

# Point Beach 2

## 3Q/2009 Plant Inspection Findings

---

### Initiating Events

**Significance:**  Mar 27, 2009

Identified By: NRC

Item Type: FIN Finding

#### **Failure To Adequately Control High Winds/Tornado Hazards**

A finding of very low safety significance was identified by the inspectors for the licensee's failure to maintain control over the proper storage and placement of materials, within the risk significant areas of the outdoors protected area, that were classified as high winds/tornado hazards in accordance with station procedures PC 99, "Tornado Hazards Inspection Checklist," and NP 1.9.6, "Plant Cleanliness and Storage." Specifically, these unsecured items were identified near the Unit 1 and Unit 2 main transformer lines, auxiliary transformers, and the G 03/G 04 emergency diesel generator building. Once notified, the licensee removed or secured the materials appropriately and entered the issue into its corrective action program. At the end of the inspection period, the licensee continued to perform a root cause evaluation and develop long-term corrective actions.

The finding was determined to be more than minor because if left uncorrected, the loose items would become a more significant safety concern. The inspectors evaluated the finding using the Significance Determination Process in accordance with Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," dated January 10, 2008. The finding is of very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. Additionally, the inspectors determined that the finding had a cross-cutting aspect in the area of human performance, work practices component, because the licensee failed to ensure adequate supervisory and management oversight of the implementation and follow through of the corrective actions from previous related issues (H.4(c)).

Inspection Report# : [2009006](#) (*pdf*)

**Significance:**  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Inspection Procedure for Containment Polar Crane Structures**

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," was self revealed for the failure to have inspection procedures appropriate to the circumstances for the Unit 1 and Unit 2 containment polar cranes and their integral support structures. Specifically, station routine maintenance procedure 1(2) RMP 9118 1(2), "Containment Building Crane OSHA Operability Inspections," did not require that the polar crane lateral restraint bolts be inspected to ensure that they do not show signs of degradation or movement, e.g., flaking paint or being backed out of position. As a result, improperly installed bolts went undiscovered by the licensee until a failed bolt was found on October 16, 2008, lying on the containment floor. The discovery prompted further inspection of the entire crane support structure and led to the de rating of the polar crane's lifting capacity from 100 tons to 40 tons. In addition to conducting an extent-of-condition inspection, the licensee entered the issue into its corrective action program (CAP), replaced all degraded bolts, and performed an apparent cause evaluation.

The finding was determined to be more than minor because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance and affected the cornerstone objective of limiting the likelihood of those events that challenge critical safety functions during shutdown. Specifically, failing to visually inspect critical bolting locations on crane supports could have allowed the use of the polar crane for heavy load lifts while in a degraded condition, increasing the likelihood of a load drop. The inspectors determined that the finding could be evaluated in accordance with Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations SDP [Significance Determination Process]," dated February 28, 2005. The issue did not need a quantitative assessment and

screened as Green using Figure 1. This finding has a cross-cutting aspect in the area of human performance, resources, for the failure to have complete and accurate procedures in place. Specifically, the vague and insufficient detail in the crane inspection procedures contributed to the licensee's failure to perform an adequate inspection to identify degraded components prior to their failure [H.2(c)].

Inspection Report# : [2008005](#) (pdf)

---

## Mitigating Systems

**Significance:**  Jun 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate Seismic Assessment Of Temporary Cable Installations Above Motor-Driven Auxiliary Feedwater Pumps**

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 of the licensee's modification process to ensure that new 4160-volt cables installed for proposed auxiliary feedwater (AFW) pump motor replacements were installed in accordance with applicable regulatory requirements. Specifically, no seismic design evaluation was completed prior to the installation of the cable coils suspended above the existing motor-driven AFW pumps for over 6 months. In response to the issue, the licensee installed a new restraint designed to meet seismic criteria and completed calculations that showed the as-left condition of the modification did not challenge operability.

