

# Point Beach 2

## 4Q/2011 Plant Inspection Findings

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### Initiating Events

**Significance:** G Sep 02, 2011

Identified By: NRC

Item Type: FIN Finding

#### **Turbine Building Structural Steel Floor Beams Did Not Meet AISC Requirements**

. The inspectors identified a finding of very low safety significance involving the licensee's failure to meet the requirements of the American Institute of Steel Construction (AISC) Specification. Specifically, the licensee's design basis calculation failed to ensure the turbine building structural steel floor beams met the AISC specification. This finding was entered into the licensee's corrective action program. No violation of NRC requirements was identified.

The performance deficiency was determined to be more than minor because the finding was associated with the Initiating Events Cornerstone attribute of design control and adversely affected the cornerstone objective to limit the likelihood of those events that upset the plant's stability and challenged critical safety functions during shutdown, as well as power operations. The finding screened as very low safety significance (Green), because the transient initiator would not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. This finding had a cross-cutting aspect in human performance and work practice because the licensee did not ensure effective supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported. Specifically, the licensee failed to have adequate oversight of design calculation and documentation for establishing structural adequacy of the turbine building structural steel beams at EL. 44'-0." [H.2(c)] (Section 4OA5.1.b.(2))

Inspection Report# : [2011009](#) (*pdf*)

**Significance:** G Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure To Perform Required Ultrasonic Exam In Accordance With Procedures**

On March 3, 2010, the inspectors identified a finding of very low safety significance and a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for a vendor examiner's failure to follow procedure instructions and perform required circumferential ultrasonic scans of two elbow-to-pipe containment spray line welds. The licensee subsequently performed the scans with no relevant indications detected and documented the failure to perform the scans in the corrective action system.

The finding was determined to be more than minor because, if left uncorrected, the failure to perform the weld examinations could become a more significant safety concern. Absent NRC identification, the licensee would not have performed the full required exam of the weld for an indefinite period of service which would have placed the reactor coolant pressure boundary at increased risk for undetected cracking, leakage, or component failure. This finding was of very low safety significance based on the inspectors answering "No" to the Phase 1 screening question identified in the Containment Barrier column of Table 4a in Attachment 0609.04, "Phase 1 Initial Screening and Characterization of Findings," dated January 10, 2008, of Inspection Manual Chapter 0609, "Significance Determination Process." This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to effectively communicate expectations regarding procedural compliance. Specifically, the failure to perform required circumferential examinations occurred because the licensee's management staff did not adequately stress or enforce procedure adherence for this activity. In particular, procedure NDE-173 was issued as an "Informational Use" type procedure that allowed licensee staff to rely on memory to perform the procedural steps.

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

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# Mitigating Systems

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## **Failure To Perform An Operability Evaluation For Rod Drive Control System Failures**

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 as required by procedure when degraded/non conforming conditions were identified during a surveillance of the rod drive control system. Specifically, on December 10, 2010, the licensee documented rod trouble alarms in condition report 01401564, but did not identify the degraded/non conforming condition or evaluate the condition relative to support functions for technical specifications (TSs) 3.1.4 and 3.1.6. 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 it was associated with the Mitigating Systems 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 (i.e., core damage). Specifically, the failure to identify the degraded/non conforming condition and assess the impact on operations and TS requirements resulted in latent conditions that had the potential to be of greater safety significance, and in this case resulted in the failure to evaluate the degraded/non conforming condition relative to TSs 3.1.4 and 3.1.6. This finding has a cross-cutting aspect in the area of human performance, decision-making, because the licensee did not use conservative assumptions during related decision making that adopted a requirement to demonstrate that the proposed action was safe in order to proceed (H.1(b)).

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

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## **Failure To Ensure Tornado Missile Protection For EDGs G01 And G02 Exhaust Stacks**

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," involving the licensee's failure to ensure tornado missile protection for two of the emergency diesel generator (EDG) exhaust stacks, which were considered Class I components. The licensee entered this issue into the Corrective Action Program as AR 01678709.

