

Point Beach 1 1Q/2013 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Properly Implement a Compensatory Fire Watch As Required by the Fire Protection Program

A finding of very low safety significance and an associated non-cited violation (NCV) of Technical Specification (TS) 5.4.1.h, "Fire Protection Implementation," for Units 1 and 2, was identified by the inspectors for the licensee's failure to implement compensatory fire watches for multiple fire zones in the plant auxiliary building, in accordance with the fire protection program requirements. Specifically, the licensee failed to implement the guidelines for compensatory fire watches as described in Operations Manual (OM) 3.27, "Control of Fire Protection and Appendix R Safe Shutdown Equipment" for the affected fire zones. The issue was entered into the licensee's corrective action program (CAP) as AR01855430.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, because it was associated with the Initiating Events Cornerstone attribute of Protection Against External Factors (Fire) and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during plant operations. The inspectors evaluated the finding using IMC 0609, Appendix F, because the finding degraded the ability to adequately implement fire prevention and administrative controls affecting the ability to reach and maintain safe shutdown capabilities. A Region III (RIII) Senior Reactor Analyst (SRA) performed a modified Phase 2 evaluation and determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to define and effectively communicate expectations regarding procedural compliance and personnel did not follow procedures (H.4(b)). Specifically, the expectation for procedural compliance, for when the fire zones become high radiation areas requires that fire rounds are to be performed by Operations instead of security.

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

Significance:  Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Unauthorized Transient Combustibles

The inspectors identified a finding of very low safety significance and associated non-cited violation of Technical Specification 5.4.1.h for Units 1 and 2 for the licensee's failure to control transient combustible materials in accordance with the fire protection program requirements. Specifically, the licensee failed to implement the guidelines specified in Procedure NP 1.9.9, "Transient Combustible Control," when they installed an energized extension cord (combustible material) for temporary lighting in a combustible exclusion area located in fire zone 151. Upon discovery, the licensee relocated the extension cord and placed the issue into their corrective action program as action request AR01811414.

The inspectors determined that this finding was more than minor in accordance in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Initiating Events cornerstone attribute of Protection Against External Factors (Fire) and adversely affected the cornerstone objective of

limiting the likelihood of those events that upset plant stability and challenge critical safety functions during plant operations. Specifically, the inspectors determined that the routing of the energized extension cord in the CS pumps area could potentially affect both redundant trains of the charging pumps located in the area; and that the transient combustible materials were routed in a combustible free zone required for separation of redundant trains because the extension cord was installed in a combustible free zone separating redundant trains required for safe shutdown. The inspectors evaluated the finding using IMC 0612, Appendix E, "Example of Minor Issues," dated August 11, 2009, and found that it was similar to Example 4.k. This finding was of very low safety significance because the installation of the extension cord represented a low degradation against the combustible controls program. The finding has a cross-cutting aspect in the area of human performance, work control, because the licensee failed to coordinate the approval of a transient combustible control form with the fire protection engineer prior to routing the extension cord thru the containment spray pumps area. (H.3(b))

Inspection Report# : [2012005](#) (*pdf*)

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: FIN Finding

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

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

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

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

Significance:  Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

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

A finding of very low safety significance and associated non-cited violation of 10 CFR 50.65(a)(3) was self-revealed when an unplanned reactor trip of Unit 2 occurred on June 13, 2011, as a result of the failure of a source range detector during low power physics testing. Specifically, the licensee failed to adequately evaluate operating

experience and incorporate it into its preventive maintenance program to periodically replace aging electrical subcomponents in nuclear instrumentation systems and a subsequent age related failure resulted in initiating a plant transient. The licensee entered this issue into the corrective action program, and corrective actions to prevent recurrence were initiated.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance. Specifically, the availability and reliability of the nuclear instruments was degraded to a point where an instrument failure caused a reactor trip, an event that adversely impacted the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding has a cross-cutting aspect in the area of corrective action program, evaluation/extent of condition. Specifically, the licensee failed to thoroughly evaluate related nuclear instrument failure rates so that the resolutions addressed the causes and extent of conditions for age-related failures of electrical subcomponents. (Section 40A3.4)

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

Mitigating Systems

Significance:  Mar 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Establish Adequate Procedures to Respond to Probable Maximum Precipitation Event

A finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to establish an abnormal operating procedure (AOP) to respond to a flooding event and for failure to establish procedures for control and maintenance of external flooding design features for the probable maximum precipitation event as described in the FSAR. The issue was entered into the licensee's CAP as AR01856322 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, because it 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). The inspectors evaluated the finding using IMC 0609, Appendix A, Exhibit 2, for the Mitigating Systems Cornerstone, and determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, resources, because the licensee failed to maintain long term plant safety by maintenance of the external flooding design features (H.2(a)). Specifically, in the recent past, the licensee inappropriately cancelled the preventive maintenance associated with the ditches and storm drains following the completion of the drainage system study in June 2010.

