

# UNITED STATES NUCLEAR REGULATORY COMMISSION REGION III

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May 13, 2013

Mr. Larry Meyer Site Vice President NextEra Energy Point Beach, LLC 6610 Nuclear Road Two Rivers, WI 54241

# SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 05000266/2013002 AND 05000301/2013002

Dear Mr. Meyer:

On March 31, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Point Beach Nuclear Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on April 4, 2013, with members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The enclosed inspection report documents a finding and associated apparent violation whose significance has not been determined. As described in Section 4OA5, an apparent violation 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 Final Safety Analysis Report. The finding does not present an immediate safety concern because the licensee has taken corrective action and revised the procedure to implement the 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. Since the NRC has not made a final determination in this matter, no violation is being issued for this inspection finding at this time. In addition, please be advised that the characterization may change as a result of further NRC review. The final resolution of this finding will be conveyed in separate correspondence

Additionally, five NRC-identified findings and two self-revealed findings of very low safety significance (Green) were identified during this inspection. These findings were determined to involve violations of NRC requirements. Additionally, the NRC has determined that two traditional enforcement Severity Level IV violations occurred. Also, a licensee-identified violation, which was determined to be of very low safety significance, is listed in Section 40A7

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of this report. The NRC is treating these violations as non-cited violations (NCVs), consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Point Beach Nuclear Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III; and the NRC Resident Inspector at Point Beach Nuclear Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA/

Jamnes L. Cameron, Chief Branch 6 Division of Reactor Projects

Docket Nos. 50-266; 50-301 License Nos. DPR-24; DPR-27

Enclosure: Inspection Report 05000266/2013002; 05000301/2013002; w/Attachment: Supplemental Information

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# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION III**

Docket Nos:	05000266; 05000301
License Nos:	DPR-24; DPR-27
Report No:	05000266/2013002; 05000301/2013002
Licensee:	NextEra Energy Point Beach, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	Two Rivers, WI
Dates:	January 1, 2013, through March 31, 2013
Inspectors:	<ul> <li>S. Burton, Senior Resident Inspector</li> <li>M. Thorpe-Kavanaugh, Resident Inspector</li> <li>V. Myers, Health Physicist</li> <li>P. Smagacz, Reactor Engineer</li> <li>R. Winter, Reactor Engineer</li> <li>N. Féliz Adorno, Reactor Engineer</li> <li>M. Jones, Reactor Engineer</li> </ul>
Approved by:	Jamnes L. Cameron, Chief Branch 6 Division of Reactor Projects

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# SUMMARY OF FINDINGS

Inspection Report (IR) 05000266/2013002, 05000301/2013002; 01/01/2013 – 03/31/2013; Point Beach Nuclear Plant, Units 1 and 2; Fire Protection, Heat Sink Performance, Occupational Dose Assessment, Identification and Resolution of Problems, Follow-Up of Events and Notices of Enforcement Discretion, and Other Activities.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Seven findings were identified by the inspectors, and two findings were self-revealed. The findings were considered non-cited violations (NCVs) of NRC regulations. Additionally, the inspectors identified one finding, which significance has not yet been determined. The significance of inspection findings are indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Components Within the Cross Cutting Areas," dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated January 28, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process" Revision 4, dated December 2006.

# A. <u>NRC-Identified and Self-Revealed Findings</u>

# **Cornerstone: Initiating Events**

 <u>Green</u>. A finding of very low safety significance and an associated non-citied violation 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 be performed by Operations instead of security. (Section 1R05)

#### **Cornerstone: Mitigating Systems**

• <u>Green</u>. A finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to 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. (Section 1R01.3)

Green. A finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when the supply breaker to safety-related bus 2B04 tripped prematurely. Specifically, on June 6, 2011, when energizing pressurizer heaters, the feeder breaker to safety-related 480 volt bus, 2B04, opened due to an over-current condition; and it was later determined that the setpoint for the breaker was incorrectly set at 2000 amps versus 3000 amps as required. The issue was entered into the licensee's CAP as AR01657810. The trip setpoint on the breaker was immediately corrected, and this action restored compliance with the design requirements. Additional corrective actions were initiated to revise the maintenance procedure to list the task as a high risk activity and to add a verification step relative to the set point adjustments.

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 attribute of Human 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. The inspectors evaluated the finding using IMC 0609, Appendix A, Exhibit 2, and determined a detailed risk analysis was needed. A RIII SRA performed the detailed risk 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, human error prevention techniques, because the licensee failed to implement peer-checking techniques commensurate with the safety significance of the task (H.4(a)). Specifically, a peer check was not used to validate that the safety-related trip setpoint of the bus 2B04 supply breaker was accurately set; had it been used, the peer check could have prevented the occurrence. (Section 4OA2.4) Severity Level IV. A Severity Level IV (SL-IV) non-cited violation 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 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 a 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)). (Section 4OA3.1)

Green: A finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," was identified by the inspectors for the licensee's failure to incorporate a design-basis drift calculation and appropriate tolerances for calibrating the Engineered Safety Features Actuation System steam line pressure dynamic compensation modules into a calibration procedure used to assure TS requirements. The issue was entered into the licensee's CAP as AR01629378.

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 attribute of Design Control, and adversely impacted 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, Appendix A, Exhibit 2, for the Mitigating Systems Cornerstone, and determined the finding to be of very low safety significance. The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee failed to take corrective action in a timely manner for the issue identified in previous licensee event report LER 266/2010-001-00 and the associated apparent cause evaluation (P.1(d)). (Section 4OA3.2)

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, Enclosure

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)). (Section 40A5.2(1))

#### **Cornerstone: Barrier Integrity**

• <u>Green</u>. A finding of very low safety significance and an associated non-cited violation 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 led 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 did not reflect current performance due to the age of the performance deficiency. (Section 1R07.2)

 <u>Green</u>. A finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors 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 RIII 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. (Section 4OA2.5)

# **Cornerstone: Public Radiation Safety**

 <u>Green</u>. A finding of very low safety significance and an associated non-citied of violation 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. (Section 2RS4.1)

# **Cornerstone: Other Findings**

 <u>Severity Level IV</u>. A SL-IV non-cited violation 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 a 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. (Section 4OA5.2(2))

# B. <u>Licensee-Identified Violations</u>

A violation of very low significance was identified by the licensee has been reviewed by the inspectors. Corrective actions planned or taken by the licensee have been entered into the licensee's CAP. This violation and related corrective action tracking numbers are listed in Section 40A7 of this report.

# **REPORT DETAILS**

# **Summary of Plant Status**

Units 1 and 2 began the inspection period operating at full power. Throughout the inspection period plant operators performed several small power maneuvers (i.e., power reductions of 10 percent power or less) to facilitate planned testing and maintenance of certain equipment and components with the following exceptions.

On January 21, 2013, Unit 2 power was reduced to approximately 82 percent for several hours to repair excessive air leakage on a crossover steam dump solenoid valve.

On March 17, 2013, Unit 1 reduced power and the unit was taken off-line shortly after midnight for refueling outage (RFO) U1R34. Unit 1 remained off-line for the remainder of the inspection period.

# 1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

- 1R01 Adverse Weather Protection (71111.01)
  - .1 External Flooding
    - a. Inspection Scope

The inspectors evaluated the design, material condition, and procedures for coping with the design-basis probable maximum flood. The evaluation included a review to check for deviations from the descriptions provided in the Final Safety Analysis Report (FSAR) for features intended to mitigate the potential for flooding from external factors. Additionally, the inspectors performed a walkdown of the protected area to identify any modification to the site which would inhibit site drainage during a probable maximum precipitation event or allow water ingress past a barrier. The inspectors also walked down underground bunkers/manholes subject to flooding that contained multiple train or multiple function risk-significant cables. The inspectors also reviewed the AOP for mitigating the design-basis flood to ensure it could be implemented as written. Specific documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one external flooding sample as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

#### Potential Flooding Event – Impact of Loose Items Found on Roof Tops

<u>Introduction</u>: During the inspectors' external flooding sample, the inspectors identified an Unresolved Item (URI) associated with a potential flooding event caused by loose items found by inspectors on roof tops.

<u>Description</u>: As part of this evaluation, the inspectors checked for obstructions that could impact the ability of various installed drain systems to function as designed.

During the inspectors' walkdown and inspection of building roofs, the inspectors found loose items on the turbine building and façade roofs. Specifically, the inspectors identified several large mats, pieces of metal equipment, loose scaffolding, piping, ladders, and other miscellaneous items. The inspectors were concerned that the loose items could clog various drains in the event of heavy precipitation and cause a flooding concern. The licensee initiated condition report (CR) AR01855615 in response to the inspectors' concerns.

At the completion of the first quarter inspection period, the licensee's review in response to the inspectors concerns regarding the obvious loose items was under evaluation. The inspectors determined that this was an issue of concern in which more information was needed to determine whether a performance deficiency exists. Specifically, the review of the licensee's evaluation of the condition was needed to determine whether barriers required to mitigate flooding were in place and functional as a result of the loose items identified. The issue is unresolved pending review of the licensee's evaluation (URI 05000266/2013002-01, 05000301/2013002-01, Flooding Impact of Loose Items Found on Roof Tops).

- .2 <u>Readiness for Impending Adverse Weather Condition Extreme Cold and Frazil Ice</u> <u>Conditions</u>
- a. Inspection Scope

Since extreme cold conditions were forecast in the vicinity of the facility for January 2, 2013, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. Due to frazil icing concerns and extreme low temperatures, the inspectors walked down the intake structure, forebay, traveling screens, and circulating water systems. The inspectors observed insulation, heat trace circuits, space heater operation, and weatherized enclosures to ensure operability of affected systems. Also, the inspectors reviewed the licensee's procedures for managing frazil ice conditions and observed the implementation of the related procedures and discussed compensatory measures with control room personnel. The inspectors focused on plant management's actions for implementing the station's procedures for ensuring adequate personnel for safe plant operation and emergency response. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in IP 71111.01-05.

b. Findings

No findings were identified.

- .3 (Closed) Unresolved Item 05000266/2012002-01; 05000301/2012002-01: External Flooding Design and Mitigation Strategies Maintained and Tested Appropriately
- a. Inspection Scope

In NRC IR 05000266/2012002; 05000301/2012002, the inspectors identified a URI to determine whether a performance deficiency existed regarding the licensee's external flooding design features and mitigating strategies. The inspectors reviewed the

additional information provided by the licensee regarding whether the external flooding features/strategies were appropriately designed, tested, maintained, and procedurally controlled for event response. The inspectors identified the NCV described below. This URI is closed.

#### b. Findings

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

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to establish an 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.

<u>Description</u>: The licensee's FSAR described external flooding design features and mitigating strategies. Specifically, the FSAR stated that an external flood would be dissipated by natural drainage of the site, a storm sewer system, and an interceptor ditch. The inspectors requested procedures from the licensee describing the control and maintenance of these flood protection features. The licensee initiated AR01750334, which determined that procedure NP 7.7.9, "Facilities Monitoring Program," required the inspection of manholes, foundations, and miscellaneous yard structures. However the procedure did not contain specific flooding and drainage components for inspection, nor did it contain information relating to or requiring inspection of drains, culverts, or other mitigating structures, as discussed in the FSAR. The licensee initiated AR01761255, to track related actions.

The inspectors determined that the licensee had established model work orders (WOs) describing preventive maintenance tasks to be performed (i.e. visual inspections and cleaning) on a 6-month frequency, but the tasks were cancelled because they were classified as non-critical. The inspectors questioned the licensee regarding the cancellation of the preventive maintenance, the specific scope of the inspections needed to maintain the features described and the appropriateness of the scheduling of these WOs outside the periods of vulnerability. The licensee determined that the WOs were not adequate to maintain the design features, and the WOs needed to be revised to include specific location, inspection, and scheduling information prior to the periods of vulnerability as described in the FSAR. The licensee initiated AR01849702 and AR01879707 to track related actions.

Regarding the probable maximum precipitation external flooding mitigating strategies, the FSAR described a postulated flood occurring through simultaneous melting of a large amount of snow in spring combined with sustained heavy rains. The inspectors reviewed the licensee's AOP 13C, "Severe Weather Conditions," and found that one of the entry conditions was notification or validation of flood watch or warning. However, the procedure did not address, nor direct personnel to take, actions to respond to external flooding conditions as described in the FSAR. The inspectors questioned the licensee regarding the statements in the FSAR and regarding the lack of guidance for responding to a flooding event in the procedure. The licensee initiated AR01768247 and revised AOP 13C to include an Attachment D, "Response to Potential Flooding Concerns."

<u>Analysis</u>: The inspectors determined that the licensee's failure to establish an AOP to respond to a flooding event, and the failure to establish procedures for control and maintenance of design features for the maximum precipitation event as described in the FSAR, was a performance deficiency warranting further evaluation.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, 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 procedures for responses to external events, could negatively impact mitigating systems' ability to respond to an external flooding event.

The inspectors evaluated the finding using Inspection IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A, Exhibit 2, for the Mitigating Systems Cornerstone. The inspectors answered "Yes" to the Appendix A, Exhibit 2.B question for external event mitigating systems (Seismic/Fire/Flood/Severe Weather Protection Degraded) and answered "No" to Appendix A, Exhibit 4 questions 1 and 2, because the licensee was able to demonstrate through recent inspections that the site drainage system was able to perform the function as designed. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

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 decided to cancel the preventive maintenance associated with the ditches and storm drains following the completion of a drainage system study in June 2010. The inspectors reviewed the licensee's assessment of the issue and found that the licensee's assessment was consistent with the inspectors' assessment of the condition.

<u>Enforcement</u>: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these procedures. The licensee's established quality assurance program is described in the Quality Assurance Topical Report (QATR) FPL-1, Revision 12, dated July 3, 2012. The QATR, Section A.7, "Regulatory Commitments," states that Appendix A of RG 1.33, Revision 2, dated February 1978, is used as guidance in establishing the types of procedures required for plant operation and support. Regulatory Guide 1.33, Appendix A, requires procedures for "combating emergencies and other significant events," including acts of nature such as flooding events and "procedures for performing maintenance" including preventative maintenance and inspections of plant equipment.

Contrary to the above, as of March 29, 2012, the licensee failed to establish procedures for "abnormal, offnormal, or alarm conditions," including abnormal conditions such as flooding events and "procedures for performing maintenance" including preventive maintenance and inspections of plant equipment. Specifically, the licensee failed to establish procedures to control and maintain external flooding design features, and failed

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to establish procedures for responses to external flooding events, and in particular a probable maximum precipitation event as described in the FSAR.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was of very low safety significance (Green) and was entered into the CAP as AR01856322 to address recurrence (NCV 05000266/2013002-05; 05000301/2013002-05, Failure to Establish Procedures to Respond to Probable Maximum Precipitation Event).

- 1R04 Equipment Alignment (71111.04)
  - .1 <u>Quarterly Partial System Walkdowns</u>
    - a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- emergency diesel generator (EDG) G-01 after 18-month surveillance test;
- spent fuel pool (SFP) cooling;
- Unit 2 component cooling water (CCW) during Unit 1 outage; and
- EDG G-03 alignment during EDG G-04 out-of-service (OOS) for testing.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, FSAR, technical specification (TS) requirements, outstanding work orders (WOs), CRs, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the licensee's corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted four partial system walkdown samples as defined in IP 71111.04-05.

b. <u>Findings</u>

No findings were identified.

# .2 <u>Semi-Annual Complete System Walkdown</u>

## a. Inspection Scope

On February 11, 2013, the inspectors performed a complete system alignment inspection of the Unit 1 residual heat removal (RHR) system to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment lineups; electrical power availability; system pressure and temperature indications, as appropriate; component labeling; component lubrication; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

These activities constituted one complete system walkdown sample as defined in IP 71111.04-05.

b. Findings

No findings were identified.

- 1R05 <u>Fire Protection</u> (71111.05)
  - .1 <u>Routine Resident Inspector Tours</u> (71111.05Q)
    - a. Inspection Scope

The inspectors conducted fire protection (FP) walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- fire zone 104, RHR pump A (Unit 1);
- fire zone 105, RHR pump B (Unit 1)
- fire zone 108, RHR pump B (Unit 2);
- fire zone 109, RHR pump A (Unit 2);
- fire zone 775, EDG G-04; and
- fire zone 777, G-04 switchgear room.

The inspectors reviewed areas to assess if the licensee had implemented an FP program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive FP features in good material condition, and implemented adequate compensatory measures for OOS, degraded, or inoperable FP equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment

which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted six fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

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

<u>Introduction</u>: The inspectors identified a finding of very low safety significance (Green) and associated non-cited violation (NCV) of TS 5.4.1.h for the failure to implement compensatory fire watches for fire zones 101, 104, 105, 106, 107, 108, 109, 111, 113, and 117, in accordance with the fire protection program (FPP) 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.

<u>Description</u>: The inspectors performed FP walkdowns for the RHR pump rooms. During the inspectors' review of associated CAPs related to these fire zones, the inspectors reviewed AR01819449, "Fire Watch," which described a condition when the fire rounds performed by security for these areas were altered because the areas became high radiation areas. Specifically, from November 1 through November 2, 2012, from 1800 to 0600, fire rounds on the -5 foot elevation (fire zones 111, 113, and 117) and on the -19 foot elevation (fire zones 101, 104, 105, 106, 107, 108, and 109) were altered per control room direction to allow performance of the fire rounds by looking through floor grating at the 8 foot elevation in the primary auxiliary building. The inspectors noted that plant personnel had not entered the fire zones to perform the required fire watch.

The inspectors determined that the licensee had established hourly fire rounds as compensatory measures in response to AR01711816, "Fireworks Computer Not Properly Set Up for Off-Normal Signal." The compensatory measures were needed to comply with the requirements of 10 CFR Part 50, Appendix R, to maintain the fire alarm and detection system capability. Additionally, the licensee had established fire founds every four hours as compensatory measures in response to AR01345411, "Appendix R. Common Enclosure Concern," and to AR01347157, "Appendix R Common Enclosure Unanalyzed Condition." The compensatory measures for these conditions were needed to comply with the requirements of 10 CFR Part 50, Appendix R, to maintain safe shutdown capability. Approximately eight 1-hour fire rounds and two 4-hour fire rounds were performed in the altered manner described above without entrance into the fire zones. The licensee performed a condition evaluation in response to AR01819449, determined that fire rounds could be performed in this manner, and that a procedure change request (PCR) 01832365 to OM 3.27 was initiated to allow the continuance of this practice in the future.

The inspectors guestioned the licensee regarding the performance of the altered fire watches and the proposed change to the procedure. The inspectors reviewed licensee procedure OM 3.27 and found that compensatory measure fire watches (fire rounds) were defined as individuals designated to inspect fire zones for potential fire hazards either as compensatory actions for FP systems OOS or to satisfy the requirements of Appendix R to protect alternate safe shutdown equipment. Per OM 3.27, Step 4.3, fire watches were responsible for inspecting the fire zones for the following: combustible materials not normally located in the fire zone; work activities that can introduce a potential ignition source in the fire zone; and, any other abnormal activities that could raise the likelihood of a fire starting in the zone. Additionally, the inspectors reviewed the FSAR and found that the FPP's design criteria, protection features, and contingency actions are described in the Fire Protection Evaluation Report (FPER). Specifically, FPER Section 9.3, "Compensatory Measure Fire Watch Responsibilities," contained the same requirements for fire watches as described in OM 3.27. Also, the inspectors found that these same requirements for fire watches were identified in nuclear procedure (NP) 1.9.14, "Fire Protection Organization."

The inspectors determined that the licensee's condition evaluation which allowed the performance of fire watches by alternative method had failed to meet the requirements for fire watches as described in OM 3.27. Specifically, the alternative method resulted in the inspections of the fire zones being performed from an elevation up to 23 feet away, were performed without entrance into enclosed rooms that were not visually accessible from the higher elevations, and were performed without entrance into any of the fire zones. The licensee initiated AR01855430 in response to the inspectors' concerns.

<u>Analysis</u>: The inspectors determined that the failure to implement a compensatory fire watch as required by the FPP for fire zones described above was a performance deficiency warranting further review.

The inspectors determined that this finding was more than minor in accordance with Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening," dated September 7, 2012, because the finding 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 fire watches were established as compensatory measures to maintain fire alarm, detection system, and safe shutdown capabilities.

