

## Point Beach 1 3Q/2014 Plant Inspection Findings

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### Initiating Events

**Significance:** G Sep 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Perform Required Fire Watch Inspections**

The inspectors identified a finding of very low safety significance and associated NCV of license condition 4.F for the failure to conduct required fire watch inspections. Specifically, the licensee failed to inspect multiple fire zones at the correct frequency and to identify work activities that could introduce potential ignition sources, combustible materials, and other abnormal activities that could introduce an increased likelihood of a fire starting in the fire zone. The licensee implemented short term corrective actions, which included issuing guidance to personnel that prescribed a specific route and general timeframe for performing fire watch inspections, as well as, requiring the fire watches to initial for each individual fire zone for each inspection.

The finding was determined to be more than minor because the failure to conduct the required fire watch inspections was associated with the Initiating Events cornerstone attribute of Protection Against External Events (Fire) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage). The inspectors evaluated the finding in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Screening and Characterization of Findings," Table 3, "SDP Appendix Router." In Question 2 of Section E, "Fire Protection," the inspectors answered "yes" to the screening question "Does the finding involve: 1) A failure to adequately implement fire prevention and administrative controls for transient combustible materials, transient ignition sources, or hot work activities?" Therefore, a detailed risk evaluation was performed by the Senior Reactor Analysts (SRAs) using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," and the licensee's preliminary NFPA-805 analyses as described in Section 1R05.1. Based on the detailed risk evaluation, the SRAs determined that the finding was of very low safety significance. This finding has a cross-cutting aspect of Avoid Complacency (H.12), in the area of human performance, for failing implement appropriate error reduction tools.

Inspection Report# : [2014004](#) (*pdf*)

**Significance:** G Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **A Failure to Provide Sufficient Field Overlap to Ensure 100 Percent Coverage**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion IX, "Control of Special Processes," for a failure to provide sufficient magnetic field overlap to ensure 100 percent coverage while performing a magnetic particle examination (MT) on a steam generator feedwater nozzle weld. The examiner reexamined the area to meet the Code coverage and entered the issue into its Corrective Action Program (CAP) as action request (AR) 01951316.

The inspectors determined that this issue was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because the inspectors answered "yes" to the More-than-Minor question, "If left uncorrected, would the performance deficiency have the potential to lead to a more significant safety concern".

Specifically, the required MT examination coverage/overlap was not verified/measured but rather assumed to be adequate by the examiner, and absent NRC intervention, would have returned the component to service for an indefinite period of service, which would have placed the nozzle/piping at increased risk for undetected cracking, leakage or component failure. In accordance with Table 2, “Cornerstones Affected by Degraded Condition or Programmatic Weakness,” of IMC 609, Attachment 4, “Initial Characterization of Findings,” issued June 19, 2012, the inspectors checked the box under the Initiating Events Cornerstone because leakage at this feedwater piping could be a transient initiator contributor.

The inspectors determined this finding was of very low safety significance (Green) based on answering “no” to the questions in Part A of Exhibit 1, “Initiating Events Screening Questions,” in IMC 0609, Attachment A, “The Significance Determination Process for Findings At-Power,” issued on June 19, 2012. Specifically, the inspectors answered “no” to the screening question, “Did the finding cause a reactor trip AND the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g., loss of condenser, loss of feedwater)”. The inspectors answered no to this question because the examiner re-examined the area of incomplete coverage and did not identify rejectable flaws. The inspectors determined that the primary cause of the failure to ensure sufficient field overlap while performing a MT examination was related to the cross-cutting component of Human Performance, “Field Presence,” because the licensee failed to provide oversight of work activities; including contractors and supplemental personnel. Specifically, proper oversight at the pre-job brief would have ensured the issue of overlap was discussed and understood.

The inspectors determined that proper oversight at the pre-job brief could have ensured the issue of overlap was discussed and understood. Additionally, good direct oversight of the test could have provided the ability to reinforce the correct method of performing the test as well as enabling the site to discover the error instead of the inspector identifying the problem [H.2].

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Jun 30, 2013

Identified By: NRC

Item Type: FIN Finding

**Failure to 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, in accordance with procedure NP 1.9.6, “Plant Cleanliness and Storage.” Specifically, the inspectors identified that the licensee failed to perform weekly high wind missile hazards inspections since April 17, 2013. As a result, unsecured wooden pallets, wooden planks, metal rods and a metallic desk were discovered by the inspectors near Units 1 and 2 transformer areas. The issue was entered into the licensee’s corrective action program (CAP) for resolution as action request AR01882921. The licensee took immediate corrective action to remove and/or properly store the material after the tornado warning on June 17, 2013.