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

Significance: N/A Mar 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Submit LER 05000266/2012-003-00, "2B-04 Safeguards 480V Bus De-Energized," Within 60 Days

A Severity Level IV (SL-IV) non-cited violation (NCV) of 10 CFR 50.73(a)(1), "Licensee Event Report (LER) System," with an underlying Green issue was identified for the licensee's failure to submit an LER in accordance with

10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v)(D) within 60 days for a valid loss of safety related electrical bus 2B-04, "Unit 2 480V Safeguards Bus." This issue was entered into the licensee's CAP as AR01851639 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, because, if left uncorrected, it would have the potential to lead to a more significant safety concern, since untimely reporting of issues hinders the inspectors' ability to perform timely and adequate regulatory reviews of the cause and underlying issues. Specifically, the inspectors determined that the issue was considered as traditional enforcement because it had the potential for impacting the NRC's ability to perform regulatory functions and constituted an SL-IV NCV, consistent with the examples contained in Section 6.9 of the Enforcement Policy. The inspectors reviewed the underlying issue associated with the mitigating systems cornerstone and determined that the finding has a cross-cutting aspect in the area of problem identification and resolution, evaluation, because the licensee failed to thoroughly evaluate the problem such that the resolutions properly addressed operability and reportability. (P.1(c))
Inspection Report# : [2013002](#) (pdf)

Significance: TBD Mar 31, 2013

Identified By: NRC

Item Type: AV Apparent Violation

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

(To Be Determined): A finding and an apparent violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's lack of procedural requirements to appropriately implement external flooding wave run-up protection design features as described in the FSAR. The issue was entered into the licensee's CAP as AR01856327 for evaluation and development of corrective actions.

The performance deficiency was screened against the Reactor Oversight Process (ROP) 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 appropriately procedurally control and maintain external flooding design features and provide appropriate procedural responses to 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, and its final significance will 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)

Significance:  Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure To Update The Fire Emergency Plan

The inspectors identified a finding of very low safety significance and associated non-cited violation of the Point Beach Nuclear Plant Renewed Facility Operating License, because the licensee failed to include electrical and physical hazards, which were installed as a result of the extended power uprate modification, in the Fire Emergency

Plan (FEP). Specifically, this failure could have adversely impacted the fire brigade's ability to fight a fire in fire zones 304N and 304S. The issue was entered into the licensee's corrective action program as action request AR01833683 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to include electrical and physical hazards in FEP 4.12, which were installed as a result of the extended power uprate modification, could have adversely impacted the fire brigade's ability to fight a fire in fire zones 304N and 304S. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, and Appendix A, "The Significance Determination Process (SDP) for Findings At Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Appendix A, Exhibit 2.B question for external event mitigating systems (Seismic/Fire/Flood/Severe Weather Protection Degraded). Therefore, inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, work control, because the licensee failed to coordinate the work activities associated with the extended power uprate modification such that the impact of the modification was evaluated against all applicable programs, including fire protection, consistent with nuclear safety. (H.3(a))

Inspection Report# : [2012005](#) (pdf)

Significance: G Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Scoping Of A Non-Safety-Related System Into The Maintenance Rule

- The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 50.65(b)(2)(i), because the licensee failed to adequately scope a non-safety-related component relied upon to mitigate accidents or transients. Specifically, the licensee failed to include the non-safety-related electrohydraulic control system over pressure delta temperature (OP?T) and over temperature delta temperature (OT?T) automatic runback features, as part of their maintenance effectiveness monitoring program. The issue was entered into the licensee's corrective action program as action request AR01804588 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of 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, failure to monitor the performance or condition of the electrohydraulic control system could impact the ability of the system to initiate a runback and respond to an event in the desired manner. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, and Appendix A, "The Significance Determination Process (SDP) for Findings At Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Appendix A, Exhibit 1 questions for mitigating structures, systems, and components, and functionality. Therefore, inspectors determined the finding to be of very low safety significance. The inspectors determined that since the scoping of the systems had occurred more than two years in the past, and the opportunity to reevaluate system scoping had not occurred recently, that the finding did not represent current plant performance, and therefore did not have a cross-cutting aspect associated with it.