The inspectors evaluated the finding using IMC 0609, "Significance Determination Process (SDP)," Attachment 0609.04, "Initial Characterization of Findings," Table 2, dated June 19, 2012, for the Initiating Events Cornerstone. The inspectors determined, using Table 3, that it could be evaluated using Appendix F, "Fire Protection Significance Determination Process," because the finding degraded the ability to adequately implement fire prevention and administrative controls affecting the ability to reach and maintain safe shutdown capabilities. The inspectors completed a significance determination Process," dated February 28, 2005. The inspectors determined that the finding was associated with the fire prevention and administrative controls, and fixed FP systems categories. The inspectors used IMC 0609, Appendix F, Attachment 2, "Degradation Rating Guidance Specific to Various Fire Protection Program Elements," dated February 28, 2005, and assigned it a high degradation because it was a failure to

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implement a fire watch at a site and because the fire watch was a compensatory measure in place of a fixed fire system. The inspectors assigned a duration factor of 0.01 for the time period the fire watches were not implemented (approximately 8 hours). The inspectors performed the screening check determining a change in core damage frequency (CDF) of 4E-4, found that this change in CDF was higher than those indentified in Appendix F, Table 1.4.3, for high degradation, and therefore a Phase 2 analysis was needed.

The Region III Senior Reactor Analyst (SRA) performed a modified Phase 2 evaluation using the guidance of IMC 0609 Appendix F and information on fire frequencies from the licensee's Individual Plant Examination of External Events (IPEEE), dated June 30, 1995. The SRA calculated a total fire frequency of 5.8E-3/yr for the fire zones that were not screened in the initial phase of the IPEEE evaluation. Using Step 2.1 of Appendix F, the SRA determined that for all the fire zones, a safe shutdown path consisting of at least one automatic steam-driven train would be available allowing for a screening unavailability factor of 0.1. A revised duration factor of 9.1E-4 was used to more accurately reflect the exposure period. The estimated bounding  $\triangle$ CDF was 5.3E-7/yr, which is a finding of very low safety significance (Green).

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. The inspectors reviewed the licensee's assessment for the proposed cross-cutting aspect and found that the licensee's assessment was consistent with the inspectors' assessment of the condition.

<u>Enforcement</u>: Technical Specification 5.4.1.h, "Fire Protection Implementation," for Units 1 and 2 required that written procedures be established, implemented, and maintained, covering activities related to FPP implementation. As part of its FPP implementation, the licensee had established procedures which provide guidelines for control of FP and safe shutdown equipment. Procedure OM 3.27, "Control of Fire Protection and Appendix R Safe Shutdown Equipment," established the requirements for compensatory measures and performance of fire watches. Specifically, Step 4.3, required fire watches to inspect fire zones for combustible materials not normally located in the fire zone, work activities that can introduce a potential ignition source in the fire zone, and any other abnormal activities that could raise the likelihood of a fire starting in the zone.

Contrary to the above, on November 1, 2012, the licensee failed to implement the FPP requirements for compensatory fire watches as required by OM 3.27 for fire zones 101, 104, 105, 106, 107, 108, 109, 111, 113, and 117. Specifically, the licensee failed to inspect the fire zones for combustible materials not normally located in the fire zone, work activities that can introduce a potential ignition source in the fire zone, and any other abnormal activities that could raise the likelihood of a fire starting in the zone.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was of very low safety significance (Green) and was entered into the licensee's CAP as AR01855430 to address recurrence

(NCV 05000266/2013002-02; 05000301/2013002-02, Failure to Properly Implement a Compensatory Fire Watch As Required by the Fire Protection Program).

- 1R06 <u>Flooding</u> (71111.06)
  - .1 Underground Vaults
    - a. Inspection Scope

The inspectors selected underground bunkers/manholes subject to flooding that contained cables, failure of which could disable risk-significant equipment. The inspectors determined that the cables were not submerged, that splices were intact, and that appropriate cable support structures were in place. In those areas where dewatering devices were used, such as a sump pump, the device was operable and level alarm circuits were set appropriately to ensure that the cables would not be submerged. In those areas without dewatering devices, the inspectors verified that drainage of the area was available, or that the cables were qualified for submergence conditions. The inspectors also reviewed the licensee's corrective action documents with respect to past submerged cable issues identified in the corrective action program to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following underground bunkers/manholes subject to flooding:

- manhole 2; and
- manhole Z-066A.

This inspection constituted one underground vaults sample as defined in IP 71111.06-05.

b. Findings

No findings were identified.

1R07 Heat Sink Performance

# .1 <u>Heat Sink Performance</u> (71111.07)

a. Inspection Scope

The inspectors reviewed the licensee's testing of Spent Fuel Pool (SFP) heat exchangers to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared to the acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions. Documents reviewed are listed in the Attachment to this report.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07-05.

#### b. Findings

No findings were identified.

#### .2 <u>Triennial Review of Heat Sink Performance</u> (71111.07T)

#### a. Inspection Scope

The inspectors reviewed operability determinations, completed surveillances, vendor manual information, associated calculations, performance test results, and inspection results associated with the SFP heat exchangers and containment fan cooler units (CFCUs). The heat exchangers were chosen based on their risk significance in the licensee's probabilistic safety analysis, their important safety-related (SR) support functions, and their operating history.

For the selected heat exchangers, the inspectors reviewed testing, inspection, maintenance, and monitoring of Biotic Fouling and Macrofouling Programs relied upon to ensure proper heat transfer. This was accomplished by verifying: (1) the selected test method was consistent with accepted industry practices, or equivalent; (2) the test conditions were consistent with the selected methodology; and (3) the test acceptance criteria were consistent with the design-basis values. In addition, the inspectors reviewed the results of the heat exchanger performance, testing and verified the test results considered: (1) differences between testing conditions and design conditions; and (2) test instrument inaccuracies. The inspectors also verified trending of test results to confirm the test frequency was sufficient to detect degradation prior to loss of heat removal capabilities below design-basis values. In addition, the inspectors verified the condition and operation of the heat exchangers were consistent with design assumptions in heat transfer calculations and applicable descriptions in the FSAR. The inspectors verified the licensee evaluated the potential for water hammer and established controls and operational limits to prevent heat exchanger degradation due to excessive flowinduced vibration during operation. In addition, eddy current test reports and visual inspection records were reviewed to determine the structural integrity of the heat exchanger.

The inspectors reviewed tests or other equivalent methods used by the licensee to ensure the availability and performance of the ultimate heat sink (UHS) and SR service water (SW) system. Specifically, the inspectors reviewed the licensee's performance testing results of the SW system and UHS, including the test results for key components. In addition, the inspectors compared the SW flow balance results to system configuration and flow assumptions made by design-basis accident analyses. The inspectors also verified the licensee ensured adequate isolation during design-basis events, consistency between testing methodologies and design-basis leakage rate assumptions, and proper performance of risk significant non-safety-related functions. The inspectors performed a system walkdown of the SW system to verify the licensee's assessment on structural integrity. In addition, the inspectors reviewed licensee's disposition of any active through-wall pipe leaks and the history of through-wall pipe leakage to identify any adverse trends since the last NRC Triennial Heat Sink Performance inspection. For buried or inaccessible piping, the inspectors reviewed the licensee's Pipe Testing, Inspection, and Monitoring Program to verify structural integrity. The inspectors reviewed the Periodic Piping Inspection Program for detection and correction of protective coating failure, corrosion, and erosion. The inspectors also

reviewed the operational history and in-service testing vibration monitoring results for the deep draft vertical pumps.

In addition, the inspectors reviewed CRs related to the heat exchangers and heat sink performance issues to verify the licensee had an appropriate threshold for identifying issues and to evaluate the effectiveness of the corrective actions.

The documents reviewed are included in the Attachment to this report.

These inspection activities constituted three heat sink inspection samples as defined in IP 71111.07-05.

b. Findings

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

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to account for the most limiting SFP time to boil in calculations and procedures. Specifically, the SW design-basis analysis and abnormal operating procedure (AOP) for loss of SFP cooling used a time to boil value based on non-limiting conditions.

Description: On September 19, 1996, the NRC issued a letter titled "Resolution of Spent Fuel Storage Pool Safety Issues: Issuance of Final Staff Report and Notification of Staff Plans to Perform Plant-Specific, Safety Enhancement Backfit Analyses, Point Beach Nuclear Plant, Units 1 And 2." This letter stated the design of Point Beach was identified as having characteristics that could allow the SFP to reach boiling in a short period of time following a loss of cooling with one unit in refueling. The NRC requested the licensee to comment on the accuracy of the staff's assessment for consideration during the planning of regulatory analysis.

On November 13, 1996, the licensee responded to the NRC via Letter VPNPD-96-094. The licensee stated that the time to boil following a reactor shutdown for a range of initial SFP temperatures was calculated, and concluded that sufficient response time existed for plant personnel to, in part, restore SFP cooling water and SW flow in accordance with AOP-8F, "Loss of Spent Fuel Pool Cooling," in the event of a loss of SFP cooling. In addition, this letter described the SFP cooling system as consisting of two separate cooling trains and stated that two trains were capable of maintaining pool temperature below 120°F and, if one train was unavailable, the operable train was capable of maintaining temperature below 145°F for the maximum design heat load where a full core offload fills the pool.

The inspectors reviewed Calculation 2002-0003, "Service Water System Design Basis," and noted the SFP heat exchangers were assumed to be isolated from the SW system during the first 8 hours after the initiation of a design-basis accident such as a loss-of-coolant accident (LOCA). This operational constraint was translated into procedure AOP-8F as a note to the operators not to align SW to the SFP heat exchangers until 8 hours had elapsed. The licensee determined the operators could realign SW to the SFP heat exchangers and establish cooling within 2 hours to prevent boiling in the SFP. The assumption of 8 hours to initiate, plus 2 hours to complete the Enclosure

actions, was based on Section 9.9 of the FSAR, "Spent Fuel Cooling and Filtration," which describes a time to boil of approximately 10 hours assuming a loss of SFP cooling in the worst case conditions of a full core offload completed 13 days following reactor shutdown and an initial SFP temperature of 120°F.

However, the inspectors noted the assumption of an initial SFP temperature of 120°F did not represent the worst case condition because this assumed two cooling systems would be in service. The inspectors noted Section 9.9 of the FSAR also described the worst case condition involving one train of cooling and an initial SFP temperature of 145°F. In addition, the licensee procedurally allowed a maximum heat load of 24.6 MBTU/hr to the SFP. Under these conditions, the time to boil was determined to be about 7.5 hours. Because AOP-8F directed operators to not realign SW to the SFP heat exchangers until after 8 hours consistent with the assumptions of Calculation 2002-0003, the inspectors were concerned, under worst conditions, this procedure would not allow sufficient time to restore SW to the SFP heat exchangers before SFP reached boiling temperatures. In addition, restoring SW to the SFP heat exchangers before the 8-hour constraint would represent an additional and unanalyzed heat load to the SW system during the time period of highest SW demand.

The licensee captured the inspectors' concerns in their CAP as AR01852528. The corrective actions considered at the time of this inspection were to revise the FSAR as needed and the affected procedures and calculations.

<u>Analysis</u>: The inspectors determined the failure to account for the most limiting SFP time to boil in Calculation 2002-0003 and AOP-8F was contrary to 10 CFR Part 50, Appendix B, Criterion III, "Design Control," and was a performance deficiency.

The inspectors determined that this finding was 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. Specifically, the AOP used to respond to a loss of SFP cooling would not allow the restoration of SW to the SFP heat exchangers before the most limiting time to boil.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04. Because the finding impacted the Barrier Integrity Cornerstone, the inspectors screened the finding through IMC 0609, Appendix A, "The Significance Determination Process for Findings" At-Power," using Exhibit 3, "Barrier Integrity Screening Questions," dated June 19, 2012, and determined the significance of this finding could be evaluated using qualitative criteria in accordance with IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria," dated April 12, 2012. Specifically, the finding adversely affected decay heat removal capability to prevent SFP temperature from exceeding the maximum analyzed limit value. With consultation of RIII SRA, the inspectors determined the finding screened as of very low safety significance (Green) because it involved a design-basis event (e.g., 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 frequency of this was determined to be less than 1E-6/yr. In addition, a review of the last two RFOs involving a full core offload confirmed the actual SFP time to boil would have allowed sufficient time to restore SW to the SFP heat exchangers if needed.

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. Specifically, the 8-hour operational constraint was confirmed to exist at least since 2009.

<u>Enforcement</u>: Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures shall be established to assure that applicable regulatory requirements and the design-basis are correctly translated into specifications, drawings, procedures, and instructions. Section 9.9 of FSAR described the most limiting condition for SFP cooling as one train of cooling with a maximum pool temperature of 145°F.

Contrary to the above, as of February 28, 2013, the licensee failed to ensure that applicable regulatory requirements and design-basis were correctly translated into specifications. Specifically, the most limiting conditions of SFP cooling specified in FSAR Section 9.9 were not incorporated into Calculation 2002-0003. As a result, an incorrect operational constraint was incorporated into AOP-8F that would not allow sufficient time to restore SW to the SFP heat exchangers before SFP reached boiling temperatures.

Because this violation was of very low safety significance and was entered into the licensee's CAP as AR01852528, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. (NCV 05000266/2013002-03; 05000301/2013002-03, Response for Loss of Spent Fuel Pool Cooling Did Not Consider the Most Limiting Time to Boil).

- 1R11 Licensed Operator Regualification Program (71111.11)
  - .1 <u>Resident Inspector Quarterly Review of Licensed Operator Regualification (71111.11Q)</u>
    - a. Inspection Scope

On January 31, 2013, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan (EP) actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program simulator sample as defined in IP 71111.11.

b. Findings

No findings were identified.

# .2 <u>Resident Inspector Quarterly Observation of Heightened Activity or Risk</u> (71111.11Q)

a. Inspection Scope

On March 17, 2013, the inspectors observed the shutdown of Unit 1. This was an activity that required heightened awareness or was related to increased risk. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of procedures;
- control board manipulations; and
- oversight and direction from supervisors.

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk sample as defined in IP 71111.11.

b. Findings

No findings were identified.

# 1R12 <u>Maintenance Effectiveness</u> (71111.12)

- .1 <u>Routine Quarterly Evaluations</u> (71111.12Q)
  - a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- chemical volume control system (CVCS) using a function-oriented approach ;
- reactor coolant system (RCS) using a problem-oriented approach; and
- control rod drive shroud fan using a problem-oriented approach.

The inspectors reviewed events, such as where ineffective equipment maintenance had resulted or could have resulted in valid or invalid automatic actuations of engineered safeguards systems, and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted three completed quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings were identified.

#### 1R13 <u>Maintenance Risk Assessments and Emergent Work Control</u> (71111.13)

- .1 Maintenance Risk Assessments and Emergent Work Control
  - a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and SR equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work during:

- risk management during week of January 1;
- risk management during severe cold weather week of January 21;
- risk management during week of January 27;
- risk management during unplanned loss of Unit 1 1X03 transformer and associated Notification of Unusual Event on February 6, 2013;
- risk management during week of March 4; and
- refueling outage work activities.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and

walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Documents reviewed are listed in the Attachment to this report.

These maintenance risk assessments and emergent work control activities constituted six samples as defined in IP 71111.13-05.

b. Findings

No findings were identified.

# 1R15 Operability Determinations and Functional Assessments (71111.15)

- .1 Operability Evaluations
- a. Inspection Scope

The inspectors reviewed the following operability issues:

- operability evaluation of SW pumps with lowering lake levels;
- vendor report for potentially degraded COM 5 relays;
- 5 amp versus 2 amp fuse installed in 480 volt (V) bus 2B-01;
- operability evaluation of bus 2B-03 ground fault;
- operability of Unit 2 façade column impact on SR equipment; and
- functionality assessment of Unit 2 main turbine overspeed mechanical trip.

The inspectors selected these potential operability/functionality issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and FSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This operability inspection constituted six samples as defined in IP 71111.15-05.

b. <u>Findings</u>

No findings were identified.

# 1R18 Plant Modifications (71111.18)

The inspectors reviewed the following modifications:

- emergency preparedness seismic monitors (partial) (permanent); and
- Unit 1 1X03 transformer upstream circuit switcher disabled (temporary).

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design-basis, the FSAR, and the TSs, as applicable, to verify that the modification did not affect the operability or availability of the affected systems. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one temporary and one partial-permanent modification sample as defined in IP 71111.18 05.

b. Findings

No findings were identified.

- 1R19 Post-Maintenance Testing (71111.19)
  - .1 <u>Post-Maintenance Testing (PMT)</u>
  - a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- PMT of IA-1560 check valve after repair from startup during crossover steam dump testing (Unit 2);
- PMT of EDG G-04 fan motor after greasing;
- PMT of weld repairs on SFP heat exchanger; and
- PMT of pressurizer pressure control relay replacement (Unit 2).

These activities were selected based upon the SSCs' ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational

status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the FSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with PMTs to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted four post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

- 1R20 Outage Activities (71111.20)
  - .1 Refueling Outage Activities
  - a. Inspection Scope

The inspectors reviewed the Outage Safety Plan (OSP) and contingency plans for the Unit 1 RFO (U1R34), conducted March 17, 2013 through the end of this inspection period, to confirm that the licensee had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense-in-depth. During the RFO, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the OSP for key safety functions and compliance with the applicable TS when taking equipment OOS;
- implementation of clearance activities and confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing;
- installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error;
- controls over the status and configuration of electrical systems to ensure that TS and OSP requirements were met, and controls over switchyard activities;
- monitoring of decay heat removal processes, systems, and components;
- controls to ensure that outage work was not impacting the ability of the operators to operate the SFP cooling system;
- reactor water inventory controls including flow paths, configurations, and alternative means for inventory addition, and controls to prevent inventory loss;
- controls over activities that could affect reactivity;
- maintenance of secondary containment as required by TS;
- refueling activities including fuel handling; and
- licensee identification and resolution of problems related to RFO activities.

Enclosure

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one partial refueling outage sample as defined in IP 71111.20-05.

b. Findings

No findings were identified.

- 1R22 <u>Surveillance Testing</u> (71111.22)
  - .1 Surveillance Testing
    - a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- high head SI (IT-01) train A surveillance test (Unit 1) (routine);
- emergency core cooling system (ECCS) system venting surveillance test (2TS ECCS 002) train A (Unit 2) (routine);
- 2ICP-2-001, reactor protection and engineered safety features surveillance test (Unit 2) (routine);
- EDG G-04 monthly surveillance including associated valve testing in the air starting system (inservice testing);
- EDG 01-92A fuel oil sampling (Unit 1) (routine);
- RCS primary leak rate calculation (Unit 1) (RCS leakage);
- seismic monitor functional test (Units 1 and 2) (routine);
- RPS instrumentation surveillance (Unit 2) (routine); and
- SW pump quarterly surveillance (Units 1 and 2) (routine).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and consistent with the system design-basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the FSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other

applicable procedures; jumpers and lifted leads were controlled and restored where used;

- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of American Society of Mechanical Engineers (ASME) Code Section XI, and reference values were consistent with the system design-basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for SR instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted seven routine surveillance testing samples, one inservice testing sample, and one RCS leak detection sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

# 1EP6 Drill Evaluation (71114.06)

- .1 <u>Training Observation</u>
  - a. Inspection Scope

The inspector observed a simulator training evolution for licensed operators on January 31, 2013, which required Emergency Plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator (PI) data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the Attachment to this report.

This inspection of the licensee's training evolution with emergency preparedness drill aspects constituted one sample as defined in IP 71114.06-06.

b. Findings

No findings were identified.

# 2. RADIATION SAFETY

# Cornerstones: Occupational Radiation Safety, Public Health Safety

# 2RS4 Occupational Dose Assessment (71124.04)

The inspection activities supplement those documented in NRC Inspection Report (IR) 05000266/2012002; 05000301/2012002 and IR 05000266/2012005; 05000301/2012005.

.1 <u>Special Dosimetric Situations</u> (02.04)

Neutron Dose Assessment

a. Inspection Scope

The inspectors initiated Unresolved Item 05000266/2012005-05; 05000301/2012005-05, "Unmonitored Neutron Exposure Evaluation," concerning additional information needed to assess the neutron exposure to various plant personnel from a neutron source stored outside of the Radiologically Controlled Area (RCA). Supplemental evaluations were performed by the licensee, and the additional information was reviewed by the inspectors.

b. Findings

# Failure to Survey for Neutron Dose from Source Storage

<u>Introduction</u>: A self-revealed finding of very low safety significance (Green) and associated NCV of 10 CFR 20.1501 was identified for the failure to evaluate dose to personnel from radioactive material storage areas outside the RCA.

<u>Description</u>: In the late 1990s, the licensee adjusted the plant's RCA boundary, which relocated a radioactive material storage room that contained a plutonium/beryllium neutron source outside the adjusted RCA boundary. Several years later, the licensee added office spaces to the areas around the radioactive material storage room.

