removed From Containment Prior To Reactor Startup**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to remove a plastic bag of transient materials that could interact with the containment sump recirculation strainer. Specifically, while performing the containment closure inspection prior to reactor startup, the inspectors identified a large plastic bag containing mop heads and cleaning materials that, if left in containment, could interact with the containment recirculation sump suction strainer. The licensee took immediate corrective action to remove the items from containment. The issue was entered into the licensee's corrective action program for resolution as action requests AR01781331 and AR01808631 for evaluation and development of additional corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating System Cornerstone attribute of equipment performance and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the low head safety injection system availability and reliability could be reduced by material clogging the recirculation sump suction strainer. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. Therefore, inspectors determined the finding to be of very low safety significance. The finding did not have a cross-cutting aspect because the cause was identical to the cause for the boric acid not being removed from containment isolation valve 2SC-955, as required by procedure, an issue also identified during the inspection, and the cross cutting aspect was captured by that issue.

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

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Incorporate WOG ERG, Revision 2, Into The EOPs**

The inspectors identified a finding of very low safety significance and associated non-cited violation of Technical Specification 5.4, "Procedures." Specifically, the licensee failed to maintain its emergency operating procedures (EOPs) with the safety significant changes provided in the Westinghouse Owners Group Emergency Response Guidelines (WOG ERGs), Revision 2. The issue was entered in the licensee's corrective action program as action request AR01779635 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating

Systems Cornerstone attribute of procedure quality and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the inspectors determined that the failure to update EOPs to implement Revision 2 of the WOG ERGs significantly beyond the current industry standard of two years would result in a delay when terminating Primary To Secondary Leakage during a steam generator tube rupture event. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, resources, because the licensee failed to assure resources were available and adequate to complete the WOG ERG, Revision 2 EOP updates in a timely manner commensurate with risk and safety (H.2(c)).

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

**Significance:** G Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure To Establish Emergency Diesel Generator Ventilation System Testing**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because the licensee failed to establish routine testing procedure that demonstrated room temperatures would be maintained. Specifically, on March 29, 2012, the inspectors identified that the licensee failed to establish routine testing procedure that demonstrated the air flows for emergency diesel generators G-01 and G-02 ventilation systems would perform adequately to ensure that the room temperatures would be maintained. The licensee entered this issue into its corrective action program, and corrective actions included performance of air flow measurements on the fan units, creation of a preventive maintenance requirement for taking periodic flow measurements, and assessment of the identified issue through a condition evaluation.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," dated December 24, 2009. The inspectors determined that this finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute for design control. Specifically, it adversely affected the Mitigating System Cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. This finding has a cross-cutting aspect in the area of human performance, decision making. Specifically, the licensee did not use conservative assumptions regarding the verification of the proper air flow through the safety related gravity dampers in the emergency diesel generators G-01 and G-02 rooms. (Section 1R19)

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

**Significance:** G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure To Follow Procedure And Implement Post-Maintenance Testing For Main Feedwater Regulating Valves Following EPU Modifications**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because the licensee failed to follow work orders to properly configure and perform post maintenance testing (PMT) of the main feedwater regulating valve (MFRV) limit switches. As a result, the limit switches that provide an input into the anticipated transient without scram mitigation system actuation circuitry (AMSAC) were not tested. Specifically, on June 10, 2011, when engineering change EC 12054 for the MFRVs was partially turned over to and accepted by operations for Mode 2 and

AMSAC was required to be functioning, the licensee failed to perform a PMT as required by plant procedures. The licensee entered this issue into its corrective action program for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because, if left uncorrected, the failure to perform PMT could lead to a more significant safety concern. Specifically, the failure to perform PMT of safety or risk related components prior to the operational condition for which the equipment was required could result in a latent failure that would only be discovered during a valid demand. This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee did not appropriately coordinate work activities by incorporating action to address the impact of changes to the activity on the plant and human performance. (H.3(b))  
Inspection Report# : [2012002](#) (*pdf*)

**Significance:**  Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure To Perform Operability Evaluations As Required By Procedure**