Inspection Report# : [2012005](#) (pdf)

Significance: W Oct 29, 2012

Identified By: NRC

Item Type: VIO Violation

Failure To Have Adequate Work Instructions And Procedures For Work Performed On The Turbine-Driven Auxiliary Feedwater Pump

A finding of low to moderate safety significance and an associated Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed, in that, on November 8, 2011, the licensee failed to ensure that the work performed on the safety-related turbine for the TDAFW pump 1P-29 via Work Order (WO) 40101094 and routine maintenance procedure RMP 9044-1, an activity affecting quality, was prescribed by documented instructions or procedures of a type appropriate to the circumstances. As a result on May 21, 2012, approximately 70 minutes after the start of the second quarterly Technical Specification (TS) required surveillance test since the November 2011 maintenance, 1P-29 was shut down following failure of the turbine to pump coupling. This issue was documented in the licensee's corrective action program (CAP) as action request (AR) 01768931 and the licensee performed a root cause evaluation. As a remedial corrective action, on May 23, 2012, the licensee performed corrective maintenance to repair the failed coupling and address the turbine to pump alignment issue, and 1P-29 was subsequently returned to service. In addition, on June 20, 2012, the licensee implemented a permanent modification to the turbine exhaust steam piping by installing a wedge between the exhaust pipe flange and the turbine exhaust flange to eliminate stresses on the turbine. At the end of the inspection period, the licensee had implemented corrective actions to address the WO and procedure deficiencies to prevent a future occurrence and continued to implement additional long-term corrective actions.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. 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 (SDP) for Findings At Power," Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. The finding involved an actual loss of function of a single train of auxiliary feedwater (AFW) for greater than the TS allowed outage time and required a detailed risk evaluation. The Region III Senior Reactor Analyst (SRA) performed a detailed risk evaluation of the finding and concluded the total delta core damage frequency (?CDF) was $8.7E-6$ /year, which represents a finding of low to moderate safety significance (White). The dominant core damage sequence involved an unsuppressed fire in the control room or cable spreading room, followed by failure of alternate shutdown and failure to recover the AFW function. The inspectors also determined this finding had a cross cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee failed to implement a corrective action program with a low threshold for identifying issues completely, accurately, and within a timely manner commensurate with their safety significance (P.1(a)). Specifically, during the maintenance that occurred on the TDAFW 1P-29 turbine during November 2011, several conditions adverse to quality were encountered during the actual maintenance activity; however, condition reports were not written to address the issues.

Opened in Inspection Report 2012009.

Inspection Report# : [2012010](#) (*pdf*)

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure To Implement Risk Management Actions During Various Emergent Work Activities

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR 50.65 (a)(4) because the licensee failed to properly manage and assess risk for various emergent work activities. Specifically, the licensee failed to manage the risk associated with the gas turbine generator (G-05) failure out of

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

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

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

Significance: G Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Weld Design Deficiency In Emergency Diesel Generator Missile Protection Barriers

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

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," and Appendix E, "Example of Minor Issues," dated August 11, 2009, and found that it was similar to Example 3a and it was associated with the Mitigating Systems Cornerstone attribute of Design Control and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to ensure supervisory oversight of the contractor activities to support nuclear safety. Specifically, in the examples noted, the licensee failed to adequately review the calculation performed by the contractor to verify that the assumptions and engineering judgments were adequately justified and consistent with the installation (H.4(c)).

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

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

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

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

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the inspectors determined that the failure to update EOPs to implement Revision 2 of the WOG ERGs significantly beyond the current industry standard of two years would result in a delay when terminating Primary To Secondary Leakage during a steam generator tube rupture event. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, dated June 19, 2012, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance, resources, because the licensee failed to assure resources were available and adequate to complete the WOG ERG, Revision 2 EOP updates in a timely manner commensurate with risk and safety (H.2(c)).