In September 2012, the licensee noted abnormal neutron exposure on dosimeters used for the Radiological Environmental Monitoring Program. The licensee conducted an evaluation of the issue and determined that the dosimeters had been stored in the office space adjacent to the radioactive material storage room for longer than usual while awaiting shipment for processing. The dosimeters were stored in this area for approximately two weeks. This extended storage period allowed the neutron dose to accumulate to levels above the dosimeters' minimum detectable level of 10 millirem (mrem). Although the licensee was aware that the neutron source was stored in the radioactive material storage room, the neutron dose received by personnel in the adjacent spaces was not previously analyzed and evaluated when radiologically characterizing the area. Routine gamma dose rates were taken in areas adjacent to the radioactive material storage room but neither area dosimeters nor routine neutron dose rate surveys were utilized.

The licensee initiated AR01809560 in response to the inspectors' concern. Upon discovery, the office area was secured until the radioactive source was moved into the RCA. Subsequent neutron surveys indicated a maximum dose rate to personnel of 0.058 mrem/hour. Due to the high occupancy time associated with office space however, this dose rate could result in appreciable dose to personnel.

The licensee subsequently conducted dose assessments that covered calendar years 2009 through 2012 on various groups of individuals who performed work around the radioactive material storage room, to determine the dose received by these individuals. The calculated public dose to the janitorial staff was 0.57 mrem/year. The licensee classified the janitorial staff as members the public. The maximally exposed occupational worker was calculated to have received a maximum yearly dose of 92.8 mrem.

<u>Analysis</u>: The inspectors determined that the failure to evaluate dose to personnel from radioactive material storage areas outside the RCA was a performance deficiency, the cause of which was reasonably within the licensee's ability to foresee and correct, and should have been prevented. This finding was not subject to traditional enforcement since the incident did not result in a significant safety consequence, did not impact the NRC's ability to perform its regulatory function, and was not willful.

The performance deficiency 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. Specifically, it adversely affected the Occupational Radiation Safety Cornerstone objective to ensure the adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation, as well as the Public Radiation Safety Cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive material from exposure to radioactive materials released into the public domain, as a result of routine civilian nuclear reactor operation. The inspectors also reviewed the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, and did not find any similar examples.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, and the finding was determined to be associated with both the Occupational and Public Radiation Safety Cornerstones. The inspectors determined that the finding would be assessed through the Public Radiation Safety Cornerstone in accordance with IMC 0609, Appendix D, "Public Radiation Safety Significance Determination Process," dated February 12, 2008, because it is the more restrictive. The inspectors determined that the finding did involve radioactive material control, did not involve transportation, and there was no public exposure greater than 0.005 Rem (5 mrem).

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. 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 (H.4(c)).

<u>Enforcement</u>: Title 10 CFR 20.1501 requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in 10 CFR Part 20 and are reasonable under the circumstances, to evaluate the extent of radiation levels, concentrations, or quantities of radioactive materials, and the potential radiological hazards that could be present.

Contrary to the above, since the movement of the RCA and subsequent addition of office space in the 1990s, the licensee did not make or cause to be made surveys necessary to ensure compliance with the occupational and public dose limits set forth in 10 CFR 20.1201 and 20.1301 for areas adjacent to the radioactive material storage room. This was a violation of 10 CFR 20.1501 in that the licensee did not perform any neutron surveys to determine the radiological impact to personnel.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy, because it had a very low safety significance (Green) and was entered into the licensee's CAP as AR01809560 to address recurrence (NCV 05000266/2013002-04; 05000301/2013002-04, Failure to Survey for Neutron Dose from Source Storage).

#### 2RS5 Radiation Monitoring Instrumentation (71124.05)

The inspection activities supplement those documented in NRC IR 05000266/2012002; 05000301/2012002, and constituted a partial sample as defined in IP 71124.05-05.

- .1 Inspection Planning (02.01)
- a. Inspection Scope

The inspectors reviewed effluent monitor alarm setpoint bases and the calculational methods provided in the Offsite Dose Calculation Manual (ODCM).

b. Findings

No findings were identified.

- .2 <u>Walkdowns and Observations</u> (02.02)
- a. Inspection Scope

The inspectors walked down Effluent Radiation Monitoring Systems, including at least one liquid and one airborne system. Focus was placed on flow measurement devices and all accessible point-of-discharge liquid and gaseous effluent monitors of the selected systems. The inspectors assessed whether the effluent/process monitor configurations aligned with ODCM descriptions and observed monitors for degradation and OOS tags.

## b. Findings

No findings were identified.

.3 <u>Calibration and Testing Program</u> (02.03)

# Process and Effluent Monitors

a. Inspection Scope

The inspectors selected effluent monitor instruments (such as gaseous and liquid) and evaluated whether channel calibration and functional tests were performed consistent with radiological effluent TS (RETS)/ODCM. The inspectors assessed whether: (a) the licensee calibrated its monitors with National Institute of Standards and Technology traceable sources; (b) the primary calibrations adequately represented the plant nuclide mix; (c) when secondary calibration sources were used, the sources were verified by the primary calibration; and, (d) the licensee's channel calibrations encompassed the instrument's alarm set-points.

The inspectors assessed whether the effluent monitor alarm setpoints were established as provided in the ODCM and station procedures.

For changes to effluent monitor setpoints, the inspectors evaluated the basis for changes to ensure that an adequate justification existed.

b. Findings

No findings were identified.

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

This inspection constituted one complete sample as defined in IP 71124.06-05.

.1 Inspection Planning and Program Reviews (02.01)

#### Event Report and Effluent Report Reviews

a. Inspection Scope

The inspectors reviewed the radiological effluent release reports issued since the last inspection to determine whether the reports were submitted as required by the TSs/ODCM. The inspectors reviewed anomalous results, unexpected trends, or abnormal releases identified by the licensee for further inspection to determine whether they were evaluated, were entered in the CAP, and were adequately resolved.

The inspectors identified radioactive effluent monitor operability issues reported by the licensee as provided in effluent release reports, to review these issues during the onsite inspection, as warranted, given their relative significance and determine whether the issues were entered into the corrective action program and adequately resolved.

b. Findings

No findings were identified.

Offsite Dose Calculation Manual and Final Safety Analysis Report Review

a. Inspection Scope

The inspectors reviewed FSAR descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths so they could be evaluated during inspection walkdowns.

The inspectors reviewed changes to the ODCM made by the licensee since the last inspection against the guidance in NUREG-1301, 1302, and 0133, and Regulatory Guides (RGs) 1.109, 1.21, and 4.1. When differences were identified, the inspectors reviewed the technical basis or evaluations of the change during the onsite inspection to determine whether they were technically justified and maintain effluent releases as-low-as--reasonably-achievable.

The inspectors reviewed licensee documentation to determine whether the licensee has identified any non-radioactive systems that have become contaminated as disclosed either through an event report or the ODCM since the last inspection. This review provided an intelligent sample list for the onsite inspection of any 10 CFR 50.59 evaluations and allowed a determination whether any newly contaminated systems have an unmonitored effluent discharge path to the environment, whether any required ODCM revisions were made to incorporate these new pathways and whether the associated effluents were reported in accordance with RG 1.21.

b. Findings

No findings were identified.

Groundwater Protection Initiative Program

a. Inspection Scope

The inspectors reviewed reported groundwater monitoring results and changes to the licensee's written program for identifying and controlling contaminated spills/leaks to groundwater.

b. Findings

No findings were identified.

# Procedures, Special Reports, and Other Documents

a. Inspection Scope

The inspectors reviewed Licensee Event Reports (LERs), event reports, and/or special reports related to the effluent program issued since the previous inspection to identify any additional focus areas for the inspection based on the scope/breadth of problems described in these reports.

The inspectors reviewed effluent program implementing procedures, particularly those associated with effluent sampling, effluent monitor set-point determinations, and dose calculations.
The inspectors reviewed copies of licensee and third party (independent) evaluation reports of the effluent monitoring program since the last inspection to gather insights into the licensee's program and aid in selecting areas for inspection review (smart sampling).

b. Findings

No findings were identified.

- .2 <u>Walkdowns and Observations</u> (02.02)
- a. Inspection Scope

The inspectors walked down selected components of the gaseous and liquid discharge systems to evaluate whether equipment configuration and flow paths align with the documents reviewed in Section 2RS6.1 (02.01) above and to assess equipment material condition. Special attention was made to identify potential unmonitored release points (such as open roof vents in boiling water reactor turbine decks, temporary structures butted against turbine, auxiliary or containment buildings), building alterations which could impact airborne, or liquid effluent controls, and ventilation system leakage that communicates directly with the environment.

For equipment or areas associated with the systems selected for review that were not readily accessible due to radiological conditions, the inspectors reviewed the licensee's material condition surveillance records, as applicable. The inspectors walked down filtered ventilation systems to assess for conditions such as degraded high-efficiency particulate air (HEPA)/charcoal banks, improper alignment, or system installation issues that would impact the performance or the effluent monitoring capability of the effluent system.

As available, the inspectors observed selected portions of the routine processing and discharge of radioactive gaseous effluent (including sample collection and analysis) to evaluate whether appropriate treatment equipment was used and the processing activities align with discharge permits.

The inspectors determined if the licensee has made significant changes to their effluent release points, e.g., changes subject to a 10 CFR 50.59 review or require NRC approval of alternate discharge points.

As available, the inspectors observed selected portions of the routine processing and discharge liquid waste (including sample collection and analysis) to determine whether appropriate effluent treatment equipment is being used and that radioactive liquid waste is being processed and discharged in accordance with procedure requirements and aligns with discharge permits.

b. Findings

No findings were identified.

# .3 Sampling and Analyses (02.03)

#### a. Inspection Scope

The inspectors selected effluent sampling activities, consistent with smart sampling, and assessed whether adequate controls have been implemented to ensure representative samples were obtained (e.g., provisions for sample line flushing, vessel recirculation, composite samplers, etc.)

The inspectors selected effluent discharges made with inoperable (declared OOS) effluent radiation monitors to assess whether controls were in place to ensure compensatory sampling was performed consistent with the RETS/ODCM and that those controls were adequate to prevent the release of unmonitored liquid and gaseous effluents.

The inspectors determined whether the facility was routinely relying on the use of compensatory sampling in lieu of adequate system maintenance, based on the frequency of compensatory sampling since the last inspection.

The inspectors reviewed the results of the Inter-Laboratory Comparison Program to evaluate the quality of the radioactive effluent sample analyses and assessed whether the Inter-Laboratory Comparison Program includes had-to-detect isotopes as appropriate.

b. Findings

No findings were identified.

.4 Instrumentation and Equipment (02.04)

Effluent Flow Measuring Instruments

a. Inspection Scope

The inspectors reviewed the methodology the licensee uses to determine the effluent stack and vent flow rates to determine whether the flow rates were consistent with RETS/ODCM or FSAR values, and that differences between assumed and actual stack and vent flow rates did not affect the results of the projected public doses.

b. Findings

No findings were identified.

# Air Cleaning Systems

a. Inspection Scope

The inspectors assessed whether surveillance test results since the previous inspection for TS-required ventilation effluent discharge systems (HEPA and charcoal filtration), such as the Standby Gas Treatment System and the Containment/Auxiliary Building Ventilation System, met TS acceptance criteria.

#### b. Findings

No findings were identified.

#### .5 <u>Dose Calculations</u> (02.05)

#### a. Inspection Scope

The inspectors reviewed all significant changes in reported dose values compared to the previous radiological effluent release report (e.g., a factor of 5, or increases that approach Appendix I Criteria to evaluate the factors, which may have resulted in the change.

The inspectors reviewed radioactive liquid and gaseous waste discharge permits to assess whether the projected doses to members of the public were accurate and based on representative samples of the discharge path.

Inspectors evaluated the methods used to determine the isotopes that are included in the source term to ensure all applicable radionuclides are included within detectability standards. The review included the current Part 61 analyses to ensure hard-to-detect radionuclides are included in the source term.

The inspectors reviewed changes in the licensee's offsite dose calculations since the last inspection to evaluate whether changes were consistent with the ODCM and RG 1.109. Inspectors reviewed meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to evaluate whether appropriate factors were being used for public dose calculations.

The inspectors reviewed the latest Land Use Census to assess whether changes (e.g., significant increases or decreases to population in the plant environs, changes in critical exposure pathways, the location of nearest member of the public, or critical receptor, etc.) have been factored into the dose calculations.

For the releases reviewed above, the inspectors evaluated whether the calculated doses (monthly, quarterly, and annual dose) are within the 10 CFR Part 50, Appendix I and TS dose criteria.

The inspectors reviewed, as available, records of any abnormal gaseous or liquid tank discharges (e.g., discharges resulting from misaligned valves, valve leak-by, etc.) to ensure the abnormal discharge was monitored by the discharge point effluent monitor. Discharges made with inoperable effluent radiation monitors, or unmonitored leakages were reviewed to ensure that an evaluation was made of the discharge to satisfy 10 CFR 20.1501 so as to account for the source term and projected doses to the public.

#### b. Findings

No findings were identified.

# .6 <u>Groundwater Protection Initiative Implementation</u> (02.06)

#### a. Inspection Scope

The inspectors reviewed monitoring results of the Groundwater Protection Initiative to determine whether the licensee had implemented its program as intended and to identify any anomalous results. For anomalous results or missed samples, the inspectors assessed whether the licensee had identified and addressed deficiencies through its CAP.

The inspectors reviewed identified leakage or spill events and entries made into 10 CFR 50.75 (g) records. The inspectors reviewed evaluations of leaks or spills and reviewed any remediation actions taken for effectiveness. The inspectors reviewed onsite contamination events involving contamination of ground water and assessed whether the source of the leak or spill was identified and mitigated.

For unmonitored spills, leaks, or unexpected liquid or gaseous discharges, the inspectors assessed whether an evaluation was performed to determine the type and amount of radioactive material that was discharged by:

- Assessing whether sufficient radiological surveys were performed to evaluate the extent of the contamination and the radiological source term and assessing whether a survey/evaluation had been performed to include consideration of hard-to-detect radionuclides.
- Determining whether the licensee completed offsite notifications, as provided in its Groundwater Protection Initiative implementing procedures.

The inspectors reviewed the evaluation of discharges from onsite surface water bodies that contain or potentially contain radioactivity, and the potential for ground water leakage from these onsite surface water bodies. The inspectors assessed whether the licensee was properly accounting for discharges from these surface water bodies as part of their effluent release reports.

The inspectors assessed whether on-site ground water sample results and a description of any significant on-site leaks/spills into ground water for each calendar year were documented in the Annual Radiological Environmental Operating Report for the radiological environmental monitoring program or the Annual Radiological Effluent Release Report for the RETS.

For significant, new effluent discharge points (such as significant or continuing leakage to ground water that continues to impact the environment if not remediated), the inspectors evaluated whether the ODCM was updated to include the new release point.

# b. Findings

No findings were identified.

# .7 <u>Problem Identification and Resolution</u> (02.07)

#### a. Inspection Scope

Inspectors assessed whether problems associated with the effluent monitoring and control program were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. In addition, they evaluated the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving radiation monitoring and exposure controls.

b. Findings

No findings were identified.

# 4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Physical Protection

- 4OA1 <u>Performance Indicator Verification</u> (71151)
  - .1 Unplanned Scrams per 7000 Critical Hours
    - a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours PI for Units 1 and 2 for the first quarter 2012 through the fourth quarter 2012. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator narrative logs, CRs, event reports, and NRC Integrated IRs for January 1 through December 31, 2012, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned scrams per 7000 critical hours samples as defined in IP 71151-05.

b. Findings

No findings were identified.

- .2 Unplanned Transients per 7000 Critical Hours
- a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours PI for Units 1 and 2 for the first quarter 2012 through the fourth quarter 2012. To determine the accuracy of the PI data reported during those periods,

Enclosure

PI definitions and guidance contained in NEI Document 99-02, were used. The inspectors reviewed the licensee's operator narrative logs, CRs, maintenance rule records, event reports, and NRC Integrated IRs for January 1 through December 31, 2012, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned transients per 7000 critical hours samples as defined in IP 71151-05.

b. Findings

No findings were identified.

- .3 Reactor Coolant System Specific Activity
- a. Inspection Scope

The inspectors sampled licensee submittals for the RCS specific activity PI for the period from the first quarter 2012 through the fourth quarter 2012. The inspectors used PI definitions and guidance contained in the NEI Document 99-02, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's RCS chemistry samples, TS requirements, CRs, event reports, and NRC Integrated IRs to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine whether any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze an RCS sample. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two reactor coolant system specific activity samples as defined in IP 71151-05.

b. Findings

No findings were identified.

# .4 <u>Radiological Effluent Technical Specification/Offsite Dose Calculation Manual</u> <u>Radiological Effluent Occurrences</u>

a. Inspection Scope

The inspectors sampled licensee submittals for the RETS/ODCM radiological effluent occurrences PI for the period from the first quarter 2012 through the fourth quarter 2012. The inspectors used PI definitions and guidance contained in the NEI Document 99-02 to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's CAP and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates to determine whether indicator

results were accurately reported. The inspectors also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one RETS/ODCM radiological effluent occurrences sample as defined in IP 71151 05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

#### .1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As part of the various baseline IPs discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

# .2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily CR packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

#### b. Findings

No findings were identified.

# .3 <u>Selected Issue Follow-Up Inspection: Safety Related Bus 2B-04 Supply Breaker</u> Installed with Incorrect Setpoint)

a. Inspection Scope

The inspectors selected the factors relating to the installation of the safety related supply breaker to 480V bus 2B-04 with an incorrect setpoint as an issue for further review.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

# Safety-Related Bus 2B-04 Supply Breaker Installed with Incorrect Setpoint

<u>Introduction</u>: A finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when the supply breaker to SR bus 2B04 tripped prematurely. Specifically, on June 6, 2011, when energizing pressurizer heaters, the feeder breaker to SR 480V bus 2B04 opened due to an over-current condition. The licensee determined that the setpoint for the breaker was incorrectly set at 2000 amps versus 3000 amps as required.

Description: On June 6, 2011, when energizing pressurizer heaters, the feeder breaker to SR 480 volt bus 2B04, opened due to an over-current condition. Investigation of the issue found that the over-current trip setpoint, which was required to be set at 3000 amps, was incorrectly set at 2000 amps. The inspectors reviewed the work order (WO) and related analysis and determined that a technician introduced a human performance error when the breaker setpoint was set at 2000 amps, but recorded the setpoint as being set at 3000 amps. Specifically, on February 22, 2011, WO 00359726-02 was performed for installation of the breaker into the supply cubicle of bus 2B04. Step 5 of WO 00359726-02 required the technician to set the Amptector on the breaker to the setpoint required for the cubicle where the breaker was to be installed using procedure RMP 9369-1, "Westector/Amptector Overload Setpoint Check On Low Voltage Breakers." The licensee determined that a human performance error was made when the technician logged the setpoint as 3000 amps, yet left the setting at 2000 amps when setting up the breaker using RMP 9369-1. The inspectors determined that instrument air compressors, standby steam generator (SG)/auxiliary feedwater (AFW) pumps, SW pumps, low head safety injection (SI) system, and the containment sump recirculation capability for one or both units were impacted by the loss of the bus. The inspectors also determined that the supply breaker to bus 2B04 was a SR component subject to the requirements of 10 CFR Part 50, Appendix B.

The licensee entered this issue into the CAP as AR01657810, and performed an associated root cause analysis, which determined that the cause of the issue was that, "breaker maintenance was not performed with the technical rigor commensurate of the importance of a safety-related feeder breaker." The trip setpoint on the breaker was immediately corrected, and this action restored compliance with the design requirements. The licensee initiated additional corrective actions to revise the

maintenance procedure to list the task as a high risk activity and to add a verification step relative to the setpoint adjustments.

<u>Analysis</u>: The inspectors determined that the failure to establish a breaker trip setpoint commensurate with the application and as required by procedure 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 associated with the Mitigating Systems Cornerstone attribute of human 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 availability and reliability of both safety and non-safety related systems that respond to initiating events and powered from SR bus 2B04 were degraded when the supply breaker was installed with a trip setpoint that was too low.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A, Exhibit 2, for the Mitigating Systems Cornerstone, to evaluate the significance of the finding for Unit 1. The inspectors answered "Yes" to Exhibit 2, Question A.3, because the finding represented an actual loss of function of a single train for greater than its TS-allowed outage time. As a result, a detailed risk evaluation was required.

A RIII SRA performed the detailed risk evaluation using the NRC's Standardized Plant Analysis Risk (SPAR) model, Revision 8.15, for Point Beach Unit 1. The SRA modified the SPAR model prior to performing the evaluation to reflect revised SW system PRA success criteria and also to reflect alignment of standby SG pump P-38A to Unit 1 because Unit 2 was shut down during the period the degraded plant condition existed.