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to perform an operability evaluation of the impact of door deficiencies on their ability to function as a high energy line break (HELB) barrier, fire (safe shutdown) door, and flood barrier. Specifically, the inspectors identified condition reports written between December 13, 2011, and March 8, 2012, for degraded doors credited as HELB barriers, safe shutdown doors, and flood barriers; however, the licensee failed to perform an operability evaluation of the conditions as required by plant procedures. The licensee entered this issue into its corrective action program for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because, if left uncorrected, the failure to perform operability evaluations and recognize conditions that could render equipment inoperable could lead to a more significant safety concern. The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action, because the licensee failed to take appropriate action to address safety issues and adverse trends in a timely manner. Although the licensee had previously recognized this and initiated training to correct the knowledge based aspects of the issue, there were no interim barriers in place during the long duration needed to complete the training activity. (P.1(d))

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

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## **Barrier Integrity**

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Boric Acid Not Removed From Containment Isolation Valve As Required by Procedure**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to clean boric acid from the Unit 2 reactor coolant system hot leg sample isolation valve 2SC-955. Specifically, during the containment closeout tour performed by the inspectors, the inspectors identified that boric acid leakage on valve 2SC-955 had not been cleaned as required by the boric acid program. The licensee subsequently cleaned the valve prior to restart of the

reactor and entered the issue into its corrective action program for resolution as action requests AR01782290, AR01765986, AR01780951, and AR01797802, for evaluation and development of additional corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Barrier Integrity Cornerstone attribute of reactor coolant system equipment and barrier performance and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Additionally, if left uncorrected, it could impact the operators' ability to verify a containment isolation actuation, thereby adversely affecting the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, systematic processes, because the licensee failed to use a systematic process when making decisions related to the cleaning of boric acid components during the unplanned shutdown. Specifically, the licensee's communications and interfaces for performing the activities and developing corrective actions were not approached rigorously and systematically when the duration of the unplanned outage was significantly shortened, and plant startup timelines modified the expected boric acid cleaning plans (H.1(a)).

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

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Procedural Guidance For Heavy Loads Operations**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to have adequate procedures in place to ensure that heavy loads were operated safely within the primary auxiliary building (PAB). Specifically, the inspectors determined that the licensee failed to incorporate minimum crane operating temperature limits into procedures to avoid brittle fracture of structural components below the nil-ductility transition temperature. The issue was entered into the licensee's corrective action program for resolution as action request AR01783306 for evaluation and development of corrective actions which included revising procedures to identify the minimum operating temperature of the PAB crane.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Barrier Integrity Cornerstone attribute of procedure quality and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events because a PAB crane heavy load drop could cause damage to spent fuel. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 3 for the Barrier Integrity Cornerstone, dated June 19, 2012. The inspectors answered "No" to Exhibit 3 questions in Appendix A for the spent fuel pool. Therefore, the inspectors determined the finding to be of very low safety significance. In accordance with IMC 0612, Section 06.03.c, a cross-cutting aspect will not be assigned to this finding as it has occurred outside of the nominal three-year period and is not representative of present performance.

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

**Significance:** **G** Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Scaffold Construction Interferes With The Operation Of Containment Spray Suction Valve**

A finding of very low safety significance and a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," were self revealed during the preparation for surveillance testing when the licensee failed to implement existing procedural guidance for the control of clearances between installed scaffolding and plant equipment. Specifically, scaffolding was constructed too close to the Unit 2 containment spray suction isolation valve from the residual heat removal (RHR) heat exchanger interfering with the operation of the valve. The licensee entered this issue into its corrective action program for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because the finding was associated with the Barrier Integrity Cornerstone attribute of structures, systems, and components, and barrier performance, and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers, specifically the containment, would be able to protect the public from radionuclide releases caused by accidents or events. The finding has a cross-cutting aspect in the area of problem identification and resolution, trending, because the licensee did not assess information from the corrective action program in the aggregate to identify programmatic and common cause problems. Specifically, the licensee had identified similar issues of sufficient importance and quantity that if trended, had the potential to preclude the event. (P.1(b))