This performance deficiency was more than minor because it was associated with the Mitigating System Cornerstone attribute of design control and adversely affected the cornerstone objectives of ensuring the availability, reliability, and capability of systems to respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, once identified, the modification required rework to comply with applicable design requirements. The inspectors determined the finding was of very low safety significance (Green) because the issue did not result in the actual loss of a safety function. The inspectors also determined the finding has a cross cutting aspect in the area of human performance, work control, because the licensee failed to incorporate risk insights and planned contingencies into work plans (H.3(a)).

Inspection Report# : [2009003](#) (pdf)

**Significance:**  Jun 30, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Inadequate Work Instructions And Procedures For 2P-11B Component Cooling Water Pump Maintenance**

A finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self revealed for the failure to have adequate work instructions and procedures in place for the March 2009 repair of the 2P 11B component cooling water (CCW) pump. Specifically, the work instructions did not contain sufficient guidance to ensure the proper installation, alignment, and adequacy of material conditions for reuse, of critical pump components. As a result, the CCW pump was returned to service, while still in a degraded state, and required an additional entry into a technical specification action condition 2 weeks later for unplanned corrective maintenance to replace components and repair an oil leak. In response to the issues, the licensee overhauled the pump and performed an apparent cause evaluation, which identified additional long term corrective actions.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the CCW pump was degraded with an oil leak from the inboard bearing motor side oil seal and may not have been able to fulfill the 30-day mission time of the pump. The inspectors determined that the finding was of very low safety significance (Green) because the finding did not involve a design or qualification

deficiency, did not represent an actual loss of safety function, or represent a single train loss of safety function for greater than the Technical Specification-allowed outage time, and was not potentially risk-significant for external events. The inspectors also determined that this finding has a cross-cutting aspect in the area of human performance, resources, because the level of training provided to the station personnel limited their ability to identify technical procedural deficiencies encountered during pump maintenance (H.2(b)).

Inspection Report# : [2009003](#) (pdf)

**Significance:**  Jun 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

**Non-Conservative Technical Specification Limit Value For The 48-Hour Diesel Fuel Oil Storage Volume**

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 diesel fuel oil storage volume for the emergency diesel generators (EDGs). Specifically, the licensee failed to account for the fuel consumption of a second EDG when establishing the value for the Technical Specification limit for the 48-hour diesel fuel oil storage volume. In response to the issue, the licensee implemented compensatory actions to maintain an adequate fuel volume.

This performance deficiency was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring availability of the EDG to respond to initiating events to prevent undesirable consequences. This finding was of very low safety significance (Green) because the inspectors determined that the finding was a design deficiency confirmed not to result in loss of operability or functionality and the finding screened as Green using the Significance Determination Process Phase 1 screening worksheet. The inspectors did not identify a cross cutting aspect associated with this finding because the performance deficiency occurred many years ago.

Inspection Report# : [2009003](#) (pdf)

**Significance:**  Jun 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Work Instructions For South Service Water Header Work**

. The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures and Drawings," for the failure to have work instructions and procedures commensurate with the risk associated with maintenance on the south service water (SW) system header. Specifically, the licensee did not have work instructions and procedures that assigned appropriate operator actions and contained contingency plans to rapidly restore the header to service if directed by the shift manager. The licensee entered this issue into the corrective action system and made procedure changes for work affecting the operability of a SW header.

This finding was determined to be more than minor because the finding was associated with the Mitigating System Cornerstone attribute of procedure quality and adversely affected the cornerstone objectives of ensuring the availability, reliability, and capability of systems to respond to initiating events to prevent undesirable consequences. Specifically, the work instructions for the maintenance activity did not incorporate the risk associated with the loss of all SW, since this system is the only safety-related system that provides cooling water to plant systems required to respond to initiating events. The inspectors determined the finding to be of very low safety significance (Green) because the issue did not result in the actual loss of a safety function. The inspectors also determined the finding has a cross-cutting aspect in the area of human performance, work control, because the licensee failed to incorporate risk insights and planned contingencies into work plans (H.3(a)).