To estimate the change in CDF due to the finding, the SRA used an exposure time of 77 days because the breaker with incorrect settings was installed in the plant from March 23, 2011 until June 7, 2011. The exposure time was determined in accordance with the Risk Assessment of Operational Events Handbook (RASP) Volume 1 – Internal Events, Revision 2.0, January 2013, Section 2.0.

An incorrect breaker setting for breaker 2B52-25B, the feeder breaker to 2B04, had an impact on the risk for Unit 1 because of the important shared equipment that is ultimately powered from 2B04, notably SW pumps P32D and P32E, instrument air compressor K-2B, service air compressor K-3B, battery charger D-08, and standby SG pump P-38B. A Unit 1 initiating event could result in a demand for the shared mitigating equipment, potentially resulting in the trip of 2B52-25B and loss of that equipment, if existing loading on the bus was sufficiently high that operation of the shared loads would cause the breaker to exceed the as-found trip setting of 1810 amps.

The finding was modeled as a failure of the normally closed breaker in the open position. The SRA determined that re-closure of the breaker to recover 2B04 equipment was possible using AOP 18B, "Train B Equipment Operation," and Operating Instruction (OI) 35B, "Electrical Equipment General Information." The procedures direct an operator to evaluate the cause of bus de-energization, open all the breakers on 2B04, and then re-close the feeder breaker and load breakers as necessary. The SPAR-H Human Reliability Analysis Method, NUREG/CR-6833, was used to evaluate the human error probability (HEP) for failing to re-close the breaker. The SRA estimated an HEP of 2.2E-2 assuming that for both diagnosis and action, the only performance driver was Stress, which was assumed to be high.

Using these assumptions, the  $\Delta$ CDF for internal event risk contribution for the 77-day exposure period was estimated to be 9E-7/yr. This result was determined to be bounding because the evaluation assumed the breaker would trip in response to any Unit 1 initiating event. Realistically, the breaker would only trip if the bus loading exceeded 1810 amps, and not all postulated plant configurations would result in bus loading exceeding this value. Evaluating all possible plant configurations to develop a conditional probability of exceeding the setpoint of the breaker was not practical and ultimately not necessary because the bounding SDP calculation resulted in a finding of very low safety significance. The dominant sequence was a Unit 1 transient, which results in the opening of breaker 2B52-25B, followed by a failure to re-close the breaker, and subsequent failure of AFW due to random component failures and operator error.

In accordance with IMC 0609, Appendix A, the SRA evaluated the external event and large early release frequency (LERF) risk contributions because the internal event ∆CDF was greater than 1.0E-7/yr. The potential risk contribution from LERF was screened using IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," because Point Beach has a large dry containment, and the dominant core damage sequence did not involve SG tube rupture or inter-system LOCA events. For external events, the SRA performed a qualitative evaluation by reviewing the licensee's IPEEE, dated June 30, 1995. In this review, the SRA considered the risk impact to Unit 1 of the potential opening of breaker 2B52-25B in response to seismic or internal fire events. Seismic event risk contribution was determined to be negligible due to the low initiating event frequency. The fire risk contribution was also screened because the dominant fire risk scenarios generally relied on the turbine-driven AFW pump and SW pumps fed from other power sources. Also, the fire response procedures provided guidance for electrical system lineup and loading similar to the procedures reviewed for recovery credit in the internal event risk analysis.

The inspectors and the SRA used IMC 0609, Appendix G, "Shutdown Significance Determination Process," to evaluate the significance of the incorrect setting for breaker 2B52-25B for Unit 2. During the period of time the breaker was installed in the plant, Unit 2 was in Modes 4, 5, and 6. An incorrect breaker setting for breaker 2B52-25B had an impact on the shutdown risk for Unit 2 because of the important equipment supported by 2B04, notably charging pump 2P-2C, CCW pump 2P-11B, and RHR pump 2P-10B. The incorrect breaker setting impacted the availability of 2B04. Using checklists 3 and 4 of Appendix G, Attachment 1, the SRA determined that a Phase 2 evaluation was required, because power availability guidelines were not met which could impact decay heat removal and inventory control functions. For the Phase 2 evaluation, the RIII SRA determined that for the majority of the 77-day exposure period, the plant was in plant operating state 1, a condition in which the plant relies on the RHR for decay heat removal, and one or more SGs are available; or in plant operating state 2, a condition in which SGs are not available. In all cases, the plant was in a late time window (TW-L) and decay heat was relatively low.

The SRA determined that the finding potentially impacted the Loss of RHR and Loss of Reactor Inventory (LOI) initiating events, and evaluated these events using Worksheets 6 and 9 of IMC 0609, Appendix G, Attachment 2, "Phase 2 Significance

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Determination Process Template for PWR During Shutdown." The RHR and reactor inventory control (FEED) functions of the event trees were potentially affected by a trip of breaker 2B52-25B. The SRA reviewed outage information provided by the licensee that indicated for the majority of the exposure period, train A RHR and other multiple RCS inventory trains were available. Also, since the breaker could be re-closed, the train B equipment was recoverable. Given the low decay load, available equipment, and potential recovery of the breaker, the SRA concluded that full mitigation credit for the functions and credit for recovery were appropriate. The result of the Phase 2 assessment using these assumptions was a change in CDF less than 1E-6, which was a finding of very low safety significance.

The finding has a cross-cutting aspect in the area of human performance, work practices, human error prevention techniques, because the licensee failed to implement peer-checking techniques commensurate with the safety significance of the task (H.4(a)). Specifically, a peer check was not used to validate that the SR trip setpoint of the bus 2B04 supply breaker was accurately set.

<u>Enforcement</u>: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented instructions and procedures appropriate to the circumstances and shall be accomplished in accordance with these instructions and procedures.

Contrary to the above, on February 22, 2011, the licensee failed to establish the correct breaker trip setpoint for the bus 2B-04 supply breaker as prescribed by documented instructions and procedures appropriate to the circumstances. Specifically, on February 22, 2011, the licensee established an incorrect setpoint of 2000 amps rather than 3000 amps for breaker 2B52-25B, an Appendix B component, as required by procedure RMP 9369-1, "Westector/Amptector Overload Setpoint Check On Low Voltage Breakers."

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was of very low safety significance (Green) and was entered into the licensee's CAP as AR01657810, "2B-04 Safeguards 480V Bus was De-energized," to address recurrence. (NCV 05000301/2013002-06, Safety-Related Bus 2B-04 Supply Breaker Installed with Incorrect Setpoint).

#### .4 <u>Selected Issue Follow-Up Inspection: Failure to Follow Operability Evaluation Process</u> for a Degraded Containment Liner

#### a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors reviewed a corrective action item documenting an evaluation of leakage associated with a hole in the SW system inside containment. The inspectors reviewed the CR and related corrective actions, and selected this issue for a more in-depth review.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

#### b. Findings

#### Failure to Follow Operability Evaluation Process for a Degraded Containment Liner

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," 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.

<u>Description</u>: On October 8, 2012, a through-wall failure of the common SW return line from Unit 1, reactor cavity cooler B (1HX-30B), resulted in a 10 gallons per minute (gpm) SW leak inside containment. The licensee entered TS limiting condition for operation (LCO) 3.6.1 at 10:55 P.M. on October 8, 2012, for the containment being inoperable as a result of the leak. Subsequently, the licensee determined that the cause was a through-wall leak on the SW return piping from 1HX-30B, the containment cavity cooling coil. The LCO was exited at 3:03 A.M. on October 9, 2012, when 1HX-30B was isolated by closing the associated heat exchanger supply (1SW-205) and return (1SW-214) isolation valves. The licensee initiated AR01811100, "Through Wall Leak on the Common Discharge SW Line," to assess the condition. The licensee closed this action request because the affected system was isolated. After the isolation valves were closed, the licensee exited the LCO without an assessment of the impact of the loss of the closed system inside containment on containment operability. The inspectors noted that related isolation valves were not 10 CFR Part 50, Appendix J, leak-tested relative to the containment allowable leakage (L<sub>a</sub>).

Between October 8 and October 16, 2012, the inspectors discussed the issue with regional management, the Office of Nuclear Reactor Regulation (NRR), and the licensee because the licensee's evaluation of operability appeared incomplete. On October 17, 2012, the licensee generated a new CR, AR01814163, "Lessons Learned Related to SW Leak to 1HX-30B1-B4." This CR documented that there was "some vagueness in the structure and basis for TS 3.6.1 and 3.6.3 have led to a need to provide additional review and clarity." Additionally, AR01814163 initiated a risk evaluation and indicated that a prompt operability evaluation was needed to assess the impact on  $L_a$ . This action request provided the licensee with a second opportunity to assess the nonconforming condition relative to the TS requirements.

The inspectors reviewed the licensee's completed assessment of operability associated with AR01814163 on October 23, 2012, and found that it did not assess the condition relative to the requirements contained within Appendix J and multiple industry standards; referenced documents previously identified by the licensee as requiring revision; and failed to reconcile several discrepancies between licensee documents, including the containment leak rate testing program, the referenced TS, the TS basis, and the FSAR.

Licensee procedure PI-AA-205, Step 4.4.6, required that a prompt operability determination (POD) be documented and attached to the CR during periods when equipment is operable but degraded. For the SW leak inside containment on October 8, 2012, the licensee did not perform a POD for the degraded SW piping, which

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was an extension of the containment liner. Additionally, procedure EN-AA-203-1001, "Operability Determination/Functionality Assessments," Step 4.6, and the related forms required the licensee to, "Identify Current Licensing Basis function(s) and performance requirements, including TSs, FSAR, emergency operating procedures (EOPs), NRC Commitments, or other appropriate information." The identification of these items would require them to be evaluated during the assessment. These requirements demonstrated that performing an accurate evaluation of operability was within the licensee's ability to accomplish.

The inspectors determined that an appropriately performed POD would have identified that testing of the isolation valves or the performance of an evaluation of the impacts on  $L_a$  related to the size of the hole in the piping was required. The inspectors discussed with the licensee these observations along with the noted deficiencies in the evaluation performed for AR01814163. The licensee indicated that, based on the identified issues, the time needed to complete the corrective actions or to perform an evaluation of the condition to the requirements would have exceeded the allowed completion time of the LCO. This conclusion by the licensee indicated to the inspectors that the licensee exited the TS 3.6.1 action statement prematurely. As a result of the inspectors' inquiries, the licensee submitted LER 05000266/2012-005-00, "Potential Operation Prohibited by Technical Specifications."

During the weekend of October 26, 2012, the licensee entered containment and replaced the section of SW piping which had the through-wall leak. The licensee performed appropriate testing on the piping and declared the system operable.

The inspectors discussed these conclusions with the licensee. Immediate actions to restore compliance were the replacement and testing of the degraded piping. The licensee entered the underlying issue into the CAP on February 26, 2013, as AR01851688, "Inadequate Containment Operability Evaluation After SW Leak," in response to the inspectors' concerns. Proposed actions to address recurrence of the underlying issue (the inadequate operability evaluation) included an evaluation of the untimely operability evaluation and relating causes along with an apparent cause evaluation (ACE) of the issue.

<u>Analysis</u>: The inspectors determined that the lack of a CR or other documented operability evaluation that appropriately reconciled the potential loss of containment (i.e. the breach in the SW system, a closed system that was an extension of the containment liner) constituted a performance deficiency which was within the licensee's ability to foresee, and which should have been prevented. Therefore, the issue warranted further review.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, because it was associated with the Barrier Integrity Cornerstone attribute of 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. Specifically, information to support that containment was operable was unavailable.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3. The inspectors determined that the breach in the SW system, a closed system considered an extension of the containment liner, was an actual breach in the

containment boundary as described in Table 2. The inspectors answered "Yes" to Question 1 in IMC 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," dated June 19, 2012, 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, "Phase 2 Risk Significance – Type B Findings at Full Power," dated May 6, 2004, 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 (Green).

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.

<u>Enforcement</u>: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states in part the activities affecting quality shall be prescribed by documented instructions and procedures of a type appropriate to the circumstance and shall be accomplished in accordance with those instructions and procedures. Point Beach procedure PI-AA-205, Step 4.4.6, required that a prompt operability determination (POD) be documented and attached to the CR during periods when equipment is operable but degraded.

Contrary to the above, on October 8, 2012, the licensee failed to accomplish activities affecting quality in accordance with established procedures. Specifically the licensee failed to perform a POD for degraded SW piping in containment, an Appendix B system that was an extension of the containment, as required by procedure PI-AA-205, Step 4.4.6.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was of very low safety significance (Green) and was entered into the CAP as AR01851688 to address recurrence (NCV 05000266/2013002-07; Failure to Follow Operability Evaluation Process for a Degraded Containment Liner).

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

# .1 (Closed) Licensee Event Report 05000266/2012-003-00: 2B-04 Safeguards 480V Bus De-Energized

a. Inspection Scope

Limiting Condition Operation Completion Times Exceeded During Periods of Safety-Related Bus 2B04 Inoperability

On June 6, 2011, when energizing pressurizer heaters, the feeder breaker to SR 480V bus 2B04 opened due to an over-current condition. Upon discovery the licensee entered the applicable LCOs, declared the related equipment inoperable, and researched the failure. Investigation of the issue found that the over-current trip setpoint for the supply

breaker to the bus was required to be set at 3000 amps, but was incorrectly set at 2000 amps. The licensee subsequently replaced the affected breaker with a breaker that had the correct trip setting and exited the LCO.

The inspectors reviewed the cause of the issue for the historical period of inoperability and determined that the licensee did not have a prior opportunity to foresee and correct the issue prior to it being self-revealed on June 6, 2011; therefore, no violation of TSs was identified. The cause of the historical issue and associated Green NCV are discussed in Section 4OA2.4, "Safety Related Bus 2B-04 Supply Breaker Installed with Incorrect Setpoint," of this report. Documents reviewed are listed in the Attachment to this report. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

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

Introduction: The inspectors identified a Severity Level IV (SL-IV) NCV of 10 CFR 50.73(a)(1), "Licensee Event Report System," and an associated finding of very low safety significance (Green) 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 SR electrical bus 2B04, "Unit 2 480V Safeguards Bus."

<u>Description</u>: On June 6, 2011, the feeder breaker to bus 2B04 tripped open after energizing a pressurizer heater group. Subsequently, the licensee determined that a breaker with an inappropriate trip setting was installed into the bus on March 23, 2011.

In the fall 2011, the inspectors identified that the licensee had potentially failed to submit an LER in accordance with 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v)(D). As a result of the inspectors' inquiries, the licensee reviewed the reporting requirements and submitted LER 05000266/2012-003-00 on August 28, 2012.

The inspectors identified that the licensee performed testing and evaluations in June and July 2011, that supported past operability based on risk assumptions and historical plant configurations for the period between March 23 and June 7, 2011. The inspectors determined that the use of risk and historical approaches did not correctly assess past operability relative to the design and current licensing basis (CLB); the licensee incorrectly concluded that the bus was operable. The inspectors determined that the incorrect application of risk and historical information, versus the CLB, to assess past operability was contrary to the industry adopted expectations established in Regulatory Issue Summary 2005-20, "Information to Licensees Regarding Two NRC Inspection Manual Sections On Resolution of Degraded and Nonconforming Conditions and On Operability," and the associated Inspection Manual Chapter Part 9900 Technical Guidance, Chapter STSODP, "Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." Related supporting sections of the Part 9900 Technical Guidance included, but were not limited to Sections: 3.4, "Fully Qualified," 7.4, "Final Corrective Action," and C.6, "Use of Probabilistic Risk Assessment in Operability Decisions."

The licensee entered this condition in the CAP as AR01851639, "Late Licensee Event Report," to address recurrence. Preliminarily, the licensee attributed the cause of the late report to an incorrect technical assessment of operability. The inspectors concluded that the related CRs should address the cause of the issue.

<u>Analysis</u>: The inspectors determined that 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 was contrary to the requirements of 10 CFR 50.73(a)(1) and was a performance deficiency (PD) which was within the licensee's ability to foresee, and should have been prevented.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, because if left uncorrected, would have the potential to lead to a more significant safety concern because untimely reporting of issues hinders the NRC's ability to perform timely and adequate regulatory reviews of the cause and underlying issues. The inspectors determined traditional enforcement was applicable because the issue had the potential for impacting regulatory functions and constituted a SL-IV NCV, consistent with the examples contained in Section 6.9 of the Enforcement Policy. This traditional finding is associated with a finding that has been evaluated by the SDP and communicated with an SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider the regulatory process impact. Thus, although related to a common regulatory concern, it is necessary to address the finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the underlying finding.

The inspectors identified that the licensee performed testing and evaluations in June and July 2011, which supported past operability based on risk assumptions and historical plant configurations for the period between March 23 and June 7, 2011. The inspectors determined that the use of risk and historical approaches did not correctly assess past operability relative to the design and CLB. As such, the licensee incorrectly concluded that the bus was operable and, as a result, failed to recognize than an LER was required. The inspectors determined that the incorrect application of risk and historical information to assess past operability was the underlying issue and a performance deficiency which constituted a finding that was able to be evaluated using the significance determination process.

The inspectors evaluated the underlying issue for the finding using IMC 0609, Appendix A, because it was associated with the Mitigating Systems Cornerstone. The inspectors answered "No" to the Appendix A, Exhibit 2 questions; therefore the underlying issue screened as being of very low safety significance (Green).

The finding has a cross-cutting aspect in the area of problem Identification and resolution, because the licensee failed to thoroughly evaluate the problem such that the resolutions properly addressed operability and reportability (P.1(c)).

#### Enforcement:

Title 10 CFR 50.73(a)(1) states in part that the holder of an operating license under this part shall submit an LER for any event of the type described in this paragraph within 60 days after the discovery of an event.

Contrary to the above, on June 6, 2011, the licensee identified an event related to the de-energized safeguards 480 volt Bus 2B04, an event reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v)(D), and the licensee failed to submit an LER until August 28, 2012, a period in excess of 60 days.

This violation is being characterized as an SL-IV NCV, consistent with Section 6.9 of the Enforcement Policy. This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because the underlying issue was of very low safety significance (Green) and this issue was entered into the CAP as AR01851639, to address recurrence (NCV 05000266/2013002-08; Failure to Submit LER 05000266/2012-003-00, "2B-04 Safeguards 480V Bus De-Energized," within 60 days).

- .2 (Closed) Licensee Event Report 05000301/2011-002-00; Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside of Technical Specification Values
- a. Inspection Scope

This event, which occurred on June 6, 2011, the details of which are described below, was reviewed by the inspectors. Documents reviewed as part of this inspection are listed in the Attachment to this report. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside of Technical Specification Values

Introduction: The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," for the licensee's failure to incorporate a design-basis drift calculation and appropriate tolerances for calibrating the Engineered Safety Features Actuation System (ESFAS) steam line pressure (SLP) dynamic compensation modules into a calibration procedure used to assure TS requirements. Specifically, since the design-basis drift calculation for determining the settings of the lead/lag values for the modules did not address dynamic settings, and the procedure tolerances were too restrictive, the calibration instructions were insufficient to ensure the modules' ability to perform in accordance with TS requirements.

<u>Description</u>: During the Unit 2 RFO (U2R31) and while in the refueling mode (MODE 6), the licensee identified that four-out-of-six of the Unit 2 ESFAS SLP channel dynamic compensation modules' as-found lead time constant values were below the TS-required values of greater than or equal to 12 seconds. This condition was identified during performance of procedure 2ICP0 4.001E, "Reactor Protection and Safeguards Analog Racks Steam Pressure Refueling Calibration."

The specified safety functions of these modules were to ensure the actuation of SI upon a steam line low pressure condition, and were credited as an anticipatory primary trip in the steam pipe rupture and steam line break outside containment accident analyses. Additionally, the modules were considered an anticipatory backup trip in the steam line break inside containment accident analysis.

The TS LCO 3.3.2, "ESFAS Instrumentation," Table 3.3.2-1, Function 1.e, indicated that three channels are required per steam line to be operable to provide safety function during MODES 1 and 2, and in MODE 3 when pressurizer pressure is greater than 1800 pounds per square inch gauge where a secondary side break or stuck open valve could result in rapid depressurization of the steam lines. The function is not required to be operable in MODES 4, 5 or 6. To meet this requirement, the lead constant value was required to be greater than or equal to 12 seconds, and the lag value is required to be less than or equal to 2 seconds. The ESFAS SLP instruments monitor main SLP and actuate on a 2-out-of-3 (2/3) SLP low condition to provide protection against a main steam line break, main feedwater line break, or an inadvertent opening of an SG relief or safety valve. A failure of an SLP channel will not create a control failure that would result in a low SLP SI event.