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

## **Emergency Preparedness**

**Significance:** **W** Apr 20, 2012

Identified By: NRC

Item Type: FIN Finding

### **Protective Action Recommendation Weakness**

An NRC identified finding with a preliminary low to moderate safety significance and one associated apparent violation of 10 CFR 50.47(b)(10) for failure to develop and put into place guidelines for the choice of protective actions during an emergency that were consistent with Federal guidance. Federal guidance for the choice of protective actions during an emergency is described in EPA 400 R 92 001, and states, in part, that withdrawal of protective actions from areas where they have already been implemented is usually not advisable during the early phase because of the potential for confusion and possibly impede implementation of protective actions which could place the public at additional risk. Additionally, Federal guidance described in NUREG 0654/FEMA REP 1, Supplement 3, states, in part, licensees should not relax protective actions until the source of the threat is under control. In the case of a known impediment to evacuation, the licensee's emergency implementing procedure, EPIP 1.3, "Dose Assessment and Protective Action Recommendations," incorrectly directed key decision makers to withdraw protective actions to evacuate the public and replace it with a recommendation to shelter the public. After the NRC identified the finding, the licensee immediately revised its emergency implementing procedure to be consistent with Federal guidance.

This finding is more than minor because it affected the Emergency Preparedness Cornerstone objective of implementing adequate measures to protect the health and safety of the public during a radiological emergency, and is associated with the cornerstone attributes of emergency response organization performance and procedure quality. Specifically, the withdrawal of implemented protective actions could cause confusion of offsite authorities and the public. The inspectors evaluated the finding using the SDP and determined this finding screened as preliminarily White. The finding has a cross cutting aspect in the area of Human Performance, Resources, because the licensee

failed to maintain complete, accurate, and up to date procedures as early as 2003 when the licensee returned sheltering to its range of protective action recommendation emergency plans and procedures.

Inspection Report# : [2012503](#) (*pdf*)

Inspection Report# : [2012504](#) (*pdf*)

## Occupational Radiation Safety

**Significance:**  Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Non-Compliance With 10 CFR 20.1701 To Control The Concentration Of Radioactive Material In Air And Ensure That Radiological Airborne Hazards Would Be Minimized In TSC During Design-Based Accident**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 20.1701. Specifically, the inspectors identified deficiencies, as of January 19, 2012, in the licensee's testing program for assuring that the technical support center (TSC) ventilation system was in compliance with the system's design basis. The licensee's TSC high efficiency particulate air and charcoal filter efficiencies were not tested to the design criteria. The licensee documented this issue in its corrective action program and the corrective actions included revising applicable procedures. In addition, the licensee performed a calculation to show that the TSC ventilation system was capable of maintaining a radiological habitability of less than 5 Rem total effective dose equivalent for the duration of the design base accidents. The calculation was based on actual historical filter testing efficiencies.

The finding was more than minor because it was associated with the program and process attribute of exposure control of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure radiation and radioactive material. Specifically, inappropriately testing installed emergency ventilation system filters designed to mitigate workers' radiation exposures did not validate that the TSC ventilation system was capable of performing its intended design function of minimizing worker exposures to airborne radioactive materials. The finding was assessed using the occupational radiation safety significance determination process and was determined to be of very low safety significance (Green) because it was not an as-low-as-is-reasonable-achievable planning issue, there was no overexposure or potential for overexposure, and the licensee's ability to assess dose was not compromised. The inspectors determined that the most significant contributor to the finding was a cross-cutting aspect in the area of human performance, resources. Specifically, the licensee failed to ensure that the TSC ventilation filter testing protocol assured compliance to the system's designed margins. (Section 2RS3)

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

**Significance:**  Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Determining An Individual's Dose Of Record With Discrepant TLD/ED Data Inputs**

The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 20.1201(c). Specifically, the licensee failed to accurately assess and assign the appropriate individual dose received on multiple (three) occasions in the first quarter 2010, given thermoluminescent dosimeter (TLD) to electronic dosimeter (ED) data mismatches. The issue was entered in the licensee's corrective action program as AR01730419. The licensee's immediate corrective actions included assigning the appropriate exposures to the involved individuals.