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

Significance:  Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure To Establish Emergency Diesel Generator Ventilation System Testing

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

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

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

Barrier Integrity

Significance:  Mar 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Response for Loss of Spent Fuel Pool Cooling Did Not Consider the Most Limited Time to Boil

A finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified by the inspectors for the licensee's failure to account for the most limiting spent fuel pool (SFP) time to boil in calculations and procedures. Specifically, the service water design-basis analysis and abnormal operating procedure (AOP) for loss of SFP cooling used a time to boil value based on non-limiting conditions. The issue was entered into the licensee's CAP as AR01852528 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, because it was associated with the Barrier Integrity Cornerstone, in that, if left uncorrected, it would have lead to a more significant safety concern. The inspectors evaluated the finding using IMC 0609, Appendix A, Exhibit 3, for the Barrier Integrity Cornerstone, and determined the significance of this finding could be evaluated using qualitative criteria in accordance with IMC 0609, Appendix M. With consultation of an RIII SRA, the inspectors determined the finding screened as of very low safety significance because it involved a design-basis event (e.g., loss of cooling accident (LOCA)) on one unit occurring during a short window of time when the SFP is subjected to the maximum allowed heat load shortly after the other unit is defueled. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not confirmed to reflect current performance due to the age of the performance deficiency.

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

Significance:  Mar 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Operability Evaluation Process for a Degraded Containment Liner

A finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors when the licensee failed to perform a prompt operability evaluation as required by station procedures. Specifically, procedure PI AA 205, "Condition Evaluation and Corrective Action," required that a prompt operability evaluation be performed when equipment was determined to be operable but degraded. Had this evaluation been performed, the licensee would have recognized that information did not exist to support operability of the containment liner. The issue was entered into the licensee's CAP as AR01851688 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, because it was associated with the Barrier Integrity Cornerstone attribute of reactor coolant system (RCS) equipment and barrier performance, and adversely affected the Cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, Appendix A, Exhibit 3, which indicated that a Phase 2 analysis was required per Appendix H. The inspectors and the Region III SRA performed a Phase 2 evaluation using IMC 0609, Appendix H, Table 6.2, and concluded, based on the small size of the hole in the SW piping, that leakage from the containment to the environment would not be greater than 100 percent containment volume per day; therefore, the issue screened as being of very low safety significance. The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, low threshold, because the licensee failed to thoroughly evaluate the breach in

the SW system (P.1(a)). Specifically, the lack of a CR that completely and accurately evaluated the hole in the SW system resulted in an unrecognized and unevaluated breach in a system that was considered an extension of the containment.

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

Significance: **G** Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedural Guidance For Heavy Loads Operations

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

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

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

Emergency Preparedness

Significance: **W** Apr 20, 2012

Identified By: NRC

Item Type: VIO Violation

Protective Action Recommendation Weakness

An NRC identified finding with a preliminary low to moderate safety significance and one associated apparent violation of 10 CFR 50.47(b)(10) for failure to develop and put into place guidelines for the choice of protective actions during an emergency that were consistent with Federal guidance. Federal guidance for the choice of protective actions during an emergency is described in EPA 400 R 92 001, and states, in part, that withdrawal of protective actions from areas where they have already been implemented is usually not advisable during the early phase because of the potential for confusion and possibly impede implementation of protective actions which could place the public at additional risk. Additionally, Federal guidance described in NUREG 0654/FEMA REP 1, Supplement 3, states, in part, licensees should not relax protective actions until the source of the threat is under control. In the case of a known

impediment to evacuation, the licensee's emergency implementing procedure, EPIP 1.3, "Dose Assessment and Protective Action Recommendations," incorrectly directed key decision makers to withdraw protective actions to evacuate the public and replace it with a recommendation to shelter the public. After the NRC identified the finding, the licensee immediately revised its emergency implementing procedure to be consistent with Federal guidance.

This finding is more than minor because it affected the Emergency Preparedness Cornerstone objective of implementing adequate measures to protect the health and safety of the public during a radiological emergency, and is associated with the cornerstone attributes of emergency response organization performance and procedure quality. Specifically, the withdrawal of implemented protective actions could cause confusion of offsite authorities and the public. The inspectors evaluated the finding using the SDP and determined this finding screened as preliminarily White. The finding has a cross cutting aspect in the area of Human Performance, Resources, because the licensee failed to maintain complete, accurate, and up to date procedures as early as 2003 when the licensee returned sheltering to its range of protective action recommendation emergency plans and procedures.

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

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

Inspection Report# : [2013503](#) (*pdf*)

Occupational Radiation Safety

Significance:  Mar 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Survey for Neutron Dose from Source Storage

A finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR 20.1501 was self-revealed when the licensee failed to evaluate dose to personnel from neutron radiation. Specifically, on September 5, 2012, it was self revealed to the licensee that unevaluated neutron dose was present in an office area located outside the Radiologically Controlled Area (RCA) due to a source storage room housing a neutron source. This issue was entered into the licensee's CAP as AR01809560. Corrective actions included moving the neutron source into the RCA, performing a condition evaluation, and performing dose estimates to various plant personnel.