The inspectors reviewed the previous LERs (LERs 05000266/2007-003-00; 05000301/2007-003-00, and 05000266/2010-001-00), referenced in the current LER, that identified similar issues with lead/lag time constants for SLP instruments dynamic compensation modules. The inspectors reviewed the corrective actions and the ACE, and determined that licensee's assessment of the factors leading up to this event appeared adequate. As documented in the ACE, the licensee attributed this failure to not performing the design-basis drift calculation in a timely manner because the setpoint values and tolerances within the calibration procedure 2ICP0 4.001E were a direct output from the design-basis calculation.

The inspectors noted that the design-basis drift calculation for the SLP compensation modules was revised; the pertinent calibration procedures were revised to reflect the appropriate dynamic settings and setpoint tolerances; and the SLP compensation modules were refurbished with new setpoints and tolerances; and a performance monitoring plan was implemented.

The licensee initiated AR01629378 in response to the inspectors' concerns.

<u>Analysis</u>: The inspectors determined that the failure to incorporate a design-basis drift calculation and appropriate tolerances for calibrating the ESFAS SLP dynamic compensation modules into a calibration procedure was contrary to the requirements of 10 CFR Part 50, Appendix B, and was a performance deficiency. Specifically, since the design-basis drift calculation for determining the settings of the lead/lag values for the modules did not address dynamic settings, and the procedure tolerances were too restrictive, the calibration instructions did not ensure the modules' ability to perform in accordance with TS requirements.

The inspectors determined that the finding was more than minor in accordance with IMC 0612, Appendix B, because it was associated with the Mitigating Systems Cornerstone attribute of Design Control, and adversely impacted 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, Attachment 0609.04, Tables 2 and 3, and Appendix A, Exhibit 2, for the Mitigating Systems Cornerstone. The

inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating SSCs, and functionality. Specifically, since the calculation basis for setting the lead/lag values for the modules did not address dynamic settings, calibration procedure 2CP 04.001E was not adequate to ensure the modules would be calibrated to values that ensured the ability to perform in accordance with TS requirements. The licensee was able to provide evidence through an analysis performed in an evaluation for reportability that the ESFAS modules remained capable of performing their specified safety functions despite being out of tolerance.

This finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee failed to take corrective action in a timely manner for the issue identified in previous LER 05000266/2010-001-00 and the associated ACE (P.1(d)). Specifically, the licensee failed to thoroughly evaluate, put barriers in place, and resolve the identified issue in a timely manner.

<u>Enforcement</u>: Title 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," requires, in part, that all testing required to demonstrate that SSCs will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents.

Contrary to the above, from August 12, 2010, until March 3, 2011, the licensee failed to perform and incorporate a design-basis drift calculation and incorporate appropriate tolerances for the calibration of the ESFAS SLP dynamic compensation modules. Specifically, the design-basis calculation did not address dynamic calibration settings and adequate tolerances. As a result, multiple TS-required instruments were calibrated in a manner that did not allow them to remain within tolerance during their mode of applicability.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was of very low safety significance (Green) and was entered into the CAP as AR01629378 to address recurrence (NCV 05000301/2013002-09; Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside of Technical Specification Values).

- .3 <u>Notice Of Unusual Event Due to a Loss of Offsite Power to Unit 1 Safety-Related Busses</u> for Greater Than 15 Minutes
- a. Inspection Scope

The inspectors reviewed the plant's response to a Notice of Unusual Event due to a loss of offsite power to Unit 1 SR busses for greater than 15 minutes. Documents reviewed are listed in the Attachment to this report.

This event follow-up review constituted one sample as defined in IP 71153-05.

# b. Findings

No findings were identified.

#### 4OA5 Other Activities

# .1 (Closed) Unresolved Item 05000266/2012005-05; 05000301/2012005-05, Unmonitored Neutron Exposure Evaluation

The URI described a condition where additional information was needed by the inspectors to assess neutron dose to various plant personnel from the storage of a neutron source outside of the RCA. This item is discussed in Section 2RS4 and is closed by NCV 05000266/2013002-04; 05000301/2013002-04, "Failure to Survey for Neutron Dose from Source Storage." This URI is closed.

- .2 (Closed) NRC Temporary 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns"
- a. Inspection Scope and Documentation

The inspectors verified that licensee's walkdown packages contained the elements as specified in the NEI 12-07, "Walkdown Guidance," document, accompanied the licensee on the walkdowns to verify that the licensee confirmed the flood protection features, and independently performed walkdowns, as described in IR 05000266(301)/2012005. As a result of the walkdowns several noncompliance's with current licensing requirements, issues that could challenge risk-significant equipment, and observations regarding the licensee's ability to mitigate the consequences were identified. This Temporary Instruction (TI) is closed.

b. Findings

# (1) Failure to Establish A Procedure to Implement Wave Run-Up Design Features

<u>Introduction</u>: A preliminary finding of yet undetermined safety significance and an associated Apparent Violation (AV) of 10 CFR Part 50, Appendix B, Criterion V, was identified by the inspectors for the licensee's failure to establish procedural requirements to implement external flooding wave run-up protection design features as described in the FSAR.

<u>Description</u>: As an extent of condition review from URI 05000266/2012002 01; 05000301/2012002 01, and in response to TI-187, the inspectors reviewed the licensing basis information and found that the FSAR described external flooding design features and mitigating strategies to protect against a wave run-up flooding event. This flooding event is postulated to occur when waves from Lake Michigan break over the bank and enter the circulating water pump house and the turbine buildings through existing non-watertight doors in each structure. The FSAR states that the site would protect the turbine building and pumphouse by using sandbags, concrete jersey barriers, or equivalent barriers placed on the north and south sides of the circulating water pumphouse just to the west of the walkway. Licensee procedure PC 80 Part 7, "Lake Water Level Determination," implements these features as described in the FSAR. The inspectors reviewed PC 80 Part 7 and found that guidance was only provided for installation of concrete jersey barriers.

The licensee performed a walkthrough of the site's flooding procedure in response to the NRC's 50.54(f) "Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident," letter which requested flood area walkdowns and procedure walkthroughs.

During the performance of TI-187, the inspectors reviewed the licensee's "Wave Run-Up Mitigation Package" and observed the PC 80 Part 7 walkthrough. During the walkthrough, the licensee discovered that the jersey barriers could not be installed as described in the procedure. Specifically, the area where the jersey barriers were to be installed was not a hardened flat surface; therefore, when the jersey barriers were installed, the barriers were not flush with the ground, and a 4-inch gap was created, which allowed water intrusion past the barriers. The licensee also discovered that the jersey barriers could not be installed against one another due to the existence of rebar at either end of the barriers. This created a gap between each barrier that allowed further water intrusion between each of the barriers. Also, the bottom of the jersey barriers were cut to allow them to be moved by use of a forklift, creating holes in the bottom of each barrier that allowed water intrusion past the barriers. Additionally, the length of the barriers was insufficient to provide protection as needed. An additional 8.42-foot jersey barrier on each side of the pumphouse would need to be installed beyond what was previously identified to provide the needed protection against wave run-up. Finally, the barriers were to be installed in areas that were identified as B.5.b equipment staging areas and consideration of the design interfaces was not assessed. The licensee entered the identified deficiencies into the CAP as AR01809095, AR01824582, AR01807841, and AR01806402.

Although the licensee identified this issue described above in response to the NRC's 50.54(f) letter, the inspectors found that the licensee did not assign prompt corrective actions to fix the deficient barriers until prompted by the inspectors; the licensee did not consider the amount of time needed to erect the barriers until prompted by inspectors; and the licensee did not recognize the need to perform additional evaluations for crediting the use of sandbags and jersey barriers until prompted by inspectors. The licensee documented these concerns in AR01853775, AR01853779, and AR01849522, as well as updated the above-listed CRs and corrective actions due dates to ensure the wave run-up design features were fully evaluated. Therefore, this finding will be characterized as NRC identified because the inspectors added value in the identification of previously unknown weaknesses in the licensee's initial classification, evaluation, and corrective actions associated with this issue.

The licensee initiated AR01856327 to document the inspectors' issues of concern.

<u>Analysis</u>: The inspectors determined that the licensee's the failure to establish appropriate procedural requirements to implement external flooding wave run-up protection design features as described in the FSAR, was a performance deficiency warranting further evaluation.

The inspectors determined that this finding was more than minor in accordance with IMC 0612, Appendix B, 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 provide appropriate procedure directions for 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 for the Mitigating Systems Cornerstone. The inspectors answered "Yes" to the Appendix A, Exhibit 2.B question for external event mitigating systems (Seismic/Fire/Flood/Severe Weather Protection Degraded), because it represented loss or degradation of equipment designed to mitigate a flooding event. Specifically, the jersey barriers were determined to not be of sufficient length to provide protection and allowed water intrusion past the barriers. The inspectors answered "No" to Exhibit 4, Question 1, because, if it is assumed the barrier was completely failed or unavailable, the loss of the barrier by itself during the event it was intended to mitigate, would not cause a plant trip or initiating event, would not degrade two or more trains, and would not degrade one train of a system that supports a risk significant system or function. The inspectors answered "Yes" to Exhibit 4, Question 2, because the finding involved the loss of any safety function identified by the licensee through IPEEE analysis. Specifically, the licensee's IPEEE credits sandbags to protect against external flooding events. Since the licensee substituted the use of jersey barriers in place of sandbags, the jersey barriers were determined to not be able to perform the safety function as described. Therefore, the inspectors determined that a detailed risk evaluation was needed.

At the completion of this inspection period and by the time of the issuance of the inspection report, the significance determination of a finding was not yet completed. Therefore, the safety significance of this finding remains "To Be Determined" (TBD), and will be based on the outcome of the detailed risk evaluation being performed in accordance with IMC 0609, Appendix A. This finding does not present an immediate safety concern in that the licensee has taken corrective action and revised the procedure to implement the 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 additional jersey barriers and sandbags have been purchased and pre-staged. The licensee implemented compensatory measures while assessing potential long-term corrective measures to be developed and implemented.

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)). Specifically, the licensee had the opportunity to identify this condition had the licensee thoroughly evaluated the extent of condition questions regarding the URI on flooding when identified by the inspectors in 2012.

<u>Enforcement:</u> Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these procedures. The licensee's established quality assurance program is described in the QATR FPL 1, Revision 12, dated July 3, 2012. The QATR, Section A.7, "Regulatory Commitments," states that Appendix A of Regulatory Guide (RG) 1.33, Revision 2, dated February 1978, is used as guidance in establishing the types of procedures required for plant operation and support. The RG 1.33, Appendix A, requires procedures for "combating emergencies and other significant events" including acts of nature such as flooding events.

An AV of 10 CFR Part 50, Appendix B, Criterion V, has been identified, in that, prior to September 29, 2012, the inspectors identified that the licensee had not established appropriate procedural requirements for "combating emergencies and other significant events," including acts of nature such as flooding events. Specifically, the licensee did not establish procedural steps to appropriately implement external flooding wave run-up protection design features as described in the FSAR.

The licensee entered this issue into the CAP as AR01856327. Completed corrective actions include: procedure revision; installation of jersey barriers in conjunction with the use of sandbags; modified existing jersey barriers; and, sandbags and additional jersey barriers have been purchased and pre-staged. This is being characterized as an AV in accordance with the NRC's Enforcement Policy, and its final significance will be dispositioned in separate future correspondence (AV 05000266/2013002-10; 05000301/2013002-10, Failure to Establish A Procedure to Implement Wave Run-Up Design Features).

#### (2) <u>Failure to Update the Final Safety Analysis Report to Include Changes to the External</u> <u>Flooding Mitigation Features</u>

<u>Introduction</u>: 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.

<u>Description</u>: The FSAR described an external flooding scenario postulated to occur through simultaneous melting of a large amount of snow in spring combined with sustained heavy rains. The FSAR stated that the combined amount of water for both would be an approximately 1,400 acre-feet, which would be dissipated by natural drainage of the site, a storm sewer system, and an interceptor ditch. The inspectors determined that the interceptor ditch no longer existed with the installation of the G-03/G-04 building on March 26, 1996, and that the FSAR was never updated to reflect this change. The licensee documented the discrepancies in AR01809075 and AR01809087. The licensee generated AR01819241 to update the FSAR to reflect these changes and other changes deemed necessary as a result of TI-187.

<u>Analysis</u>: The inspectors determined that 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 was a performance deficiency warranting further evaluation.

The inspectors used IMC 0612, Appendix B, and determined that the performance deficiency could be dispositioned using traditional enforcement. Specifically, the inspectors determined that the issue was considered as traditional enforcement because it had the potential to impact 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 be able to 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.

Additionally, since this performance deficiency was dispositioned using traditional enforcement, there is no cross-cutting aspect assigned.

<u>Enforcement</u>: Title 10 CFR 50.71(e) requires, in part, licensees to periodically update the FSAR, originally submitted as part of the application for the operating license, to assure that the information included in the report contains the latest information developed. This submittal shall include the effects of all changes made in the facility or procedures as described in the FSAR.

Contrary to the above, on October 2, 2012, the licensee failed to update the FSAR to assure that the information included in the report contained 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 failure to update the FSAR as required by 10 CFR 50.71(e) is characterized as an SL-IV violation. This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy, because it was entered into the CAP as AR01819241 to address recurrence (NCV 05000266/2013002-11; 05000301/2013002-11, Failure to Update the External Flooding Mitigation Features in the FSAR).

- .3 (Closed) NRC Technical Instruction-2515/188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdown"
  - a. Inspection Scope and Documentation

The inspectors accompanied the licensee on the seismic walkdowns and area walkbys, verified that the licensee confirmed the seismic features associated with the seismic walkdown equipment list items, and performed independent walkdowns, as described in NRC IR 05000266(301)/2012005. Observations made during the walkdowns that could not be determined to be acceptable were identified by the licensee, but not entered into the CAP until prompted by the inspectors. The licensee completed entering these observations during this quarterly inspection period. Subsequently, the inspectors verified that these observations were documented in the licensee's CAP for evaluation. This TI is closed.

b. Findings

No findings were identified.

# 4OA6 Meetings, Including Exit

.1 Exit Meeting Summary

On April 3, 2013, the inspectors presented the inspection results to members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

#### .2 Interim Exit Meetings

Interim exits were conducted for:

- the inspection results for the areas of occupational dose assessment; radiation monitoring instrumentation; radioactive gaseous and liquid effluent treatment; and RCS specific activity and RETS/ODCM radiological effluent occurrences PI verification with Mr. L. Meyer on February 15, 2013; and
- the inspection results of the Triennial Review of Heat Sink Performance inspection with Mr. C. Trezise on March 1, 2013.

The inspectors confirmed that none of the potential report input discussed was considered proprietary. Proprietary material received during the inspection was returned to the licensee.

# 4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy, for being dispositioned as an NCV.

# Longstanding Issues Regarding Thermal Performance Testing Were Not Corrected

The licensee identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, XVI, "Corrective Actions." This regulation requires, in part, that measures shall be established to assure conditions adverse to quality, such as deficiencies and non-conformances, are promptly identified and corrected. Contrary to this, on September 27, 2011, the licensee identified that since at least January 16, 2006, a known condition adverse to quality have not been corrected. Specifically, the licensee noted the actions taken to correct the previously identified failure to complete thermal performance testing of the SFP and CCW heat exchangers have been untimely. Completion of these tests is required to meet licensee's commitments made in response to GL 89-13 and License Renewal. However, the evaluation of the test results have not been completed because the licensee identified some errors associated with the test uncertainties. As a result, the licensee initiated AR01690475, performed an ACE, issued a Nuclear Oversight finding, and planned to complete the thermal performance testing of the affected heat exchangers by summer 2013.

The performance deficiency 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. Specifically, the failure to complete the tests has the potential for an unacceptable condition to go undetected affecting the operability of the affected heat exchangers. The inspectors evaluated the issue using IMC 0609, Attachment 0609.04, Tables 2 and 3, and IMC 0609, Appendix A, Exhibit 2 for the Mitigating System Cornerstone, and answered "Yes" to Question A.1 of the mitigating SSCs and functionality questions; therefore, the issue screened as very low safety significance (Green).

ATTACHMENT: SUPPLEMENTAL INFORMATION

# SUPPLEMENTAL INFORMATION

# **KEY POINTS OF CONTACT**

#### Licensee

L. Meyer, Site Vice President C. Trezise, Engineering Director

K. Locke, Licensing

S. Clark, Engineering Supervisor

Nuclear Regulatory Commission

J. Cameron, Branch Chief, Division of Reactor Projects, Branch 6 A.M. Stone, Branch Chief N.J. Féliz Adorno, Reactor Engineer V. Myers, Health Physicist

# LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

# <u>Opened</u>

05000266/2013002-01; 05000301/2013002-01URIFlooding Impact of Loose Items Found on Roof Tops (1R01.1)05000266/2013002-02; 05000301/2013002-02NCVFailure to Properly Implement a Compensatory Fire Watch As Required by the Fire Protection Program (1R05)05000266/2013002-03; 05000266/2013002-03;NCVResponse for Loss of Spent Fuel Pool Cooling Did Not Consider the Most Limiting Time to Boil (1R07.2)05000266/2013002-04; 05000301/2013002-04;NCVFailure to Survey for Neutron Dose from Source Storage (2RS4.1)05000266/2013002-05; 05000301/2013002-05NCVFailure to Establish Procedures to Respond to Probable Maximum Precipitation Event (1R01.3)05000301/2013002-06NCVSafety Related Bus 2B-04 Supply Breaker Installed with Incorrect Setpoint (4OA2.4)05000266/2013002-07NCVFailure to Follow Operability Evaluation Process for a Degraded Containment Liner (4OA2.5)
05000301/2013002-01(1R01.1)05000266/2013002-02; 05000301/2013002-02NCVFailure to Properly Implement a Compensatory Fire Watch As Required by the Fire Protection Program (1R05)05000266/2013002-03; 05000301/2013002-03NCVResponse for Loss of Spent Fuel Pool Cooling Did Not Consider the Most Limiting Time to Boil (1R07.2)05000266/2013002-04; 05000301/2013002-04NCVFailure to Survey for Neutron Dose from Source Storage (2RS4.1)05000266/2013002-05; 05000301/2013002-05NCVFailure to Establish Procedures to Respond to Probable Maximum Precipitation Event (1R01.3)05000301/2013002-06NCVSafety Related Bus 2B-04 Supply Breaker Installed with Incorrect Setpoint (4OA2.4)05000266/2013002-07NCVFailure to Follow Operability Evaluation Process for a Degraded Containment Liner (4OA2.5)
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05000266/2013002-07 NCV Failure to Follow Operability Evaluation Process for a Degraded Containment Liner (4OA2.5)
Degraded Containment Liner (4OA2.5)
05000266/2013002-08   SL-IV   Failure to Submit LER 05000266/2012-003-00, "2B-04
NCV Safeguards 480V Bus De-Energized," Within 60 Days
(4OA3.1)
05000301/2013002-09 NCV Engineered Safety Feature Steam Line Pressure
Dynamics Modules Discovered Outside of Technical
Specification Values (4OA3.2)
05000266/2013002-10; AV Failure to Establish A Procedure to Implement Wave Run-
05000301/2013002-10 up Design Features (4OA5.2(1))
05000266/2013002-11; SL-IV Failure to Update the External Flooding Mitigation
05000301/2013002-11 NCV Features in the FSAR (4OA5.2(2))

# <u>Closed</u>

05000266/2013002-02; 05000301/2013002-02	NCV	Failure to Properly Implement a Compensatory Fire Watch As Required by the Fire Protection Program (1R05)
05000266/2013002-03;	NCV	Response for Loss of Spent Fuel Pool Cooling Did Not
05000301/2013002-03		Consider the Most Limiting Time to Boil (1R07.2)
05000266/2013002-04	NCV	Failure to Survey for Neutron Dose from Source Storage
05000301/2013002-04		(2RS4.1)
05000266/2012002-01;	URI	External Flooding Design and Mitigation Strategies
05000301/2012002-01		Maintained and Tested Appropriately (1RO1.3)
05000266/2013002-05;	NCV	Failure to Establish Procedures to Respond to Probable
05000301/2013002-05		Maximum Precipitation Event (1RO1.3)
05000301/2013002-06	NCV	Safety-Related Bus 2B-04 Supply Breaker Installed with
		Incorrect Setpoint (4OA2.4)
05000266/2013002-07	NCV	Failure to Follow Operability Evaluation Process for a
		Degraded Containment Liner (4OA2.5)
05000266/2012-003-00	LER	2B-04 Safeguards 480V Bus De-Energized (4OA3.1)
05000266/2013002-08	SL-IV	Failure to Submit LER 05000266/2012-003-00, "2B-04
	NCV	Safeguards 480V Bus De-Energized," Within 60 Days
		(4OA3.1)
05000301/2011-002-00	LER	Engineered Safety Feature Steam Line Pressure