Inspection Report# : [2009003](#) (pdf)

**Significance:**  Mar 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate Design Of Diesel Fuel Oil Tank Vent For Tornado Protection**

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 the failure to fully incorporate applicable tornado missile protection design requirements into the design of the 'A' train diesel fuel oil storage and transfer system. Specifically, the T-175A underground fuel oil storage tank vent line was found not capable of withstanding the effects of a design basis tornado missile strike without resulting in the subsequent loss of capability of the G 01 and G 02 emergency diesel generators to perform their safety functions. The licensee performed a prompt operability determination, concluded that the system was operable but non conforming, and put in place compensatory measures until the design deficiency had been resolved.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," dated December 4, 2008, because the finding was associated with the Mitigating Systems Cornerstone attribute of Design Control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, closure of the T 175A vent path would adversely affect the availability, reliability, and capability of the G 01 and G 02 emergency diesel generators to perform their safety-related functions. The inspectors determined the finding could be evaluated using the Significance Determination Process in accordance with Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a for the Mitigating Systems Cornerstone, dated January 10, 2008. The finding was determined to be of very low safety significance (Green) because the finding was a design deficiency confirmed not to result in loss of operability. The inspectors did not identify a cross-cutting aspect associated with this finding as the performance deficiency occurred in the 1990s and was not indicative of current performance.

Inspection Report# : [2009002](#) (*pdf*)

**G**

**Significance:** Mar 27, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure To Adequately Input Mechanism Operated Control Switch Failure Evaluations and Recommendations Into Maintenance Procedures**

A finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the failure to have appropriate maintenance procedures for Mechanism Operated Cell (MOC) switches. Specifically, the licensee failed to have steps in the MOC switch preventative maintenance procedures for specific inspection and verification actions at the frequency, and with actions, recommended by causal evaluations and the vendor. The licensee entered this issue into the corrective action program and was evaluating corrective actions.

The finding was determined to be more than minor because if left uncorrected the issue would lead to a more significant safety concern. Specifically, the failure to identify degraded hardware on a MOC switch could lead to the failure of associated safety related equipment and alarms. The issue was of very low safety significance based on a Phase 1 screening in accordance with Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," dated January 10, 2008. This finding has a cross-cutting aspect in the area of problem identification, corrective action program component, because the licensee failed to thoroughly evaluate problems such that the resolutions addressed causes and extent of condition as necessary (P.1(c)).

Inspection Report# : [2009006](#) (*pdf*)

**G**

**Significance:** Mar 27, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inverter Maintenance Procedures Did Not Include Steps For Capacitor Replacement**

. A finding of very low safety significance (Green) and 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 have appropriate maintenance procedures and work instructions in place for certain safety-related inverters. Specifically, the licensee failed to have steps in the routine maintenance procedure (RMP) 9036 series maintenance

procedures for periodic replacement of the electrolytic capacitors in the SCI-model inverters as recommended by the vendor. The licensee entered this issue into the corrective action program, scheduled replacement of the capacitors, and was further evaluating the vendor recommendation.

The finding was more than minor because, if left uncorrected, the finding would become a more safety significant concern. Not replacing the electrolytic capacitors in the SCI inverters based on the vendor recommended life could result in the failure of the inverter to perform their safety function and respond to initiating events. The issue was of very low safety significance based on a Phase 1 screening in accordance with Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," dated January 10, 2008. This finding had a cross-cutting aspect in the area of problem identification and resolution, corrective action program component, because the licensee failed to implement and institutionalize operating experience, including vendor recommendations, through changes to station procedures (P.2(b)).