The finding was determined to be more than minor in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," because it was associated with the program and process attribute of the Occupational Radiation Safety Cornerstone, and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that not assigning an individual the appropriate dose received affected the licensee's ability to monitor, control, and limit radiation exposures. Specifically, the inspectors determined that the finding had very low safety significance (Green) because the finding did not involve: (1) as low as is reasonably achievable (ALARA) planning and controls; (2) a radiological overexposure; (3) there was not a substantial potential for an overexposure; and (4) there was no compromised ability to assess dose. This finding has a cross-cutting aspect in the area of human performance, work practices, specifically, that the licensee ensures the use of human error prevention techniques. (H.4(a))  
Inspection Report# : [2012002](#) (*pdf*)

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## Public Radiation Safety

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### Security

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

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### Miscellaneous

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Manager Working Outage Hours Contrary To Guidance**

The inspectors identified a Severity Level IV non-cited violation and associated finding of very low safety significance of 10 CFR 26.207(a), "Waivers," for the licensee's failure to perform multiple activities as required when licensed reactor operators in the shift manager (SM) position worked outage hours during the Unit 1 outage in fall 2011. Specifically, for each circumstance where an SM exceeded operating hours, the licensee did not meet the following requirements: a determination that the waiver is necessary to mitigate or prevent a condition adverse to safety; a face to face assessment of the individual to determine that there was reasonable assurance that the individual would be able to safely and competently perform his or her duties during the additional work period for which the waiver will be granted; and a circumstance did not exist that could not have been reasonably controlled because additional personnel could have been added to the shift to perform the related outage activities. The issue was entered into the licensee's corrective action program for resolution as action request AR01797782, for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because if left uncorrected, the exclusion of workers from work hour controls could have led to a more significant safety concern due to personnel exceeding work hour limits while performing safety related or risk significant activities. Specifically, without proper fatigue assessments, incorrect assessment or directions could be provided by the SM for routine activities or during transient/emergency response. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix M, "Significance Determination Process Using Qualitative Criteria," dated April 12, 2012. The inspectors determined that the finding was of very low safety significance because no deficiencies which affected risk significant structures, systems, or components occurred as a result of SM fatigue. This finding has a cross-cutting aspect in the area of problem identification and resolution, self and independent assessment, because the licensee failed to conduct sufficient in-depth self assessments. Specifically, the licensee conducted a self assessment of the fatigue rule annually with its corporate licensing department giving the licensee the prior opportunity to identify and correct this issue had the self assessments been more rigorous (P.3(a)).

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**Significance:** N/A Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Perform Adequate Evaluations To Ensure Compliance With 10 CFR 72.212(b)(6) And 10 CFR 72.122(b)(2)(i)**

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 72.146, "Design Control," for the licensee's failure to perform adequate evaluations to ensure compliance with 10 CFR 72.122(b)(2)(i) and 10 CFR 72.212(b)(6). Specifically, the inspectors identified that the licensee failed to evaluate that the reactor site parameters, including analyses of earthquakes, were enveloped by the transfer cask design basis. The issue was entered into the licensee's corrective action program for resolution as action request AR01780357, for evaluation and development of corrective actions.

The violation was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," and Appendix E, "Example of Minor Issues," dated August 11, 2009, and found that it was similar to Example 3i. Specifically, the licensee's lack of evaluation did not assure cask integrity during a design basis earthquake and an additional calculation was required to evaluate the effects of the design basis earthquake during dry shielded canister processing operations in the primary auxiliary building on the cask decontamination stand in accordance with the Independent Spent Fuel Storage Installation (ISFSI) licensing/design basis analysis requirements. Consistent with the guidance in the NRC Enforcement Manual, Section 2.6.D, if a violation does not fit an example in the enforcement policy violation examples, it should be assigned a severity level: (1) commensurate with its safety significance; and, (2) informed by similar violations addressed in the Violation Examples. Therefore, the inspectors determined violation screened as having very low safety significance (Severity Level IV). Specifically, following the inspection inquiry the licensee revised their calculations and determined that overturning and sliding of the transfer cask in the primary auxiliary building on the cask decontamination stand and in the spent fuel pool would not occur during the design basis earthquake. In accordance with Section 2.2 of the NRC Enforcement Policy, ISFSIs are not subject to the Significance Determination Process (SDP) and, thus, traditional enforcement will be used for these facilities and thus a cross-cutting aspect is not assigned to this violation. In accordance with Section 2.2 of the NRC Enforcement Policy, ISFSIs are not subject to the SDP and, thus, traditional enforcement will be used for these facilities and thus a cross-cutting aspect is not assigned to this violation.

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Last modified : November 30, 2012