The inspectors determined the finding to be more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, the unsecured items would have the potential to lead to a more significant safety concern during high wind and tornado events. The inspectors determined the finding to be of very low safety significance because the inspectors answered “No” to each question listed in IMC 0609, Appendix A, Exhibit 1, “Initiating Event Screening Questions.” The inspectors determined that the finding has a cross cutting aspect in the area of human performance, work practices, because the licensee did not provide supervisory or management oversight of work activities such that nuclear safety was supported. Specifically, the licensee failed to provide appropriate oversight of work activities such that, when the program owner of the weekly high wind inspection changed, the requirement to perform weekly high winds tornado hazard walkdowns was not understood (H.4(c)).

Inspection Report# : [2013003](#) (*pdf*)

## Mitigating Systems

**Significance:**  Sep 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Identify Degraded Water Sprinkler System**

The inspectors identified a finding of very low safety significance and associated NCV of license condition 4.F for the licensee's failure to identify a degraded water sprinkler system in the service water pump room and implement hourly fire watch inspections. Specifically, the licensee installed scaffolding in the service water pump room that interfered with the operation of the water sprinkler system and failed to implement hourly fire watch inspections as a compensatory measure. The licensee began fire watch inspections and credited installed fire hoses in the area for backup suppression until the planking could be removed from the scaffolding.

The finding was determined to be more than minor because the failure to identify the degraded sprinkler system and implement compensatory fire watch inspections was associated with the Mitigating Systems cornerstone attribute of Protection Against External Events (Fire) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage). In accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Table 2, the inspectors determined the finding affected the Mitigating Systems cornerstone. The finding degraded fire protection defense-in-depth strategies, and the inspectors determined, using Table 3, that it could be evaluated using Appendix F, "Fire Protection Significance Determination Process." The inspectors screened the issue to Green under the Phase 1 Screening Question 1.3.1-A, because the inspectors determined that the impact of a fire would be limited to one train/division of service water pumps and a credited safe shutdown path would be unaffected. This finding has a cross-cutting aspect of Procedure Adherence (H.8), in the area of human performance, because the licensee did not follow processes, procedures, and work instructions.

Inspection Report# : [2014004](#) (*pdf*)

**Significance:**  Sep 30, 2014

Identified By: NRC

Item Type: FIN Finding

### **Incomplete Prompt Operability Determination of Non-Seismic Block Wall**

The inspectors identified a finding of very low safety significance due to the licensee's failure to follow procedure EN AA 203 1001, "Operability Determinations/Functionality Assessments." Specifically, when the licensee identified that the north non-vital switchgear (NVSGR) block wall was found to be non-seismic and potentially susceptible to collapsing and blocking the flood relief dampers, they failed to evaluate all potential water sources that could spray or flood the NVSGR and cascade into the vital switchgear room below. Following questions by the inspectors, the licensee evaluated the additional water sources; isolated two additional fire protection hose reels on the south side of the NVSGR; and updated the prompt operability determination (POD).

The finding was determined to be more than minor because the failure to evaluate and disposition each potential flood source in the POD was associated with the Mitigating Systems cornerstone attribute of Protection Against External Events (Seismic) and affected the cornerstone objective of preventing undesirable consequences (i.e., core damage). The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 4, "External Events Screening Questions," dated June 19, 2012. The inspectors answered "yes" to question 1 of External Events screening questions since the finding could potentially degrade one train of the emergency power system. The inspectors consulted the regional SRA, who completed a detailed risk evaluation, and determined that the finding was of very low safety-significance. This finding has a cross-cutting aspect of Identification (P.1), in the area of problem identification and resolution, for failing to identify issues completely, accurately, and in a timely manner in accordance with the

program.

Inspection Report# : [2014004](#) (*pdf*)

**Significance:**  Jun 30, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Age Related Relay Failures Result in Inoperable Inverters**

A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was self-revealed for the failure to replace safety-related inverter components at the vendor prescribed 10 year frequency. Specifically, after concluding that safety-related inverter relays were required to be replaced at a 10-year frequency, per vendor direction, the licensee failed to promptly replace the remaining relays that were eighteen years old or evaluate if the relays could remain in service until the next scheduled 10 year inverter overhaul. The licensee entered the issue into their CAP and replaced the remaining K2 relays that were past their 10-year replacement frequency in April and June of 2014 and has plans to replace the remaining K1 relays, which provide alarm only function, in 2015.