Inspection Report# : [2009006](#) (pdf)

**Significance: SL-III** Mar 09, 2009

Identified By: NRC

Item Type: VIO Violation

**Failure to Notify NRC of Licensed Operator Medical Restrictions in accordance with 10 CFR 50.9 and 55.23.**

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on November 25, 2008 through March 9, 2009, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

1. Title 10 CFR 50.74(c) requires that each licensee notify the appropriate NRC Regional Administrator within 30 days of a permanent disability or illness, as described in 10 CFR 55.25, of a licensed operator or a senior operator. Contrary to the above, from May 1999 until October 20, 2008, a period greater than 30 days, the licensee failed to notify the NRC Region III Regional Administrator of a permanent disability or illness of a licensed operator. Specifically, the licensee was informed in February 1993 that the non-licensed operator was taking prescribed medication for hypertension, a permanent disability or illness. The non-licensed operator applied for an NRC operating license in May 1999. The NRC issued the operator a reactor operator license August 27, 1999, and a senior reactor operator license on February 22, 2002, with no restrictions. The licensee did not inform the NRC of the operator's medical condition until October 20, 2008.

2. Title 10 CFR 50.9 requires, in part, that information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, Orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects. Title 10 CFR 55.23 requires, in part, that to certify the medical fitness of the applicant, an authorized representative of the facility licensee shall complete and sign NRC Form 396, "Certification of Medical Examination by Facility Licensee." The NRC Form 396, when signed by an authorized representative of the facility licensee, certifies that a physician conducted a medical examination of the applicant and that the guidance contained in American National Standards Institute/American Nuclear Society (ANSI/ANS) Standard 3.4-1996, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants" was followed in conducting the examination and making the determination of medical qualification.

The ANSI/ANS 3.4-1996, Section 5.3, provides, in part, that the presence of certain medical conditions, unless adequately compensated by the methods specified in Subsections 5.3.1 through 5.3.9, shall disqualify the individual.

Contrary to the above, on January 28, 2008, the facility licensee provided information to the NRC that was not complete and accurate in all material respects. Specifically, the licensee submitted an NRC Form 396 for renewal of a senior reactor operator's license and the NRC Form 396 certified that the applicant met the medical requirements of ANSI/ANS 3.4 1996 with no restrictions. However, In February 1993, the operator was prescribed medication to adequately compensate for a disqualifying medical condition. The certification by the senior licensee facility representative was material to the NRC because the NRC relied upon this certification to renew the senior reactor operator's license pursuant to 10 CFR Part 55 when the license should have been modified with a restriction that the senior reactor operator was required to take medication as prescribed to maintain his qualification.

This is a Severity Level III problem (Supplement VII).

The associated two AVs 2009-008-01 and 2009-008-02 were combined to form this one SLiii Problem.

## Barrier Integrity

**Significance:**  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **Non-Conservative Low Temperature Overpressure Protection Setpoints**

A finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was self revealed upon discovery of the use of a non-conservative setpoint for the Low Temperature Overpressure Protection (LTOP) systems for Units 1 and 2. Specifically, licensee calculation 2000-0001, “RCS [Reactor Coolant System] Pressure and Temperature Limits and Low Temperature Overpressure Protection Setpoints Applicable through 32.2 EFPY[Effective Full Power Years] – Unit 1 and 34.0 EFPY – Unit 2,” established an LTOP setpoint of 500 pounds per square inch – gauge (psig). However, by using the setpoint calculation methodology of 10 CFR Part 50, Appendix G, the resulting LTOP setpoint was calculated to be 420 psig. Therefore, the 500 psig setpoint was found to be non conservative and the LTOP systems were declared inoperable. As part of its corrective actions, the licensee revised the LTOP setpoints from 500 psig to 420 psig and made changes to operating procedures to delineate the acceptable operating conditions of the reactor coolant pumps and charging pumps during low temperature conditions.

The finding was determined to be more than minor because the finding was associated with the human performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers, such as containment, protect the public from radionuclide releases caused by accidents or events. Specifically, the non-conservative LTOP setpoint provided reasonable doubt that the integrity of the RCS pressure boundary would be maintained during low temperature conditions. The inspectors determined the finding could be evaluated using the Significance Determination Process in accordance with Inspection Manual Chapter 0609, “Significance Determination Process,” Attachment 0609.04, “Phase 1 - Initial Screening and Characterization of Findings,” Table 4a for the Barrier Integrity Cornerstone, dated January 10, 2008. The inspectors determined that the finding was of very low safety significance (Green) because all of the questions in the containment barrier column of Table 4a were answered NO and the actual setpoint of the power operated relief valves was 415 psig, below the revised LTOP setpoint. The inspectors also determined that the finding has a cross cutting aspect in the area of problem identification and resolution, corrective action program component, because personnel did not use a low threshold for identifying issues [P.1(a)].