		Dynamics Modules Discovered Outside of Technical Specification Values (40A3.2)
05000301/2013002-09	NCV	Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside of Technical Specification Values (4OA3.2)
05000266/2012005-05; 05000301/2012005-05	URI	Unmonitored Neutron Exposure Evaluation (40A5.1)
2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (4OA5.2)
05000266/2013002-11;	SL-IV	Failure to Update the External Flooding Mitigation
05000301/2013002-11	NCV	Features in the FSAR (40A5.2(2))
2515/188	TI	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdown (4OA5.3)

# LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

# 1R01 Adverse Weather Protection

- 10 CFR 50.59 EVAL 2009-012-01; Change To CLB Concerning External Flooding; March 16, 2012
- AOP-13C; Severe Weather Conditions; Revision 25 And 27
- Accession No. 7908220114; IE Bulletin No. 79-24, Frozen Lines; September 27, 1979
- AOP-13A; Circulating Water System Malfunction; Revisions 14 And 20
- AOP-13C; Severe Weather Conditions; Revisions 27 And 29
- AR01834793; Meeting The Requirements For Ice Melt Mode Of Operation
- AR01838090; Evaluate Need For Ice Melt To Prevent Freezing At Intake Crib
- AR01750241; INPO IER Level 4 12-2S: Fort Calhoun Flooding Lessons
- AR01750334; 1Q12 NRC URI Site Drainage Design Features
- AR01752639; Yard/Beach Drain Inspection
- AR01763006; North East Switchyard Is Not Draining
- AR01763937; Aggregate Review Needed For Rain/Water Intrusion
- AR01768212; Drainage Culverts Partially Obstructed
- AR01768245; Yard Drain Just South Of Warehouse 3 Is Partially Clogged
- AR01768247; Question Regarding AOP-13C
- AR01780464; (P)AOP-13C Severe Weather Conditions
- AR01785426; Unit 1 Façade Flooding
- AR01785471; 1Z-30 U1 Façade Elevator Flood
- AR01785551; Water Drainage Issue In Northside Switchyard
- AR01785729; Long Standing Equipment Issue Façade Flooding
- BG AOP-13A; Circulating Water System Malfunction; Revisions 14 And 17
- BG AOP-13C; Severe Weather Conditions; Revision 14
- CE 01768247-01; Question Regarding AOP-13C; June 4, 2012
- CRN/ECN Initiation Optional Form For CRN 262425 Rev. 1; Façade Building Where MFIV Located Is Susceptible To Outdoor Ambient Temperature Changes; October 21, 2011
- BG AOP-13C; Severe Weather Conditions; Revision 15
- Cold Regional Technical Digest No. 91-1; Frazil Ice Blockage Of Intake Trash Racks; March 1991
- DBD-T-41; Hazards Internal And External Flooding (Module A); Revision 8; September 3, 2010
- Drawing 26877; Roof Drainage Roof Plan; Revision 04
- Drawing 26878; Roof Drainage Sections; Revision 04
- Drawing 52623; Roof Plan; Revision A
- Final Report From AECOM Technical Services, Inc.; Drainage System Inspection, Point Beach Nuclear Plant, Two Rivers, Wisconsin; June 2010
- FSAR Section 2.10; Environmental Conclusions; UFSAR 2010
- FSAR Section 2.6; Meteorology; UFSAR 2008
- FSAR Section 1.3; General Design Criteria; UFSAR 2010
- LP No. PBN LP0151; Auxiliary Operator License Operator Initial; Completed May 5, 2011
- NP 7.7.9; Facilities Monitoring Program; Revision 7

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- NP 1.9.6; Plant Cleanliness And Storage; Revision 45
- NP 7.7.9; Facilities Monitoring Program; Revision 8
- NP 8.4.11; Penetrating Barriers; Revision 19
- NP 8.4.17; PBNP Flooding Barrier Control; Revision 14
- NRC Generic Letter 89-22; Potential For Increased Roof Loads And Plant Area Flood Runoff Depth At Licensed Nuclear Power Plants Due To Recent Change In Probable Maximum Precipitation Criteria Developed By The National Weather Service; October 19, 1989
- NRC IN 96-36; Degradation Of Cooling Water Systems Due To Icing; June 12, 1996
- NRC IN 98-02; Nuclear Power Plant Cold Weather Problems And Protective Measures; January 21, 1998
- NUREG-1437; Generic Environmental Impact Statement For License Renewal Of Nuclear Plants; Supplement 23
- PBF-2124; PBNP PPCS Forebay And Pump Bay Level Alarm Setpoints
- PBNP IPE Section 3.3.8; Internal Flooding Analysis
- PC 80 Part 7; Lake Water Level Determination; Revision 3
- PBNP IPEEE Section 5.2; Roof Analysis
- PBNP, Units 1 And 2; Applicant's Environmental Report Operating License Renewal State; February 2004
- QF-1010-01a; Needs Assessment Worksheet For AOP 13C Severe Weather Revision 26; Completed August 3, 2012
- Requisition No. 6118-M-70; Specification 6118-M-70, Rev. 0, Specification 6118-G-1, Rev. 1, Specification 6118-E-32, Rev. 2, Form G-321-C; Revision 0
- R01755773; Yard / Beach Drain Inspection
- Sargent & Lundy Engineering Report; Maximum Deep Water Waves & Beach Run-Up At Point Beach; January 14, 1967
- SEG No. PBN LOC 12D 001S; Ice Melt; Revision 0
- WO 00289437; CWPH Storm Drains
- WO 00356773; Inspect And Clean Storm Water Run Off

# 1R04 Equipment Alignment

- 1ICP 06.015; Auxiliary Coolant System (Non-Outage); Revision 2
- 2-CL-CC-001; Component Cooling 2; Revision 14
- ACE 01715842; On 12/13/2011, Shell Side Outlet Throttle Was Errantly Manipulated During Performance Of IT-13 Train A, 2P-11A; Revision 02; November 20, 2012
- AR01841126; Unable To Perform Requested PM On CC-722A
- AR01844903; Breaker Discovered Out Of Checklist Position
- AR01848969; SW-288 And 289 Alignment
- AR01853561; Resin/Water Spill During Resin Transfer Misposition
- CL 11A G-01; G-01 Diesel Generator Checklist; Revision 25
- CL 11A G-03; G-03 Diesel Generator Checklist; Revision 8
- CL 5C; Spent Fuel Pool Cooling And Refueling Water Circulating Pump Normal Operation Valve Lineup; Revision 12
- CL 7A; Safety Injection System Checklist Unit 1; Revision 33
- Drawing 018979; Auxiliary Coolant System, Unit 2; Revision 45
- Drawing 018982; Auxiliary Coolant System, Unit 1; Revision 42
- Drawing 110E017 SH. 2 redrawn; P&ID Safety Injection System; Revision 31
- Drawing 302274; Starting & Service Air System Diesel Generator Building; Revision 12
- Drawing 302280; Glycol Cooling System Diesel Generator Building; Revision 11
- IT 13 Train A; 2P-11A, Component Cooling Water Pump And Valves Unit 2; Completed March 12, 2013

- IT 13 Train B; 2P-11B, Component Cooling Water Pump And Valves Unit 2; Completed March 5, 2013
- NP 1.9.6; Plant Cleanliness And Storage; Revision 42
- NP 2.1.3; Administrative Control Of Red Locks, Lead Seal Wires, And Padlocks On Plant Equipment (Valves, Switches, Etc.); Revision 10
- OI 35A; Standby Emergency Power Alignment; Revision 13
- ORT 3A; Safety Injection Actuation With Loss Of Engineered Safeguards AC (Train A) Unit 1; Revision 45
- Safety Monitor; Units 1 And 2; February 18, 2013
- Station Log; Various Dates From February 16 To February 19, 2013

# 1R05 Fire Protection

- ACE 01129771-01; Non-Compliance With Appendix R Current Licensing Basis That Had Not Been Previously Identified; August 15, 2008
- AR01313539; 2007 FPFSA App R Exemption SER Errors
- AR01318705; RIS 2006-10 Noncompliant SSD Man. Actions Fire Areas A61/71
- AR01318784; RIS 2006-10 Noncompliant SSD Manual Actions Fire Area A01-F
- AR01341034; A23N/G01 Appendix R Non-Compliance
- AR01345411; Appx. R Common Enclosure Concern
- AR01347157; Appendix R Common Enclosure Unanalyzed Condition
- AR01388936; Fire Door And Sprinkler System NFPA Code Issues
- AR01698623; Non Functional Appendix R Equipment
- AR01711816; Fireworks Computer Not Properly Set Up For Off-Normal Signal
- AR01773702; Compensatory Fire Watches
- AR01819449; Fire Watches Potentially Missed
- AR01832365; OM 3.27 Control Of Fire Protection And Appendix R Safe Shutdown
- AR01837632; Multiple Fire Protection Related NCVs And NRC Issues
- AR01855430; Proposed NRC Violation Fire Watches Missed
- CE 1819449-01; RCA Became High Radiation Areas; November 16, 2012
- Drawing 285012; FEP 4.1, Aux Building & Containment El. 8'; Revision 06
- Drawing 290583; Fire Protection For Site Plan; Revision 11
- Drawing 290585; Fire Protection For Turbine Building, Aux Building & Containment; Revision 25
- Drawing 290586; Fire Barrier Locations For Turbine Building, Aux Building & Containment; Revision 11
- Drawing 294856; Fire Protection System Diesel Generator Building; Revision 12
- Drawing 295554; Fire Emergency Procedure 4.27 Diesel Generator Building; Revision 01
- Drawing 295555; Fire Protection For Diesel Generator Building; Revision 04
- FEP 4.0; Fire Emergency Plan; Revision 5
- FEP 4.1; PAB West And Central-El. (-)19'; (-)5'; 8' CCW, CS/SI, AFW; Revision 12
- FEP 4.27; Emergency Diesel Generator Building (G-03/G-04); Revision 5
- FHAR Appendix C; Revision 8
- FHAR; fire Hazards Analysis Report; Revision 6
- FHAR; Revisions 6 And 8
- FOP 1.2; Potential Fire Affected Safe Shutdown Components; Revision 21
- FP Index; Fire Protection Manual; Revision 68
- FPER Fire Protection Evaluation Report; Revision 13
- L-2011-235; Letter From NextEra Energy To NRC; Subject: Request For Extension Of Enforcement Discretion And Commitment To Submittal Dates For 10 CFR 50.48(c) License Amendment Request; June 23, 2011

- L-HU-05-023; Letter From NMC To NRC; Subject: Letter Of Intent To Transition 10 CFR 50.48(c) – National Fire Protection Association Standard NFPA 805, "Performance-Based Standards For Fire Protection For Light Water Reactor Electric Generating Plants," 2001 Edition; November 30, 2005 - NP 1.9.14; Fire Protection Organization; Revision 13 NP 1.9.9; Transient Combustible Control; Revision 20 - OM 3.27; Control Of Fire Protection & Appendix R Safe Shutdown Equipment; Revision 45 - OM 3.27; Control Of Fire Protection & Appendix R Safe Shutdown Equipment; Revision 47 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; April 11, 2008, 1425 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; April 30, 2008, 1005 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; August 10, 2007, 0900 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; August 27, 2007, 0855 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; August 29, 2007, 0401 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; August 8, 2008, 2100 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; December 2, 2011, 1830 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; December 2, 2010, 1530 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; December 11, 2012, 1105 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; February 4, 2008, 1700 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; July 1, 2011, 0827 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; June 16, 2008, 1710 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; March 3, 2012, 0415 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; March 5, 2007, 1800 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; May 11, 2010, 1300 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; May 13, 2011, 1900 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; May 13, 2010, 1042 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; May 15, 2009, 1900 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; May 26, 2010, 1920 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; May 7, 2012, 2323 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; November 13, 2012, 1542 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; November 29, 2012, 1102 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 14, 2012, 0137 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 12, 2007, 1400 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 1, 2012, 2030 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 22, 2012, 1430 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 29, 2009, 1205 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 20, 2011, 1910 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; October 5, 2012, 0330 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; September 30, 2012, 1230 - PBF-2058; Fire Protection/Appendix R Fire Surveillance; September 7, 2012, 1117 - PBF-2058B; Fire Round Performance Sheet-PAB; November 1 To November 2, 2012 - PBSAP 1.16; Compensatory Measure Fire Watch (CMFW); Revision 10 (PCR #01790495)

#### 1R06 Flood Protection

- AR01779109; Verify Ground Cables intact

- AR01782307; Z-065A Unistrut Collapse During Performance Of WO 40171797

- AR01788782; Manhole Z-067A Found With Submerged Cable

- AR01791933; Potential Cableway Manhole Alarm & Sump Performance Issue

- AR01793085; Control Panel C-326 For Manhole 66A And 67A In Alarm
- AR01793399; Z-065B; Manhole #2 Degraded Cable Supports
- AR01843559; C-311 Manhole Detection Alarm In

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- AR01844353; License Renewal Commitment Not Communicated Effectively
- AR01845815; Inadequate Drainage Path, North End Of Switchyard
- AR01846848; C-317 Z-65C Manhole #3 Alarm Control Panel Battery Trouble
- DG-E11; Cable And Raceway Data System; Revision 5
- Drawing 319759; Yard Area Diesel Generator Ductbank Plain; Revision 08
- ER-AA-106; Cable Condition Monitoring Program; Revision 3
- Manhole Inspections Frequencies As Of March 13, 2013
- Model WO Package Manhole Inspections
- NP 7.7.28; Cable Condition Monitoring Program; Revision 3
- Topical Report TR10-69; Cable Again And Monitoring; May 2010

# 1R07 Heat Sink

- 129187-M-0014; Evaluation Of The SFP Cooling System For EPU Operations; December 11, 2008
- 1-SOP-VNCC-001; 1W-1A1 Accident Fan Recirculation Unit Draining, Filling And Venting; February 4, 2013
- 2002-003; Service Water System Design Calculation; December 14, 2007
- 98-0020; CFMC SW Flow Versus Temperature Requirements; July 12, 2011
- AOP-8F; Loss Of Spent Fuel Pool Cooling; September 20, 2011
- AOP-9A; Service Water System Malfunction; February 18, 2013
- AR01149827; Significant New Algae Fouling Of CC HX-12A; May 18, 2009
- AR01370994; Delay In CCW HX And SFP Cooler GL 89-13 Inspections; August 28, 2009
- AR01608247; SW Temperature Limit not Specified for 2HX-15C1-C8; January 12, 2011
- AR01627535; HX-15D Motor Cooler Plugging During Inspection; March 9, 2011
- AR01632807; 2HX-015C Motor Cooler GL 89-13 Inspection Results; March 23, 2011
- AR01837285; HX-13A Spent Fuel Pool Heat Exchanger Has Leak
- AR01837905; Additional Investigation Shows Through Wall Hole On HX-13A
- AR01840562; Extent Of Condition Inspection
- AR01852015; REI 47.0 Does Not Account For Uncertainty in SW Temp Reading
- AR01852200; Reason For Using Preliminary GL 89-13 Results Not Documented
- AR01852201; GL 89-13 SFP HX PM Change Not Implemented
- AR01852518; NRC UHS inspection FSAR Statement Not Complete
- AR01853974; Uncertainty Not Explicitly Accounted For In Two Calculations
- Condition Reports Generated During the Inspection:
- ECT of CFMC HX-15A; November 13, 2012
- ECT of SFPC HX-13A; February 14, 2010
- ECT of SFPC HX-13A; January 29, 2013
- ECT of SFPC HX-13B; August 11, 2011
- File No. 178PBC/6288/L12043; Correspondence From Zachry Nuclear Engineering, Inc. To NextEra Energy Point Beach; Subject: Heat Exchanger Test Support & Analysis – Preliminary Results For Point Beach CCW And SFP Heat Exchanger Tests; December 21, 2012
- GL 89-13 Program Document; October 17, 2012
- HX-13A Silting And Cleaning Trends; January 16, 2013
- HX-13A Tube Plugging & Tube Plugging Limits; January 16, 2013
- IT 07A; P32A Service Water Pump Quarterly; January 8, 2013
- IT 07B; P32B Service Water Pump Quarterly; January 8, 2013
- IT 07C; P32C Service Water Pump Quarterly; January 8, 2013
- IT 07D; P32D Service Water Pump Quarterly; February 13, 2013
- IT 07E; P32E Service Water Pump Quarterly; February 13, 2013
- IT 07F; P32F Service Water Pump Quarterly; February 13, 2013

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- IT 07G; Service Water Valves Quarterly; December 18, 2012
- Long Range Guided Wave Ultrasonic Pipe Screening Results; December 6, 2011
- M-09334-243-SW.1; Evaluation Of Waterhammer In 2" Fan Motor Cooler Lines; June 9, 1997
- M-207; Service Water P&ID Sheet 1; Revision 79
- M-207; Service Water P&ID Sheet 1A; Revision 33
- M-207; Service Water P&ID Sheet 3; Revision 66
- NPM 2013-0042; 2013 Service Water System ISI Program (SWP) Annual Report; January 21, 2013
- NPM 2013-0043; 2010 Service Water System ISI Program (SWP) Annual Report; January 18, 2013
- NPM 2013-0048; 2011 Service Water ISI Program (SWP) Annual Report; January 21, 2013
- OI 155; Chemical Treatment Of Service Water For Mussels; November 26, 2012
- OI 173; Performance Test For Spent Fuel Pool Heat Exchangers HX-13A/B; January 24, 2013
- OI 70; Service Water System Operation; November 25, 2012
- PC 97 Part 1; SW Flush Of 1HX-015A1-A8 Containment Fan Cooler Coils And 1HX-015A Motor Cooler Unit 1; March 3, 2011
- PGT-2003-1305; Evaluation Of The PBNP SFP HX's Thermal Performance Margin At The Design Limiting Conditions; November 7, 2006
- PGT-2003-1495; Evaluation Of The PBNP SFP HX's Thermal Performance As A Function Of SW Temperature For Single Train Operation; October 3, 2011
- PGT-2005-1068; PBNP SFP HX-013A And HX-013B Thermal Performance Test Data Evaluation And Uncertainty Analysis; January 27, 2006
- POD 1374038; HX-12D CCW HX Bryozoa Fouling; October 19, 2009
- POD 1712999; U2 CFC Accident Fan Cooler DRN VLVS; December 9, 2011
- POD1674124; POD SW Pinhole Leak SW 321 Valve Downstream; August 2, 2011
- REI 47.0; Spent Fuel Pool Decay Heat Determination; September 28, 2012
- SFP HX Thermal Performance Test Results; January 7, 2013
- Station Log; January 8, 2013
- SWP; Service Water In-Service Inspection Program; January 16, 2009
- WO 40096355; HX-013A open/Close HX For Eddy Current Inspection
- WO380012-01; 2HX-15D Motor Cooler Inspection; March 9, 2011
- WO394785-01; 1HX-15A Motor Cooler Inspection; October 10, 2011
- WO394786-01; 2HX-15A Motor Cooler Inspection; March 10, 2011
- WO394787; 2HX-15B Motor Cooler Inspection; March 21, 2011
- WO394787-01; 1HX-15B Motor Cooler Inspection; October 20, 2011
- WO394788-01; 2HX-15C Motor Cooler Inspection; March 19, 2011
- WO40095829-01; 2HX-15C Motor Cooler Inspection; November 16, 2012
- WO40095830; 2HX-15D Motor Cooler Inspection; November 7, 2012
- WO40095832-01; 2HX-15A Motor Cooler Inspection; November 7, 2012
- WO40095832-01; Bio/Silt Fouling Inspection for 2HX-015A; November 7, 2012
- WO40095832-01; Bio/Silt Fouling Inspection for 2HX-015A; November 7, 2012
- WO40096316-01; 1HX-015C MOTOR COOLER INSPECTION; October 18, 2011
- WO40096318-01; 1HX-15D Motor Cooler Inspection; October 9, 2011
- WO401056683; 2HX-15B Motor Cooler Inspection; November 19, 2012
- Zachry No. 051742; Preliminary Results Thermal Performance Testing Of HX-013A And HX-013B; October 31, 2009

## <u>1R11 Licensed Operator Regualification Program</u>

- AR01842464; LOCT Segment 13A Training Delayed, Simulator Malfunction
- AR01844599; Simulator PPCS Malfunction During LOCT 13A Crew Evaluation