The inspectors determined finding was more than minor because it was associated with the Equipment Performance attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences.

Specifically, the performance deficiency resulted in three additional K2 relay failures in 2013 and 2014, two of which occurred while the inverters were carry instrument bus loads and caused the inoperability of the associated inverters. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings." Because the finding impacted the Mitigating Systems Cornerstone, the inspectors screened the finding through IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," using Exhibit 2, "Mitigating Systems Screening Questions." The inspectors concluded that the finding was of very low safety significance (Green), because the inspectors answered "No" to the Mitigating Systems screening questions. This finding has a cross cutting aspect of Resolution (P.3), in the area of Problem Identification and Resolution because the licensee failed to take effective corrective actions to address issues in a timely manner commensurate with their safety significance.

Inspection Report# : [2014003](#) (*pdf*)

**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Measure Interpass Temperature**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion IX, "Control of Special Processes," for a failure to measure the interpass temperature while performing welding on the auxiliary feedwater (AFW) piping system in accordance with welding procedure specifications (WPS) FP-PE-B31-P1P1-GTSM-001. Consequently, welding was performed without the Code and procedure required interpass temperature being monitored on a number of welds, a parameter which can affect the mechanical properties of the material being welded. To restore compliance, the welder proceeded to measure the interpass temperature and ensured that the temperature requirement would not have been exceeded. The licensee entered this issue into their CAP as AR 01950601.

The inspectors determined that this issue was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because the inspectors answered "yes" to the More-than-Minor question, "If left uncorrected, would the performance deficiency have the potential to lead to a more significant safety concern".

Specifically, absent NRC intervention, the welder would have completed all of the welds without having measured the interpass temperature, a welding parameter which can affect the mechanical properties (e.g., impact properties) of some materials being welded, and could lead to a potential failure of the weld in service. In accordance with Table 2,

“Cornerstones Affected by Degraded Condition or Programmatic Weakness,” of IMC 609, Attachment 4, “Initial Characterization of Findings,” issued June 19, 2012, the inspectors checked the box under the Mitigating Systems Cornerstone because leakage at this AFW piping could degrade short term heat removal. The inspectors determined this finding was of very low safety significance (Green) based on answering “no” to the questions in Part A of Exhibit 1, “Mitigating Systems Screening Questions,” in IMC 0609, Attachment A, “The Significance Determination Process for Findings At-Power,” issued on June 19, 2012. Specifically, the inspectors answered, “yes” to the screening question “If the finding is a deficiency affecting the design or qualification of a mitigating structures systems component (SSC), does the SSC maintain its operability or functionality”. The welder subsequently performed interpass temperature measurements and demonstrated that the temperature would remain below the required temperature of the welds in question, and the issue did not result in the actual loss of the operability or functionality of a safety system.

The inspectors determined that the primary cause of the failure to measure the interpass temperature in accordance with WPS FP-PE-B31-P1P1-GTSM-001 was related to the cross-cutting component of Problem Identification and Resolution, P.4 “Trending”. The organization failed to periodically analyze information from the corrective action program and other assessments in the aggregate to identify programmatic and common cause issues. Point Beach had experienced a number of issues related to welding in the weeks before the interpass temperature issue, leading to some 19 welding-related action request (ARs) being written. The total of these issues presented the site with the opportunity to evaluate if there were problems with the conduct of the welding program. Resulting increased focus could have led to licensee identification of, or prevention of, the lack of taking temperatures.

Inspection Report# : [2014002](#) (*pdf*)

**Significance:** G Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Perform Flood Reviews of Material That Could Affect Flood Relief Paths**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure to follow procedures. Specifically, the licensee failed to perform a flood review, as required by NP 8.4.17, “PBNP Flooding Barrier / Relief Path Program,” Revision 15, when work activities in the G-02 EDG room left a lightweight wet floor safety sign that could have been transported during a license basis internal flood event and affected the flow capacity of the flood relief slots. The licensee’s short-term corrective actions included removing the material from the G-02 EDG room and communicating to station personnel the importance of not leaving susceptible material unattended. The licensee entered this issue into their CAP as AR 01960472.