The finding was determined to be more than minor in accordance with IMC 0612, Appendix B, because the finding was associated with the Occupational and Public Radiation Safety Cornerstones and adversely affected the cornerstones objective. The inspectors evaluated the finding using IMC 0609, Appendix D, for the Public Radiation Safety Cornerstone, and determined the finding to be of very low safety significance. The finding had a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to ensure supervisory and management oversight of work activities such that nuclear safety is supported (H.4(c)). Specifically, the licensee did not provide supervisory oversight to ensure that the survey program was sufficient to ensure compliance with 10 CFR Part 20 requirements.

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

Significance:  Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure To Implement And Maintain Procedures Regarding Breathing Air Quality

The inspectors identified a finding of very low safety significance (Green) and associated non-cited violation of 10

CFR 20.1703 for the failure to implement and maintain written procedures regarding breathing air quality which resulted in the failure to perform breathing air quality tests since December 2011. This issue was entered into the licensee's corrective action program (CAP) as AR01821842. An air quality test was subsequently performed resulting in grade "D" or better air and a review of past air compressor maintenance was performed to provide adequate assurance that breathing air met the grade "D" requirements since the last test in December 2011. The licensee has also made necessary procedural changes to ensure air quality tests are performed on a quarterly basis.

The performance deficiency was determined to be of more than minor safety significance in accordance with IMC 0612, Appendix B, "Issue Screening," because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, continued failure to test for breathing air quality could have resulted in unbreathable air being introduced into the licensee's SCBAs and control room emergency breathing air system. The inspectors also reviewed the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," and did not find any similar examples. In accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspectors determined that the finding had very low safety significance (Green) because the finding did not involve: (1) ALARA planning and controls, (2) a radiological overexposure, (3) a substantial potential for an overexposure, or (4) a compromised ability to assess dose. The primary cause of this finding was related to the cross-cutting aspect of human performance with the component of decision making in that the licensee communicates decisions and the basis for decisions to personnel who have a need to know the information in order to perform the work safely, in a timely manner. (H.1(c))

Inspection Report# : [2012005](#) (pdf)

G

Significance: Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

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

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

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

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

Public Radiation Safety

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.

Miscellaneous

Significance: N/A Mar 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Update the External Flooding Mitigation Features in the FSAR

An SL-IV NCV of 10 CFR Part 50.71(e), "Maintenance of Records, Making of Reports," was identified by the inspectors for the licensee's failure to comply with the requirements to periodically update the FSAR to include an accurate description of the flooding design and credited mitigation features for the site as a result of a modification made to the plant. The issue was entered into the licensee's CAP as AR01819241 for evaluation and development of corrective actions.

The inspectors used IMC 0612, Appendix B, and determined the performance deficiency could be dispositioned using traditional enforcement. Specifically, the inspectors determined that the issue was considered for traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. The inspectors concluded that the finding is more than minor because, if left uncorrected, this could lead to a more significant safety concern because future changes to the facility, procedures, and programs would not consider the licensing basis information that was removed or never inserted. The finding was determined to be an SL IV violation using Section 6.1 of the NRC's Enforcement Policy because the inaccurate information was not used to make an unacceptable change to the facility or procedures. Since this performance deficiency was dispositioned using traditional enforcement, there is no cross-cutting aspect assigned.

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

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Manager Working Outage Hours Contrary To Guidance

The inspectors identified a Severity Level IV non-cited violation and associated finding of very low safety significance of 10 CFR 26.207(a), "Waivers," for the licensee's failure to perform multiple activities as required when licensed reactor operators in the shift manager (SM) position worked outage hours during the Unit 1 outage in fall 2011. Specifically, for each circumstance where an SM exceeded operating hours, the licensee did not meet the

following requirements: a determination that the waiver is necessary to mitigate or prevent a condition adverse to safety; a face to face assessment of the individual to determine that there was reasonable assurance that the individual would be able to safely and competently perform his or her duties during the additional work period for which the waiver will be granted; and a circumstance did not exist that could not have been reasonably controlled because additional personnel could have been added to the shift to perform the related outage activities. The issue was entered into the licensee's corrective action program for resolution as action request AR01797782, for evaluation and development of corrective actions.

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

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

Significance: N/A Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

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

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

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

accordance with Section 2.2 of the NRC Enforcement Policy, ISFSIs are not subject to the SDP and, thus, traditional enforcement will be used for these facilities and thus a cross-cutting aspect is not assigned to this violation.

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

Last modified : June 04, 2013