- AR01854115; Unexpected Loss Of 345KV Line 151
- AR01854155; NRC Concern Regarding Risk For Unit 2 With Line 151 OOS
- AR01854592; G-05 GAS Generator Trip On High Vibration
- AR01854870; D72-500-02C Breaker Found Tripped On LOGS
- AR01856011; LOC Initial NARS Form Error During LOC As-Left
- AR01856015; Alignment Of Fleet EP Procedures With The Site Procedures
- AR01856019; LOC Segment 13A As-Left EP Improvement Items
- AR01856022; NRC Resident Comments From LOC As-Left Observation
- ARs Associated With Drills Generated Over Last 3 Years; February 3, 2010 To August 20, 2012
- CAs From DEP Opportunities Over Last 3 Years; Compiled February 4, 2013
- CE 01149144-01; Safety Monitor Environmental Test Factors Table For STA Evaluation Use, Revision 5; February 28, 2013
- DEP Performance Indicator December 2011; January 4, 2013
- DEP Performance Indicator December 2012; January 4, 2013
- EP-AA-101-1000; Nuclear Division Drill And Exercise Procedure; Revision 4
- EPG 1.0; Emergency Preparedness Drill Guideline; Revision 22
- EPG 1.1; Performance Indicators (PI's) Guideline; Revision 7
- NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 6; October 2009
- Nextera Energy Cycle 12B EP Update
- NP 10.3.7; On-Line Safety Assessment; Revision 28
- Point Beach Open simulator Work Orders (SWO's); February 1, 2013
- Safety Monitor; Units 1 And 2; March 5 To March 7, 2013
- SEG PBN LOC 13A 001E; 13A As-Left Scenario; January 23, 2013
- Station Log; March 6 To 7, 2013
- TR-AA-104; Nextera Energy Fleet Licensed Operator Continuing Training Program; Revision 2
- TR-AA-230-1007; Conduct Of Simulator Training And Evaluation; Revision 0
- TWR Simulator Report; January 30, 2013

#### 1R12 Maintenance Rule Effectiveness

- ACE 011527604-01; Maintenance On 2P-002C Charging Pump For Seal Replacement; August 12, 2009
- ACE 01156194-01; 1P-002B Charging Pump Seal Package Replaced Due To High Seal Leakage; October 13, 2009
- AR01362778; 2009 Charging Pump Health And Material Condition
- AR01368344; 2P-2C, Charging Pump, Seal Re-Work
- AR01371834; 1P-2B Charging Pump Short Seal Life
- AR01373502; 2009 Charging Pump Health And Material Condition
- AR01388115; OE 30445 And 30512 Applies To PB: Excess Letdown HX Concerns
- AR01796352; Need To Overhaul Charging Pump Seal Assemblies
- AR01797846; Charging Pump Variable Req Drive Fan Motor Pigtail Splice
- AR01798170; Rebuild Charging Pump Seal
- AR01844264; Procedure Step Not Completed Correctly In 2ICP2.1YL
- CV System Health Report; Units 1 And 2; April 1 To December 31, 2012
- FSAR Section 9.3; Chemical And Volume Control system (CV); UFSAR 2010
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- Function List For CV Chemical And Volume Control; August 21, 2012
- Function List For Reactor Coolant; January 30, 2013

- Function List For VNCRD Control Rod Drive Cooling H&V By Maintenance Rule; February 5, 2013
- Maintenance Rule Program Health Report; Systems 1 And 2; October 1 To December 31, 2012
- PBF-7029; System: RC; January 11, 2002
- PBF-7029; System: VNCRD; 1998; Completed June 2, 1998
- Performance Criteria Assessments For RC Since 1/1/2008; January 30, 2013
- Performance Criteria Assessments For VNCRD Since 11/2013; January 31, 2013
- Performance Criteria For VNCRD For 2012; February 5, 2013
- RC System Health Report; Unit 2; October 1 To December 31, 2012
- RWP No. 13-1000; U1 Containment At Power Entries; December 20, 2012
- Survey Map Unit 1 Hatch; October 26, 2012
- WO Package 40212340; 1W-003AM / Perform Additional Greasing And Vibe Check

1R13 Maintenance Risk Assessments and Emergent Work Control

- AOP-13C; Severe Weather Conditions; Revision 29
- AR01813316; Unplanned Entry Into On-Line Risk Orange Follow-Up
- AR01828369; Improvement To Online Safety Monitor Environmental Factors
- AR01833813; Qualitative Risk Not Performed By WWC As Required NP 10.3.7
- AR01833813; Qualitative Risk Not Performed By WWC As Required NP 10.3.7
- AR01834675; NRC Minor Violation Failure To Monitor Risk
- AR01835930; SA-SI, K-3B SA Compressor Unloader, Has Air Leak
- AR01836281; K-3A Trip
- AR01836283; K-3A Tripped Offline
- AR01846509; G-05 Gas Generator Tripped Off Line
- AR01846529; 0\_SOP-13.8KV-H02 H-02, 13.8KV Bus (Temp Change)
- AR01846997; Evaluation Of F89-112 Circuit Switcher
- AR01847136; 1F89-112 Motor Operator Decision
- AR01847140; G-05 Functionality During Severe Weather
- AR01847252; Safety Monitor Risk Higher For Unit 2 Than Unit 1
- BG AOP-13C; Severe Weather Conditions; Revision 15
- CE 01834675-01; NRC Minor Violation For Failure To Monitor Risk; January 3, 2013
- Daily Status Report; Units 1 And 2; February 8, 2013
- Drawing: PBNP Electrical Power Distribution
- FP-PE-PRA-02; PRA Guideline For Model Maintenance And Update; Revision 5
- Hypothetical Risk Management Worksheet; Units 1 And 2; January 29, 2013
- LMS ID PBN LOC 13A 007L; LOC/AOC Segment 13A; Revision 0
- NP 10.3.5; Risk Monitoring And Risk Management; Revision 2
- NP 10.3.6; Shutdown Safety Review And Safety Assessment; Revision 41
- NP 10.3.7; On-Line Safety Assessment; Revision 27
- NRC RG 1.200; An Approach For Determining The Technical Adequacy Of Probabilistic Risk Assessment Results For Risk-Informed Activities; March 2009; Revision 2
- OM-AA-101-1000; Shutdown Risk Management; Revision 4
- PB Online Project; Adherence Five Day Lookahead; January 28, 2013
- PBNP Daily Status Report; Units 1 And 2; February 1, 2013
- Safety Monitor; Units 1 And 2; Various Dates January 1 To January 31, 2013
- Segment 13A OM-OE; CPE Preparations
- SM Watch Turnover And Shift Notes; February 1, 2013
- Station Log; March 18 To March 20, 2013
- Station Log; Various Dates January 22 To February 1, 2013

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- Tech Spec Equipment OOS And Fire Impairments; January 28 To February 1, 2013

- U1R34 Risk Profile; March 1, 2013

# 1R15 Operability Evaluations

- ANS-56.2, ANSI N271-1976; Containment Isolation Provisions For Fluid Systems; 1977
- ANSI/ANS-56.8-1994; Containment System Leakage Testing Requirements; 1994
- ANSI/ANS-56.8-2002 (R2011); Containment System Leakage Testing Requirements; Reaffirmed August 9, 2011
- AOP-13A; Circulating Water System Malfunction; Revision 20
- AR01809908; New Circ Water Pumps And Permitted Water Withdrawals
- AR01811100; Through Wall Leak On The Common Discharge SW Line
- AR01813766; Tracking For NRC Questions Regarding SW In U1 Containment
- AR01814163; Lessons Learned Related To SW Leak To 1HX-30B1-B4
- AR01816047; Additional Thin Spots In SW Piping Require Evaluation
- AR01816692; Unit 1 CI System MTN Rule Performance Criteria Exceeded
- AR01816824; Potential Incorrect Reference To LCO In CLRT Program
- AR01816840; Perform Walkdown And UT Exams Of Select SW Piping In CTMT
- AR01817192; Large Amount Of Silt, Clay Found Inside SW Piping
- AR01820722; Cavity Cooler Piping Wall Thickness Concerns
- AR01820852; Wrong Size PT Fuse Found Installed In Bus 2B-01
- AR01822116; Concerns With U1 SW Leak And CLRT
- AR01823665; Excessive Seat Leakage On 2CV-369A RHR To Letdown Valve
- AR01828703; Unit 2 Turbine Mechanical Trip Testing Results From ORT 4
- AR01830242; Main Turbine Overspeed Trip Settings
- AR01830827; Potential Violation For Failure To Follow Tech Specs
- AR01833965; Column Anchor Rods Has Lack Of Nut Engagement
- AR01834331; Unexpected Alarm: U2 "B" Circ Pump Cooling Water Flow
- AR01834999; Forebay/Pumpbay Level At ≈ -10Ft During Icemelt Operation
- AR01835921; Unexpected PPCS Priority Alarm For Low Forebay Level
- AR01836120; Lake Level At A Low Level Affecting Forebay PPCS Alarm Value
- AR01836230; Delay In Documenting Condition In AR System
- AR01836899; 2B-03 Partial Ground Condition
- AR01837249; 1Q13 Minor Procedure Violation On AR01833965
- AR01837772; International great Lakes Datum (IGLD) Discrepancy
- AR01838218; Inspect Bus 2B-03 To Locate Partial Ground
- AR01839901; Lack Of Justification For Past Functionality
- AR01851639; Late Licensee Event Report
- AR01851688; Inadequate Containment Operability Evaluation After SW Leak
- AR01851750; Appendix J Reconciliation With PBNP Licensing Basis
- ASME Conference Paper No. PVP2002-1520; Integrated Leak Rate Testing Of Containments: A Regulatory Perspective; 2002
- CLRT Testing Program Basis Document; Revision 12
- DBD-T-38; Containment Isolation; Revision 3
- DBD-T-38; Containment Isolation; Revision 3
- Document Change Tracking Sheet; AOP-13A; Revision 20
- Drawing 080033; Service Water System; Revision 27
- Drawing 275461; Service Water System; Revision 16
- Drawing 49388; 480 V One Line Diagram; Revision 30
- ECR No. 2003-0069; Current Conditions Of U1 Circulating Water And Traveling Water Screen; June 27, 2003

- EN 48402; Reactor Power Exceeded FSAR Analyzed Value; December 4, 2012
- EN-AA-203-1001; Operability Determinations / Functionality Assessments; Revision 8
- EN-AA-203-1001; Operability Determinations / Functionality Assessments; Revisions 8 And 9
- Engineering Disposition; HX-30B SW Piping Containment Isolation Qualitative Risk; October 18, 2012
- FA 01828703; Unit 2 Turbine Mechanical Trip Testing Results From ORT 4; Revision 0; Completed December 1, 2012
- FSAR Section 5.2; Containment Isolation System; UFSAR 2010
- IT 330; Containment Isolation Valves (Cold Shutdown) Unit 1; Revision 18
- IT 335; Containment Isolation Valves (Cold Shutdown) Unit 2; Revision 18
- LER 2012-005-00; Potential Operation Prohibited By Technical Specifications; December 7, 2012
- NDE 700.1; Visual Weld Examination Record; Cont Cavity Clg Coil Discharge SW Piping; October 17, 2012
- NEI 94-01; Industry Guideline For Implementing Performance-Based Option Of 10 CFR Part 50, Appendix J; Revisions 0 And 3-A
- NOAA/NOS/CO-OPS Preliminary Water Level (V1:1) Plot 9087068 Kewaunee, WI; December 12, 2012 To January 1, 2013
- NPC-27957; Letter From Wisconsin Electric Power Company To NRC; Subject: Response To IE Bulletin 80-24, PBNP, Units 1 And 2; January 5, 1981
- NPC-27961; Letter From Wisconsin Electric Power Company To NRC; Subject: Additional Information IE Bulletin 80-24, PBNP, Units 1 And 2; January 13, 1981
- NPC-27975; Letter From Wisconsin Electric Power Company To NRC; Subject: Response To IE Bulletin 80-24, PBNP, Units 1 And 2; February 20, 1981
- OI 58; Leak Testing Of Containment Isolation Valves Unit 1 And 2, General Instructions And Information; Revision 26
- OP 1B; Reactor Startup; Revision 66
- OP-AA-100-1000-10000; Initial Operability Screening Aid; Revision 0
- ORT 26; Letdown Line Unit 2; Revision 16
- PBF-9817; Qualitative Risk Assessment; Completed October 24, 2012
- PBNP Calculation NO. P-89-037; SW System; Completed April 10, 2001
- PI-AA-204; Condition Identification And Screening Process; Revision 18
- PI-AA-205; Condition Evaluation And Corrective Action; Revisions 16 And 19
- POD 01836899; 2B-03 Partial Ground Condition; Revision 0
- POD 181416301; Lessons Learned Related To SW Leak To 1HX-30B1-B4; Revision 0
- Qualitative Risk Assessment; December 4, 2012
- R/R Activity No. 2012-0034; SW Piping HB-19; October 19, 2012
- RG 1.141; Containment Isolation Provisions For Fluid Systems; July 2010, Revision 1
- RG 1.163; Performance-Based Containment Leak-Test Program; September 1995
- Sargent & Lundy LLC Calculation No. 96-0246; Revision 6
- SCR 2013-0001; Revise AOP-13A "Circulating Water System Malfunction" And Revise TRM 3.7.7.C.1; January 4, 2013
- SSINS No. 6820; Accession No. 8008220270; IE Bulletin No. 80-24; Prevention Of Damage Due To Water Leakage Inside Containment; November 21, 1980
- Station Log; January 4, 2013
- Thread Engagement Analysis
- TS 3.6.1; Containment Systems; Unit 1-Amendment No. 201, Unit 2-Amendment No. 206
- TS 3.6.3; Containment Isolation Valves; Unit 1-Amendment No. 201, Unit 2-Amendment No. 206

- TS Bases B 3.6.1; Containment Systems; Unit 1-Amendment No. 231, Unit 2-Amendment No. 236

## 1R18 Plant Modifications

- 0-SOP-13.8kV-H02; H-02, 13.8kV Bus; Revision 20
- OM 3.41; System Status Control; Revision 2
- SCR 2013-0021; Revision of 0-SOP-13.8kV-H02; Revision 20

## 1R19 Post-Maintenance Testing

- AR01837285; HX-13A Spent Fuel Pool Heat Exchanger Has Leak
- AR01837905; Additional Investigation Shows Through Wall Hole On HX-13A
- AR01840562; Extent Of Condition Inspection
- AR01840944; U2 Unexpected Crossover Steam Dump
- AR01841068; IA-1560 Check Valve Is Leaking BY
- AR01841118; Air Leak Identified At 2-OS-1B-S Solenoid Valve
- AR01841372; Inadequate Documentation Of Plant Event
- AR01842215; NRC Minor Violation For Incomplete Recording Of IT 01 TRN
- AR01842938; U2 PZR Pressure Control Issue
- AR01843367; TRM Use Of "Operable" Inconsistent W/NRC Guidance
- AR01847635; NRC Resident Question On G-04 Operability Relative To W-1848B
- Drawing 019002; Instrument Air; Revision 36
- File No. 178PBC/6288/L12043; Correspondence From Zachry Nuclear Engineering, Inc. To NextEra Energy Point Beach; Subject: Heat Exchanger Test Support & Analysis – Preliminary Results For Point Beach CCW And SFP Heat Exchanger Tests; December 21, 2012
- FSAR Section 14.1.12; Likelihood Of Turbine-Generator Unit Overspeed; UFSAR 2006
- FSAR Section 9.7; Instrument Air (IA)/Service Air (SA); UFSAR 2010
- HX-13A Silting And Cleaning Trends; January 16, 2013
- HX-13A Tube Plugging & Tube Plugging Limits; January 16, 2013
- OI 168; Emergency Diesel Generator Operability; Revision 10
- Operations Notebook; EDG Operability; February 14, 2013
- PC 11 Part 5; Semi-Annual Crossover Steam Dump Pilot Valve Periodic Check Unit 2; Completed January 21, 2013
- RMP 9201; Control And Documentation For Troubleshooting And Repair Activities; Completed January 28, 2013
- Safety Monitor; Units 1 And 2; February 11, 2013
- SFP HX Thermal Performance Test Results; January 7, 2013
- Station Log; Various Dates January 8 To February 12, 2013
- TRM 3.7.6; Turbine Overspeed Protection; March 26, 2012
- TS Bases B 3.8.1; AC Sources Operating; Unit 1 Amendment No. 201, Unit 2 Amendment No. 206
- WO 40096355; HX-013A open/Close HX For Eddy Current Inspection
- WO 40211945; IA-01560 Replace Check Valve As Required
- WO Package 40096373; W-184B Grease Fan And Motor Bearings
- Zachry No. 051742; Preliminary Results Thermal Performance Testing Of HX-013A And HX-013B; October 31, 2009

#### 1R20 Outage

- Daily Status Report; Unit 2; March 21, 2013

- Mode Restraint Report; 1R34; March 21 And March 26, 2013
- OP 3A Unit 1; Power Operation To Hot Standby Unit 1; Revision 11
- OP 3B; Reactor Shutdown; Revision 44
- OP 3C Unit 1; Hot Standby To Cold Shutdown Unit 1; Revision 4
- ORT 3A; Safety Injection Actuation With Loss Of Engineered Safeguards AC (Train A) Unit 2; Revision 43
- ORT 3C; Auxiliary Feedwater System And AMSAC Actuation Unit 1; Revision 14
- Outage U1R34 Based On 1/18/13 Schedule
- PB Outage Status Report; March 19, 2013
- PB U1R34 Update; March 21, 2013
- PBNP Shutdown Safety Assessment And Fire Condition Checklist; March 18 To March 20, 2013
- PBNP; Open Prompt Operability Determinations List; December 2012
- Prompt Investigation Report; Incorrect Cables Removed From Head Patch Panel CR01858332
- RWP No. 13-1009 Rev. 00; Shut Down / Start Up Activities; March 7, 2013
- Safety Monitor; Units 1 And 2; Various Dates, March 15 To March 21, 2013
- Station Log; March 15 To March 19 To March 21, 2013

# 1R22 Surveillance Testing

- 2ICP 02.001BL; Reactor Protection And Engineered Safety Features Blue channel Analog 92 Day Surveillance Test; Revision 17; Completed January 29, 2013
- 2-TS-ECCS-002 Train A; Safeguards System Venting (Monthly) Unit 2; Completed January 29, 2013
- 2-TS-RE-001; Power Level Determination Unit 2; Completed February 16, 2013
- 2-TS-RE-001; Power Level Determination Unit 2; Completed February 18, 2013
- 2-TS-RE-001; Power Level Determination Unit 2; Completed February 19, 2013
- AR01833706; Questionable 1P-15A HHSI Pump Test Results
- AR01840537; 1/18/2013, Unit 2 Inside CTMT UT Results
- AR01841249; First Quarter Service Water Pump 1<sup>st</sup> Results
- AR01841703; Change In 2SI-850B Open Stroke Time
- AR01842279; 1/24/2013, Unit 2 Inside CTMT UT Results
- AR01842789; T-173 Not Sampled For Gelling Following Recent Cold Weather
- AR01847582; Found PI-2815 (P-32D Discharge Press) Out Of Tolerance
- AR01848381; Impact Of 2ICP 13.10 VCT Cals On Safety Monitor
- AR01849378; SR 3.3.1.2, NI To Calorimetric Completion Not Timely
- AR08138785; GAMP Program Requirement Not Met
- ASME OM Code-1995; Code For Operation And Maintenance Of Nuclear Power Plants; 1995
- CE 01838785, Assignment 01; GAMP Sentinel Point Inside Containment Not Reset To Monthly As Required; January 29, 2013
- Control Room Miscellaneous Shit Log MODES 1-3, Units 1 and 2; February 18 to 19, 2013
- Drawing 295554; Fire Emergency Procedure 4.27 Diesel Generator Building PBC-209 Sht. 48; Revision 01
- Drawing 302275; Starting Air System Diesel Generator Building, M-209 Sh. 15; Revision 12
- Drawing 302281; Glycol Cooling System Diesel Generator Building; Revision 10
- FSAR Section 6.2; Safety Injection System (SI); UFSAR 2010
- Gas Accumulation Management Program (GAMP); Revision 2
- IT 01 Train A; High Head Safety Injection Pumps And Valves Train A Unit 1; Completed December 17 And December 19, 2012
- IT-07D; P-32D Service Water Pump (Quarterly); Completed February 13, 2013