The inspectors determined that the finding was more than minor, because, if left uncorrected, it could have the potential to become a more significant safety concern. Specifically, if the licensee was not performing flood reviews for material left unattended during or after work activities, susceptible unattended material could be transported to credited flood relief dampers and impeded the design flow rate required for the dampers to protect safety related equipment. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Initial Characterization of Findings,” dated June 19, 2012, and Appendix A, “The Significance Determination Process for Findings At-Power,” Exhibit 4, “External Events Screening Questions,” dated June 19, 2012. The inspectors answered “yes” to question 1 of External Events screening questions since the finding could potentially degrade one train of the emergency power system (a risk-significant system). Thus the inspectors consulted the regional Senior Risk Analyst (SRA).

The SRA performed a detailed risk evaluation using the Point Beach Standardized Plant Analysis Risk Model Version 8.22. For there to be a risk increase due to this deficiency there would have to be a LOOP coincident with a flood event that renders the G-02 EDG unavailable. The SRA performed a bounding analysis assuming that the flood event occurred coincident with a LOOP. The exposure time for the deficient condition was not more than 15-days.

Assuming a 15-day exposure time, the delta CDF was 9.3E-08/yr. The dominant sequence involved a transient initiating event with a consequential LOOP and station blackout. Based on the result of the detailed risk evaluation, the issue was of very low risk significance.

This finding has a cross-cutting aspect of Training (H.9) in the area of human performance, for failing to provide



training and ensure knowledge transfer to maintain a knowledgeable workforce. Specifically, the licensee did not ensure that personnel were knowledgeable of need to control material that could transport during an internal flooding event, restrict flood relief paths, and affect flood mitigation features.

Inspection Report# : [2014002](#) (*pdf*)

**Significance:**  Mar 06, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Take Corrective Actions to Address External Flooding Procedure Deficiencies**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," in that from March 13, 2013 until February 14, 2014, the licensee failed to assure that for a significant condition adverse to quality (SQAC), the cause of the condition was determined and corrective actions were taken to preclude repetition. Specifically, the licensee's corrective actions failed to preclude repetition of an SQAC where Procedure PC 80 Part 7, "Lake Water Level Determination," as implemented, would not protect safety-related equipment in the turbine building or Circulating Water Pump House (CWPH). After the licensee had taken corrective actions to improve the wave barrier procedure in response to an NRC-identified NOV, PC 80 Part 7 and other flood protection implementing procedures specified inadequate timelines to ensure wave

run-up flood barriers would be installed prior to the lake level at which wave run-up could impact the site. Corrective actions for this issue included changing the affected procedures to install the wave barriers at a lower lake level, changing the lake level determination surveillance from monthly to weekly, and reducing the allowed installation time for the barriers from 3 weeks to 1 week.

The performance deficiency was screened against the Reactor Oversight Process per the guidance of IMC 0612, Appendix B, and determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attributes of Protection Against External Factors (Flood Hazard) and 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 (i.e. core damage). Specifically, the licensee's failure to correct procedural deficiencies associated with flood barrier construction timelines, could challenge the timely installation of the barriers, which could impact the ability of mitigating systems to respond during an external flooding event. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A. Based on a review of Appendix A, Exhibit 2, Item 4.B, the inspectors determined that this issue screened as having very low safety significance (Green).

This finding has a cross-cutting aspect in the area of problem identification and resolution, because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. (P.2)

Inspection Report# : [2014007](#) (*pdf*)

**Significance:**  Mar 06, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Maintain External Flooding Procedure to Address All Possible CLB Floods**

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," in that from January 19, 1996 until November 25, 2013, the licensee failed to ensure that activities affecting quality were prescribed by documented procedures of a type appropriate to the circumstances to address external flooding as described in the Final Safety Analysis Report (FSAR). Specifically, PC 80 Part 7, "Lake Water Level Determination" directed advanced installation of concrete barriers to protect against deep wave action from the lake, which introduced significant unrecognized blockages in the natural drainage path credited in the FSAR to protect against the probable maximum precipitation and Turbine

Building internal flooding events. Corrective actions for this issue included changing the procedure and FSAR to include actions to provide an additional flood relief path through the CWPH building and reliance on internal flood relief dampers for the affected flooding events.