The licensee's failure to ensure tornado missile protection for EDGs G01 and G02 exhaust stacks was a performance deficiency. The performance deficiency was determined to be more than minor because there was reasonable doubt the EDG exhaust stacks would remain functional to support EDG operation in the event tornado-induced missiles damaged the exhaust stacks. The finding screened as very low safety significance because the finding 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 a seismic, flooding, or severe weather initiating event. This finding was determined not to have a cross-cutting aspect.

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

**Significance:**  Sep 02, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## **Failure to Monitor outside Air Temperature**

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to correctly translate design basis assumptions into procedures or instructions. Specifically, the licensee failed to monitor average outside air temperature which was one of the design input criteria for the temperature heat-up calculation associated with rooms

which housed safety-related equipment. This finding was entered into the licensee's corrective action program.

The performance deficiency was associated with Mitigating System Cornerstone and determined to be more than minor because, if left uncorrected, it could lead to a more significant safety concern. The finding screened as very low safety significance (Green) because the finding 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 a seismic, flooding, or severe weather initiating event. The finding had a cross-cutting aspect in the area of human performance, resources because the licensee did not ensure adequate training and qualification of personnel. Specifically, the licensee failed to adequately train licensed operators to ensure adequate knowledge with respect to the interface between functionality of a non-safety system component and the impact of a failure on the operability of safety-related equipment. [H.2(b)]. (Section 1R21.3.b.(1))

Inspection Report# : [2011009](#) (pdf)

**Significance:**  Sep 02, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Incorporate Minimum AFW Flow Requirement into Emergency Procedures**

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure a minimum AFW flow of 275 gpm as specified in the accident analysis for the Loss of Normal Feedwater event. This finding was entered into the licensee's corrective action program.

The performance deficiency was associated with the Mitigating Systems Cornerstone attribute of design control and was determined to be more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, an AFW flow rate of less than 275 gpm as specified in the procedures did not ensure the pressurizer would not become water solid and cause an over-pressure condition within the Reactor Coolant System during the Loss of Normal Feedwater. The finding screened as of very low safety significance (Green) because the finding 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 a seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of human performance, resources because the licensee did not maintain design documentation in a complete and accurate manner. Specifically, the licensee failed to maintain Emergency Procedures consistent with the design basis analysis for LONF. [H.2(c)]. (Section 1R21.6.b.(1))

Inspection Report# : [2011009](#) (pdf)

**Significance:**  Jun 30, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Safety Injection Pump Discharge Flow Indicator Left Isolated**

A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the failure to implement the requirements of procedure NP 2.1.1, "Conduct of Operations." Specifically, from July 26, 2010, to February 23, 2011, the licensee failed to track the actual position of the valves associated with FT 925, "2P 15A SI Pump Discharge Flow," which resulted in the failure to return the valves and the transmitter to its normal configuration.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of configuration 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 answered "No" to all of the questions in the Mitigating Systems column of Table 4a of Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings"; therefore, the finding screened as very low safety significance. The finding has a cross-cutting aspect in the area of human performance, work control, because the licensee failed to control the related work activity by having procedures to address the impact of changes to the work scope or activity on the plant and human performance (H.3(a)).

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

**Significance:**  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Follow Procedures Needed To Maintain Equipment Operability With Hazard Barriers Out-Of-Service**

A finding of very low safety significance and associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions Procedures, and Drawings," was identified by the inspectors for the licensee's failure to have appropriate procedures for the control of hazard barriers. Specifically, on August 27, 2010, and as a result of a historical review of plant operating conditions resulting from NRC observations, the licensee identified multiple occurrences of inadequate controls of high energy line break barriers that resulted from inappropriate procedures.

The performance deficiency was determined to be 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 of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using IMC 0609, "Significance Determination Process," the Region III Senior Risk Analyst performed a Phase 3 analysis, since the risk information from a Phase 2 analysis (Appendix A, "Determining the Safety Significance of Reactor Inspection Findings for At Power Situations," of Inspection Manual Chapter 0609) did not contain the appropriate mitigating equipment and determined that the issue was of very low safety significance. The finding had no cross-cutting aspect associated with it because the issue was related to a failure to incorporate operating experience into procedures from a Regulatory Issue Summary issued in 2001.