Inspection Report# : [2008005](#) (pdf)

---

## Emergency Preparedness

---

## Occupational Radiation Safety

---

## Public Radiation Safety

**Significance:**  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Establish Written Procedures to Implement the Effluent Control Program**

The inspectors identified a finding of very low safety significance and an associated Non-Cited Violation of Technical Specification 5.4.1 for the failure to establish written procedures to implement the radioactive effluent control program as provided in the Offsite Dose Calculation Manual to ensure effluent sample analyses satisfied required detection criteria. Specifically, no process was established to ensure that effluent analysis capabilities for chemistry analytical equipment were periodically demonstrated to meet required lower levels of detection (LLDs). As corrective actions, the licensee subsequently performed LLD determinations for its analytical equipment (gamma spectroscopy system) and developed procedures to ensure LLDs were periodically verified consistent with industry standards.

The finding was determined to be more than minor because it affected the program and process attribute of the Public Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive material released into the public domain. Specifically, given the instability in the licensee's gamma spectroscopy system since 2007, as evidenced by repetitive performance check failures, the ability of the equipment to achieve required LLDs could have been impacted or necessitated changes in analysis parameters (such as count times) resulting in non-conservative effluent quantification. The inspectors determined that the finding was of very low safety significance (Green) because it did not represent a substantial failure to implement the effluent release program or result in public dose that exceeded specified criterion. The inspectors also determined that the finding has a cross-cutting aspect in the area of human performance, resources component, in that the licensee failed to develop procedures to fully implement its effluent program as provided in the Offsite Dose Calculation Manual (ODCM) [H.2(c)].

Inspection Report# : [2008005](#) (*pdf*)

---

## **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:** N/A Mar 27, 2009

Identified By: NRC

Item Type: FIN Finding

### **Biennial Problem Identification and Resolution Report Summary**

Based on the samples selected for review, the inspectors concluded that implementation of the corrective action program (CAP) was adequate. The inspectors noted that the licensee has a sufficiently low threshold for identifying issues and entering them in the CAP and established additional directions to ensure a lower threshold was consistently used. Prioritization of items entered in the CAP was adequate with recent improvements that have reduced the action item backlog and allowed the station to focus on higher priority items. The inspectors noted that the licensee entered operating experience into the CAP but did not always fully evaluate the information for applicability to station components. Audits and self assessments were determined to be performed at an appropriate level to identify deficiencies. On the basis of licensee self-assessments and interviews conducted during the inspection, workers at the site expressed freedom to raise safety concerns

Inspection Report# : [2009006](#) (*pdf*)

**Significance:** N/A Dec 31, 2006

Identified By: NRC

Item Type: AV Apparent Violation

### **NRC to Review Items in Confirmatory Order Dated January 3, 2007, for Employment Discrimination Settlement.**

In a letter dated January 3, 2007 (ADAMS Accession Number ML063630336), the NRC issued a Confirmatory Order

to the licensee as part of a settlement agreement through the NRC's Alternative Dispute Resolution (ADR) process. The NRC investigated an alleged violation of 10 CFR 50.7, "Employee Protection," to determine whether a senior reactor operator was the subject of retaliation for raising a nuclear safety concern in the licensee's corrective action program. This issue was resolved through the NRC's ADR program and will be tracked as Apparent Violation (AV) 05000266/2006013-05; 05000301/2006013-05 pending NRC review of the licensee's completion of items specified in the Confirmatory Order.

NOTE: All of the specific items from this AV are also tracked as ORDER items in RPS/IR.

Inspection Report# : [2006013](#) (*pdf*)

Inspection Report# : [2008003](#) (*pdf*)

Last modified : December 10, 2009