The performance deficiency was screened against the Reactor Oversight Process per the guidance of IMC 0612, Appendix B, and determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attributes of Protection Against External Factors (Flood Hazard) and 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 (i.e. core damage). Specifically, the licensee's failure to procedurally control external flooding design features to ensure they would not adversely affect the strategy for other flooding events, could negatively impact mitigating systems' ability to respond during external and internal flooding events. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A, and determined a detailed risk evaluation was required. Following a detailed risk evaluation, Region III SRAs determined that the finding had very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution, because the licensee failed to take effective corrective actions to address issues in a timely manner commensurate with their safety significance. (P.3)

Inspection Report# : [2014007](#) (*pdf*)

**Significance:**  Mar 06, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Perform a Required 10 CFR Part 50.59 Evaluation**

The inspectors identified a finding of very low safety significance and associated Severity Level IV, non-cited violation of 10 CFR 50.59(d)(1), "Changes, tests and experiments," when, on November 25, 2013, the licensee failed to perform an evaluation against the criteria in 10 CFR 50.59(c)(2) for a change to procedure PC 80 Part 7 to include actions to maintain functionality of drainage paths during probable maximum precipitation and turbine building flooding events. Specifically, PC 80 Part 7, "Lake Water Level Determination" was changed to include actions to open the CWPH rollup doors to provide an additional drainage path while wave barriers were in place, without fully evaluating the viability of reliance on additional flood features not credited for external flooding in the Current License Basis (CLB). Corrective actions for this issue included to updating the FSAR to describe the new flood paths, performing a 10 CFR 50.59 screening and 10 CFR 50.59 evaluation for the new drainage path which had put the site outside of the CLB, revising a related functionality assessment, controlling external flooding areas to ensure they are clear of debris, and creating a procedure to install curtains on the CWPH rollup doors during periods when they were required to be open.

The inspectors determined that the licensee's failure to fully evaluate the viability of newly created flooding drainage paths as required by 10 CFR 50.59(d)(1) was a performance deficiency. The inspectors evaluated the performance deficiency using traditional enforcement in conjunction with the SDP because the performance deficiency had the potential to impact the regulatory process. The performance deficiency was screened per the guidance of IMC 0612, Appendix B, and determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attributes of Protection Against External Factors (Flood Hazard) and 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 (i.e. core damage). Specifically, the licensee did not fully demonstrate that the availability, reliability, and capability of mitigating systems would be maintained during flooding events due to the site's failure to evaluate the viability of alternate flood drainage paths through the CWPH. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A. Based on a review of Appendix A, Exhibit 2, Item 4.B, the inspectors determined that this issue screened as having very low safety significance (Green). Additionally, in accordance with

Section 6.1.d.2 of the NRC Enforcement Policy, this violation is categorized as a Severity Level IV because the resulting conditions were evaluated as having very low safety significance (Green) by the SDP. This finding has a

cross-cutting aspect in the area of problem identification and resolution, because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. (P.2)

Inspection Report# : [2014007](#) (*pdf*)

**Significance:**  Mar 06, 2014

Identified By: NRC

Item Type: FIN Finding

**Failure to Perform a Required 10 CFR Part 50.59 Evaluation**

The inspectors identified a finding of very low safety significance and associated Severity Level IV, non-cited violation of 10 CFR 50.59(d)(1), “Changes, tests and experiments,” when, on November 25, 2013, the licensee failed to perform an evaluation against the criteria in 10 CFR 50.59(c)(2) for a change to procedure PC 80 Part 7 to include actions to maintain functionality of drainage paths during probable maximum precipitation and turbine building flooding events. Specifically, PC 80 Part 7, “Lake Water Level Determination” was changed to include actions to open the CWPH rollup doors to provide an additional drainage path while wave barriers were in place, without fully evaluating the viability of reliance on additional flood features not credited for external flooding in the Current License Basis (CLB). Corrective actions for this issue included to updating the FSAR to describe the new flood paths, performing a 10 CFR 50.59 screening and 10 CFR 50.59 evaluation for the new drainage path which had put the site outside of the CLB, revising a related functionality assessment, controlling external flooding areas to ensure they are clear of debris, and creating a procedure to install curtains on the CWPH rollup doors during periods when they were required to be open.