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

**Significance:**  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Maintain Internal Flood Protection Features On Emergency Diesel Generators G-01 And G-02 Control Cabinets**

A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified by the inspectors for the failure of the licensee from 1995 through January 20, 2011, to correctly translate the applicable regulatory requirements and the design basis into specifications, procedures, and instructions. Specifically, the licensee modified the control cabinets of emergency diesel generators G-01 and G-02 in 1995 without the appropriate internal flood protection design features. The licensee initiated condition report AR01610979, took immediate corrective actions to correct the deficient conditions, and performed an apparent cause evaluation. At the end of the inspection period, the licensee continued to implement planned corrective actions that included establishment of preventive maintenance activities to perform flooding seal inspections and extent of condition evaluations to ensure all potential design and licensing basis flooding issues were identified and resolved.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of design control and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to ensure that internal flood protection features used to mitigate a design basis accident were maintained. The inspectors determined the finding was of very low safety significance because it was a design or qualification deficiency confirmed not to result in a loss of operability or functionality. The inspectors determined that this finding did not reflect current performance since the error was introduced in a design change that was greater than three years old; therefore, there was no cross-cutting aspect associated with this finding.

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

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## Barrier Integrity

**Significance:**  Sep 02, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## Containment Spray Pipe Support Deficiencies

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to ensure the Containment Spray Pipe Support 2S-249 and Containment Spray Pipe Anchor 2A-35 meet Seismic Category I requirements. This finding was entered into the licensee's corrective action program.

The performance deficiency was determined to be more than minor because it was associated with the Barrier Integrity Cornerstone attribute of design control 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. This finding is of very low safety significance (Green) because there was no actual barrier degradation. The inspectors did not identify a cross-cutting aspect associated with this finding because this was a legacy design issue; and therefore, was not reflective of current performance. (Section 40A5.1.b.(1))

Inspection Report# : [2011009](#) (pdf)

**Significance:**  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### Failure To Perform An Operability Evaluation For Leakage Inside Containment

A finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to perform an operability evaluation of leakage inside containment when it was identified in September 2010. Specifically, on September 26, 2010, condition report AR01397092 identified increased leakage and a related work order was initiated to inspect Unit 1 containment for the leakage source; however, an evaluation of the leak and leak location/source was not performed as required by licensee procedures.

The finding was determined to be more than minor because it was associated with the Barrier Integrity Cornerstone attribute of structure, system, and component 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 inspectors answered "No" to all of the questions in the Containment Barrier column of Table 4a of Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings"; therefore, the finding screened as very low safety significance. The finding has a cross-cutting aspect in the area of human performance, decision-making, because the licensee did not use conservative assumptions during the decision making and review process associated with the degraded condition (H.1(b)).

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

**Significance:**  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### Unacceptable Preconditioning Of Technical Specification Required Surveillance Test

A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," was identified by the inspectors for the licensee's unacceptable preconditioning of a technical specification required surveillance test on September 14, 2010, and January 18, 2011. Specifically, by performing procedure PC 97, Part 7, service water flushes of the Unit 2 containment fan cooler (CFC) units prior to the performance of the fan cooler units' monthly surveillance tests, the licensee failed to ensure that work activities were sequenced in a manner that preserved the as found conditions of the structure, system, and component (SSC), which constituted unacceptable preconditioning. Upon notification from the inspectors of this issue, the licensee initiated a condition report and subsequently performed a condition evaluation that proposed permanent corrective actions such as procedure changes to explicitly prohibit such sequencing of activities. Additionally, in the interim, the licensee immediately communicated to its operators the need to sequence the activities appropriately.

The finding was determined to be more because it was associated with the Barrier Integrity Cornerstone attribute of SSC and Barrier Performance and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers (containment, in this case) protect the public from radionuclide releases caused by accidents

or events. Specifically, because the preconditioning altered the as found condition of the CFCs, the data collected through the performance of the procedure TS 34 surveillance tests were not fully indicative of the true equipment performance trends of the CFCs. Therefore, this performance deficiency had a direct effect on the licensee's ability to fully assess the past operability of the system, as well as the ability to trend as found data to assess the reliability of the CFCs. The inspectors determined that the finding has a cross-cutting aspect in the area of human performance, work control, because the licensee did not appropriately coordinate work activities by failing to incorporate actions to address the impact of work on different job activities.

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

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **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.

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## **Miscellaneous**

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