The inspectors determined that the licensee’s failure to fully evaluate the viability of newly created flooding drainage paths as required by 10 CFR 50.59(d)(1) was a performance deficiency. The inspectors evaluated the performance deficiency using traditional enforcement in conjunction with the SDP because the performance deficiency had the potential to impact the regulatory process. The performance deficiency was screened per the guidance of IMC 0612, Appendix B, and determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attributes of Protection Against External Factors (Flood Hazard) and 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 (i.e. core damage). Specifically, the licensee did not fully demonstrate that the availability, reliability, and capability of mitigating systems would be maintained during flooding events due to the site’s failure to evaluate the viability of alternate flood drainage paths through the CWPH. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A. Based on a review of Appendix A, Exhibit 2, Item 4.B, the inspectors determined that this issue screened as having very low safety significance (Green). Additionally, in accordance with

Section 6.1.d.2 of the NRC Enforcement Policy, this violation is categorized as a Severity Level IV because the resulting conditions were evaluated as having very low safety significance (Green) by the SDP.

Inspection Report# : [2014007](#) (*pdf*)

**Significance:**  Mar 06, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Establish EFR Attributes to Assess the Effectiveness of Corrective Actions**

The inspectors identified 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,” for the failure to ensure the effectiveness review attributes for a significant condition adverse to quality would ensure the corrective actions would eliminate or reduce the recurrence rate.

The inspectors determined that the licensee’s failure to establish effectiveness review criteria that would have



identified whether the corrective action to prevent recurrence (CAPRs) had effectively resolved the conditions was a performance deficiency warranting further review. The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, because it was affected the Mitigating Systems Cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. If left uncorrected, would the performance deficiency have the potential to lead to a more significant safety concern? The inspectors evaluated the finding using IMC 0609, Appendix A. The inspectors determined the finding was of very low safety significance (Green) because the finding was not a deficiency affecting the design or qualification of a mitigating structure, system or component and did not result in a loss of operability or functionality. In addition, the finding did not represent a loss of system or function, did not represent an actual loss of function of a least a single train for longer than its technical specification allowed outage time, and did not represent an actual loss of function of one or more nontechnical specification trains of equipment designated as high safety-significance. The finding had a cross cutting aspect in the area of problem identification and resolution, specifically resolution, because licensee personnel failed to ensure the corrective actions to prevent recurrence had effective attributes. (P.2) Inspection Report# : [2014007](#) (pdf)

**Significance:** **G** Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Maintenance and Test Equipment Procedure**

The inspectors identified 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," for the licensee's failure to follow procedure NP 8.7.1, "Measurement and Test Equipment [M&TE]." Specifically, the inspectors identified multiple examples where the licensee did not document the withdrawal and use of M&TE in either the M&TE usage log or its electronic equivalent. This issue was entered into the licensee's corrective action program (CAP) as action request (AR) 01925171.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. Specifically, without accurate M&TE usage logs the licensee may not evaluate all past surveillances affected by failed M&TE, potentially resulting in a failed TS surveillance going undetected. The inspectors determined that the finding was associated with the Mitigating Systems Cornerstone, because not evaluating the prior use of inaccurate M&TE could permit equipment required to mitigate the consequences of the accident to not perform its design and licensing basis functions when called upon. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. The inspectors concluded that the finding was of very low safety significance (Green), because the inspectors answered "No" to the Mitigating Systems screening questions. The inspectors concluded that this finding has a cross-cutting aspect in the area of human performance, decision making, because the licensee failed to effectively communicate the station expectations related to changes in responsibilities for implementing NP 8.7.1. Inspection Report# : [2013005](#) (pdf)

**Significance:** **W** Mar 31, 2013

Identified By: NRC

Item Type: VIO Violation

#### **Failure to Establish an Adequate Procedure to Implement Wave Run-Up Design Features**

A WHITE finding and a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors in that from January 19, 1996 until March 13, 2013, the licensee failed to have a procedure appropriate to the circumstances to address external flooding as described in the Final Safety

Analysis Report (FSAR.) Specifically, Procedure PC 80 Part 7, as implemented, would not protect safety-related equipment in the turbine building or pumphouse because the procedure (1) did not appropriately prescribe the installation of barriers such that gaps in or between the barriers were eliminated to prevent water intrusion, (2) did not protect equipment by requiring barriers to be placed in front of the doors, from 1996 to 2008, as described in the FSAR, and (3) did not require the barriers to protect the plant to an elevation of at least 9 feet (589 foot elevation) as described in the FSAR.

The performance deficiency was screened against the Reactor Oversight Process per the guidance of IMC 0612, Appendix B, and determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attributes of Protection Against External Factors (Flood Hazard) and 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 (i.e. core damage). Specifically, the licensee's failure to procedurally control and maintain external flooding design features and to provide procedural controls for external events could negatively impact mitigating systems' ability to respond to an external flooding event. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A, and determined a detailed risk evaluation was needed. This finding does not present an immediate safety concern, in that, the licensee has taken corrective action and revised procedures implementing wave run-up protection features. Specifically, the licensee's procedure has been revised to direct the installation of jersey barriers in conjunction with the use of sandbags, existing jersey barriers have been modified, and sandbags and additional jersey barriers have been purchased and pre-staged. These issues are being characterized as an apparent violation in accordance with the NRC's Enforcement Policy, with its final significance to be dispositioned in separate future correspondence. This finding has a cross cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee failed to thoroughly evaluate problems such that the resolutions address causes and extent of conditions [P.1 (c)].

Inspection Report# : [2013002](#) (pdf)

Inspection Report# : [2013011](#) (pdf)

Inspection Report# : [2013012](#) (pdf)

Inspection Report# : [2014007](#) (pdf)

## Barrier Integrity

**Significance:**  Sep 30, 2014

Identified By: NRC

Item Type: FIN Finding

### Deficiencies in Calculation Performed to Support Containment Dome Truss Operability

The inspectors identified a finding of very low safety significance for deficiencies in licensee's calculation performed to support operability of the unit 1 containment building dome truss and the safety related components supported from the truss. The licensee reassessed the dome truss members and connections that were found to be highly stressed and concluded that the components remained within the acceptable limits. The licensee initiated AR 01986069 to capture the concern identified by the inspectors and revised the POD.

The finding was determined to be more than minor because the finding is associated with the RCS Equipment and Barrier Performance Attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, failure of the dome truss could impact the reliability/availability of the containment spray system to maintain operability of the containment. Additionally, More than Minor Example 3.j of IMC 0612, Appendix E, "Examples of Minor Issues," was used to

inform the answer to this more than minor screening question. Specifically, the licensee's failure to address torsional effects and use of non conservative allowable stress values for evaluation of containment dome truss components, at the time of discovery, resulted in reasonable doubt of the operability of the subject walls. In accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings," Table 2, the inspectors determined the finding affected the Barrier Integrity cornerstone. As a result, the inspectors determined the finding could be evaluated using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 3. Because the finding did not represent an actual failure of a component required to maintain containment integrity, the inspectors answered "no" to Screening Questions 1 and 2 for the Reactor Containment section, and determined the finding was of very low safety significance. This finding has a cross cutting aspect of Conservative Bias (H.14) in the area of human performance for the licensee's failure to use conservative decision making practices in the operability evaluation of the containment dome truss.

Inspection Report# : [2014004](#) (pdf)

**Significance:**  Dec 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Failure to Provide Adequate Work Instructions**

A self-revealed finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, occurred when a surveillance procedure was performed with several steps marked not applicable which resulted in Unit 1 power rising over the license limit. Specifically, when the Unit 1 turbine driven auxiliary feedwater pump was operated as part of a post maintenance test, the discharge isolation valves remained open which resulted in a small unplanned positive reactivity change. This issue was entered into the licensee's CAP as AR 01920721.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure of the control room operators to respond promptly could have led to the final reactor power being higher than during this issue. The inspectors determined that the finding was associated with the Initiating Events Cornerstone, specifically the configuration control attribute of operating equipment lineup. The inspectors determined that the finding could be evaluated using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Appendix A, "The Significance Determination Process for Findings At Power," Exhibit 1, "Initiating Events Screening Questions." The finding was determined to be of very low safety significance (Green) because the inadequate work instructions did not result in a reactor trip. The inspectors determined that the finding had a cross-cutting aspect in the area of human performance, work control, planning, because a human performance error was made during the planning process in an effort to reduce the work load during the test, and due to a cognitive error, the post maintenance test was made inadequate. Specifically, steps were marked non-applicable that would have placed the pump discharge valves in their required position for the next portion of the surveillance test.

Inspection Report# : [2013005](#) (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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### 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

Last modified : November 26, 2014