- IT-45 Train B; SI Valves (Quarterly) U-2; Completed January 10, 2013
- Lab No. V50008910A; Herguth Laboratories Certificate Of Analysis; T-173 New Fuel Oil; October 29, 2012
- ML072910759; NRC Generic Letter 2008-01; Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal, And Containment Spray Systems; January 11, 2008
- Model WO 1000323A; As Of February 6, 2013
- Model WO 1000353A; As Of February 6, 2013
- Model WO 1000361A; As Of February 6, 2013
- Model WO 1000362A; As Of February 6, 2013
- NP 7.4.4; ASME OM Code Pump And Valve Inservice Testing; Revision 9
- OI 168; Emergency Diesel Generator Operability; Revision 10
- OI 55; Primary Leak Rate Calculation; Revision 28
- OI 92A; Fuel Oil Ordering, Receipt Sampling, And Offloading; Revision 22
- PBF-3006; #2 Fuel Oil Acceptance Criteria; Revision 16; Completed December 11, 2012
- PBNP IST Program, 5<sup>th</sup> Interval; Revision 6
- RCS Leakage, Unit 1; February 19 To March 3, 2013
- Station Log; Various Dates From January 28 To February 18, 2013
- Tech Spec 3.5; Emergency Core Cooling Systems (ECCS); Unit 1-Amendment 209; Unit 2-Amendment 214
- Tech Spec Bases 3.5; Emergency Core Cooling Systems (ECCS); Unit 1-Amendment 201; Unit 2-Amendment 206
- Technical Specifications 3.3.1; Reactor Protection (RPS) Instrumentation; Unit 1-Amendment No. 201, Unit 2-Amendment No. 206
- Technical Specifications Bases 3.3.1; Reactor Protection (RPS) Instrumentation; Unit 1-Amendment No. 239, Unit 2-Amendment No. 243
- TS 84; Emergency Diesel Generator G-04 Monthly; Completed February 3, 2013
- Valve ID No. 0DA-00447; PBNP IST Background Valve Data Sheet; December 11, 2009
- Valve ID No. 0DA-00447B; PBNP IST Background Valve Data Sheet; December 11, 2009
- Valve ID No. 0DA-06361A; PBNP IST Background Valve Data Sheet; December 11, 2009
- Valve ID No. 0DA-06361B; PBNP IST Background Valve Data Sheet; December 11, 2009
- Valve ID No. 0DA-06365A; PBNP IST Background Valve Data Sheet; December 11, 2009
- Valve ID No. 0DA-06365B; PBNP IST Background Valve Data Sheet; December 11, 2009
- WO Package 40171414; SEI-06210 Seismic Event Indicator Test

#### 1EP6 Emergency Preparedness Drill

- AR01842464; LOCT Segment 13A Training Delayed, Simulator Malfunction
- AR01844599; Simulator PPCS Malfunction During LOCT 13A Crew Evaluation
- AR01856011; LOC Initial NARS Form Error During LOC As-Left
- AR01856015; Alignment Of Fleet EP Procedures With The Site Procedures
- AR01856019; LOC Segment 13A As-Left EP Improvement Items
- AR01856022; NRC Resident Comments From LOC As-Left Observation
- ARs Associated With Drills Generated Over Last 3 Years; February 3, 2010 To August 20, 2012
- CAs From DEP Opportunities Over Last 3 Years; Compiled February 4, 2013
- DEP Performance Indicator December 2011; January 4, 2013
- DEP Performance Indicator December 2012; January 4, 2013
- EP-AA-101-1000; Nuclear Division Drill And Exercise Procedure; Revision 4
- EPG 1.0; Emergency Preparedness Drill Guideline; Revision 22
- EPG 1.1; Performance Indicators (PI's) Guideline; Revision 7

- NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 6; October 2009
- Nextera Energy Cycle 12B EP Update
- Point Beach Open simulator Work Orders (SWO's); February 1, 2013
- SEG PBN LOC 13A 001E; 13A As-Left Scenario; January 23, 2013
- TR-AA-104; Nextera Energy Fleet Licensed Operator Continuing Training Program; Revision 2
- TR-AA-230-1007; Conduct Of Simulator Training And Evaluation; Revision 0
- TWR Simulator Report; January 30, 2013

## 2RS4 Occupational Dose Assessment

- RCE 01809560-01; Unexpected Dose Rates Outside Of Source Storage Room

## 2RS5 Radiation Monitoring Instrumentation

- AR01226110; Evaluate The Use Of Disc Sources For Calibration Of RMS Liquid Monitors
- HPCAL 3.1.6; RE-223 Monitor Calibration; August 31, 2011
- HPCAL 3.8; Stack Exhaust Monitor Calibration; January 1 And March 14, 2012
- HPIP 7.51; Monthly check of the Radiation Monitoring System; Revision 16

## 2RS6 Radioactive Gaseous and Liquid Effluent Treatment

- AR01691991; Service Water Overboard Sampled During Radioactive Discharge
- AR01694459; Potential Non Conservative Sampling Of WDT and Monitor Tanks
- AR01833004; Outage Activities Outside 26' Hatch
- AR01839597; Potentially Contaminated Steam Release Form
- CAMP 031; Preparation Of Batch Liquid And Gaseous Effluent Permits Using Retscode Software; Revision 12
- Gaseous And Liquid Discharge Permit Packages; Various Dates
- OI 14; Steam Generator Blowdown Operation; Revision 40
- OP 9C; Containment Venting and Purging Unit 1; Revision 7
- RAM 2.1; Radioactive Liquid Effluent Releases; Revision 6
- RAM 3.1; Radioactive Liquid Waste Permits; Revision 17
- RAM 3.2; Radioactive Batch Liquid Releases; Revision 15
- RAM 4.1; Radioactive Continuous Liquid Releases; Revision 9
- RAM 5.1; Radioactive Airborne Effluent Releases; Revision 11
- RAM 6.2; Miscellaneous Steam Releases; Revision 7
- RAM 7.1; Containment Forced Ventilation During Power Generation; Revision 9
- RAM 7.2; Containment Manual Vent Using Purge Valves; Revision 7
- RAM 7.3; Containment Purge; Revision 7
- STPT; Setpoint Documents; Revision 352
- TS 87; Primary Auxiliary Building Ventilation System Monthly Checks; January 10 And February 11, 2013

## 4OA1 Performance Indicator Verification

- AR01836102; NRC Performance Indicator Requirements Not Aligned
- AR01836376; NRC Performance Indicator Data Submission Process
- CAMP 044; Fuel Integrity Monitoring; Revision 3
- CAMP 410; Determination Of Radioactive Iodine And Iodine 131 Equivalents in Reactor Coolant; Revision 7

- NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 6, October 2009
- NP 3.2.2; Primary Water Chemistry Monitoring Program; Revision 23
- NP 5.2.16; NRC Performance Indicators; Revision 18
- Performance Indicators; Units 1 And 2; Unplanned Power Changes Per 7000 Critical Hours; 1Q/2011 To 4Q/2012
- Performance Indicators; Units 1 And 2; Unplanned Power Scrams Per 7000 Critical Hours; 1Q/2011 To 4Q/2012
- Point Beach PI Reporting Data; Units 1 And 2; 1Q12 Through 4Q12 For Unplanned Power Changes Per 7,000 Critical Hours
- Point Beach PI Reporting Data; Units 1 And 2; 1Q12 Through 4Q12 For Unplanned Scrams Per 7,000 Critical Hours

## 4OA2 Identification and Resolution of Problems

- 10 CFR 50.59/72.48 Pre-Screening Review Of: AOP-13C Severe Weather Conditions Rev 27; July 9, 2012
- 10 CFR 50.59/72.48 SCR 2012-0061-06; EC 276172 Temporary Missile Protection For EDG G-01/G-02 Exhaust Pipes; April 29, 2012
- AOP-13C; Severe Weather Conditions; Revision 25 And 27
- AOP-28; Seismic Event; Revisions 4 And 5
- AR 01657810; 2B-04 Safeguards 480V Bus Was De-Energized
- AR01663181; Perform Testing To Support Past Operability Evaluation
- AR01713333; Heat Trace Plan For MFIV's Inadequate
- AR01756357; TAR 1657810 May Need To Be Revised
- AR01764942; Current Measurements To Support TAR 1657810 Revision
- AR01785551; Water Drainage Issue In Northside Switchyard
- AR01785724; IZ-30
- AR01785729; Long Standing Equipment Issue Façade Flooding
- AR01832853; Possible Counterfeit Or Fraudulent Parts
- AR01851639; Late Licensee Event Report
- Daily Status Report; Units 1 And 2; August 30, 2012
- EC272967; Evaluation Of The Ability Of 2B04 To Perform Its Safety Functions While In The Degraded State; Revisions 1 And 3; June 27, 2012
- EPIP 1.2.1; Emergency Action Level Technical Basis; Revision 8
- FSAR Section 1.3; General Design Criteria; UFSAR 2010
- FSAR Section 8.0; Introduction To The Electrical Distribution Systems; UFSAR 2010
- FSAR Section 9.6; Service Water System (SW); UFSAR 2010
- LER 2011-003-00; Condition Prohibed By Technical Specification 3.8.2, AC Sources-Shutdown; June 7, 2011
- LER 2012-003-00; 2B-04 Safeguards 480V Bus De-Energized; August 23, 2012
- ML082540130; NRC IN 2008-18; Loss Of A Safety-Related Motor Control Center Caused By A Bus Fault; December 1, 2008
- ML7908230155; GL 79-36; Adequacy Of Station Electric Distribution Systems Voltages; August 8, 1979
- NP 10.3.7; On-Line Safety Assessment; Revision 26
- NP 7.7.9; Facilities Monitoring Program; Revision 7
- NP 8.4.17; PBNP Flooding Barrier Control; Revision 14
- NPC-29659; Letter From NRC To Wisconsin Electric Power Company; Safety Evaluation Adequacy Of Station Electric Distribution System Voltages; August 29, 1983

- NPC-37202; Safety Evaluation Of The Preferred Power Systems Conformance To General Design Criterion 17
- NRC Original SER 1970; July 15, 1970
- NRC Regulatory Guide 1.33; Quality Assurance Program Requirements (Operation); Revision 2; February 1976
- OM-AA-101-1000; Shutdown Risk Management; Revision 3
- QF-0515B; PBNP Design Input Checklist
- RCA 1657810; 2B-04 Safeguards 480V Bus Was De-Energized While In Mode 4; Revision 1; July 21, 2011
- RMP 9369-1; Westector/Amptector Overload Setpoint check On Low Voltage Breakers; Revision 25
- Station Log; August 28 To August 30, 2012
- Station Log; December 8 To December 10, 2011
- TAR 01657810; 2B-04 Safeguards 480V Bus Was De-Energized; Revisions 0 And 2
- TAR Checklist For AOP-13C, Severe Weather Conditions, Revision 27
- Technical Specification Bases B 3.8.1; Unit 1-Amendment No. 201, Unit 2-Amendment No. 206
- TS 5.4; Procedures; Unit 1-Amendment No. 201, Unit 2-Amendment No. 206
- WO 00359729; B52-DB75-004; Breaker Maint. Per RMP 9305 And RMP 9369-1
- WO 00376990; 2B52-40C, OPS RTS/PMT

# 4OA3 Follow-Up of Events and Notices of Enforcement Discretion

- AR01657810; 2B-04 Safeguards 480V Bus Was De-Energized
- AR01845751; No Controlled Drawing For Panel 21A
- AR01845872; 1F89-112 Opened On All Three Phases
- AR01845982; Status Level Change
- AR01846028; Drumming Area Ventilation Not Running Following Loss Of Power
- AR01846029; 1P-2B Charging Pump VFD Downpowered
- AR01846501; Hard To Couple
- AR01846503; Ice On Switcher Arms Caused Failure To Reclose
- AR01846509; G-05 Gas Generator Tripped Off Line
- AR01846685; Jumper Across F89-112, Unit 1 Circuit
- AR01846714; 1X-03-EM Relay Failed during The Energization Of 1X-03
- AR01846716; Electrically Disable 2F89-152 In The Closed Position
- AR01846733; Complete Troubleshooting And Repair Control Box On F89-112
- AR01846997; Evaluation Of F89-112 Circuit Switcher
- AR01847136; 1F89-112 Motor Operator Decision
- AR01847140; G-05 Functionality During Severe Weather
- Drawing; PBNP Electrical Power Distribution; June 22, 2005
- EC272967; Evaluation Of The Ability Of 2B04 To Perform Its Safety Functions While In The Degraded State; Revision 3; June 27, 2012
- EN 48722; Unit 1 Experienced Loss Of All Offsite Power; February 6, 2013
- Informal Benchmarking For CA 1657810-10; Breaker Maintenance; Benchmarking Dates August 22 To September 6, 2011
- LER 2012-003-00; 2B-04 Safeguards 480V Bus De-Energized; August 28, 2012
- MRFF 01657810-12; Maintenance Rule Evaluation; August 31, 2011
- Needs Assessment Worksheet For RCE 01657810-01; June 24, 2011
- RCA 1657810; 2B-04 Safeguards 480V Bus Was De-Energized While In MODE 4; February 27, 2012

- Risk Management And Look Ahead Process; LP No. PBN SUP CNT 082L, Revision 2; October 24, 2011
- RMP 9307-3; Power Shield Test Procedure; Revision 9
- RMP 9369-1; Westector/Amptector Overload Setpoint Check On Low Voltage Breakers; Revision 4
- Safety Monitor; Units 1 And 2; February 8, 2013
- Safety System Functional Failure Review For AR01657810-15; October 26, 2012
- Station Log; February 5 To February 7, 2013
- TAR 01657810; 2B-04 Safeguards 480V Bus Was De-Energized; Revision 2; June 29, 2012
- Update Log Form For PBN MEL 302 C04L, Revision 0; SOER 98-02 Circuit Breaker Maintenance; September 28, 2012

#### 40A5 Other Activities

- 10 CFR 50.59/72.48 Pre-Screening Review; Clarifying Placement Of Jersey Barriers To Protect Equipments In Circulating Water Pumphouse And Turbine Building Against External Flooding: Adding Information Regarding Internal Flooding; December 7, 2005
- 10 CFR 50.59/72.48 SCR 2007-0150-01; MOD EC 11174 CWPH Flood Relief Modification; October 29, 2009
- AOP-13B; High Lake Water Level; Revision 3
- AR01248460; Degraded Pipe Supports Near Screen Wash Pumps
- AR01373118; CWPH Mod EC 11174 Requires Cold Weather Procedure Update
- AR01381081; Chlorination Line Support Missing Anchor Bolt
- AR01750334; 1Q12 NRC URI Site Drainage Design Features
- AR01796596; B311C-B854D / Flooding Inspection Of B311C-B854D
- AR01796837; Train A / Post-Fukushima Flooding Walkdowns
- AR01796838; Train B / Post-Fukushima Flooding Walkdowns
- AR01796847 PC 80 Part 7 / Simulation Of Jersey Barrier Installation
- AR01799967; G-01 / Flooding Walkdown Of G-01
- AR01803935; Dripping Condensation Could Affect Electrical Enclosure
- AR01803935; Fuku Seismic WD: Condensation May Affect Elec Enclosure
- AR01803949; Nuts On Anchor Bolts Not In Contact With Baseplate
- AR01804315; Seismic Walkdown Scheduled Durations Not Adequate
- AR01804345; Fuku Seisi WD Light Fixture Above Pump Not Properly Attached
- AR01804345; Light Fixture Above Pump Not Properly Attached
- AR01804578; Light Fixture Has Open 'S' Hook
- AR01804587; 1B-03 Missing Bolt
- AR01804596; Fuku Seismic WD: 2B-03 Missing Bolt
- AR01804992; Fuku Seismic WD, SFP HX Area, T-161A Anchors
- AR01805002; Fuku Seismic WD, EI 66 Above SFP HX Area, T-161C
- AR01805017; Fuku Seismic WD, El 66 Above SFP HX Area, 1T-161C
- AR01805024; Fuku Seismic WD, El 66 Above SFP HX Area, 1T-161C
- AR01805027; Fuku Seismic WD, El 66 Above SFP HX Area, Radio Near 1T-161C
- AR01805030; Fuku Seismic WD, SFP HX Area, Abandoned Pipe Support
- AR01805038; Fuku Seismic WD, El 66 Above SFP HX Area, RX Eng Stor Cabin
- AR01805062; Fuku Seismic WD, El 66 Above SFP HX Area, T161C Piping
- AR01805068; Fuku Seismic WD, SFP HX Area, Chain Interact With Oiler
- AR01805078; Fuku Seismic WD, SFP HX Area, Anchor Bolt Spacing On HX-013A
- AR01805678; Fuku Seismic WD: Light Fixture Supported By Magnets
- AR01806402; Procedure PC 80 Part 7 Lake Water Level Determination Issues
- AR01806858; Potential Ponding On Northwest Corner Of The Protected Area

Attachment

- AR01806867; West Rainwater Runoff Pathways Appear In Conflict With CLB - AR01807158; Fuku Seismic WD: Degraded Conditions In SW Pump Area - AR01807356; Install Concrete Pad For Jersey Barriers For PC 80 Part 7 - AR01807841; Sand Bags Erroneously Eliminated From PB Flood Contingencies - AR01808597; Yard Drains / Fukushima Flooding Walkdown Of Yard Drains - AR01809075; Plant Yard/Storm Drain Covered - AR01809078; Fuku Seismic WD, 1B04 Bus, Washer And Apparent Crack On Anchor - AR01809084; P-35B Diesel Fire Pump Flooding Vulnerability - AR01809087; Plant Yard/Lack Of North And West Interceptor Drainage Ditch - AR01809089; Small Available Physical Margin (APM) On Components - AR01809095; Deficiencies In PC 80 Part 7 "Lake Level Determination" - AR01809100; Storm Drainage/Inadeguate Upkeep Of Ditches And Culverts - AR01809465; Fuku Seismic WD: Loose Bolt On Fan In SW Pump Area - AR01810214; Fuku Seismic WD: Support Of Solenoid Questioned - AR01810218; Fuku Seismic WD: HX-013B Not As Specified - AR01810878; Tendon Galleries/Groundwater Intrusion Through Wall Cracks - AR01810881; RHR Pump Room/Minor Signs Of Groundwater Intrusion - AR01810889; Facades/Unsealed Cable Penetrations In Exterior Wall - AR01810998; Fuku Seismic WD: 2P-2C Anchor Dwg Discrepancy - AR01811012; Fuku Seismic WD: Baseplate For 2RH-823B STEM Ext Miss Anchor - AR01811271: Post-Fukushima Seismic Verification Unit 1 Containment - AR01811839; Covered Storm Drain Catch Basin - AR01812537; PC 80 Part 7 / Large Gaps Between Jersey Barriers - AR01812544; PC 80 Part 7 Needs Sand Bags To Conform With CLB - AR01813241; Fukushima/Flooding Walkdown Of -5 PAB Contaminated Areas - AR01813334; Fuku Seismic WD: Doc Discrepancy 2P-015B Anchor Bolt - AR01813347; Fuku Seismic WD: Overhead Cable Tray Runners Bent - AR01814079; U1 And U2 RHR Pipeways/Signs Of Groundwater Intrusion - AR01816572; Fuku Seismic WD, Air Compressor Room, Missing/Loose Anchors - AR01816729; Fuku Seismic WD: Gai-Tronics Speaker Needs Adjustment - AR01816807; Fuku Seismic WD, air Compressor Room, T-033A Anchorage/Grout - AR01817679; Maintain in Prevention Mode Due To Upcoming Storm - AR01819033; Post-Fukushima Seismic Walkdown Verification Of 2B-32 Elect - AR01819241; FSAR Change Request / Section 2.5 Hydrology - AR01819633; Wire Inside 2C-156 Is Being Stressed - AR01821867; Fuku Seismic WD: U2F : Unanchored Platform Is Safety Hazard - AR01821939; Fuku Seismic WD: Loose Tube Clamp Behind Valve 1RH-716B - AR01823342; 1/2P-53 AFP East Cubicle Wall Unsupported Masonry - AR01823605; Fuku Seismic WD: Missing Anchor Bolt - AR01823629; Fuku Seismic WD: Tube For 1SI-881A Has Long Span - AR01823632; Fuku Seismic WD: Hose For SI-917A Could Fall Down AR01823633; Fuku Seismic WD: Improper Support Of Conduit For Valve 2SI-8 - AR01823637; Fuku Seismic WD: Improper Support Of Copper Pipe - AR01823638; Fuku Seismic WD: Light Fixture Supported By TY-Wraps - AR01823887; Fuku Seismic WD: Masonry Wall And Valve 2CV-351 - AR01823939; Fuku Seismic WD: Interaction Concern Panel D-26 - AR01824199; Fuku Seismic WD: Interaction Concern DY-03 & DY-0C - AR01824372; Fuku Seismic WD: Fire Prot Pipe InG-01 & G-02 Rooms - AR01824582; PC 80 Part 7 – Lake Water Leval (CA Due 7/31/2013)

- AR01825682; Post-Fukushima Seismic Walkdown G-01 Panel C-032
- AR01825684; Post-Fukushima Seismic Walkdown G-02 PNL C-035, C-035, C-035A, C-079
- AR01825687; Post-Fukushima Seismic Walkdown G-03 Panel C-081
- AR01825689; Post-Fukushima Seismic Walkdown G-04 Panel C-082
- AR01825691; Post-Fukushima Seismic Walkdown 1P-10A Norm/Alt Xfer Switch
- AR01825695; Post-Fukushima Seismic Walkdown C-022 Panel
- AR01826195; Fuku Seismic WD: Interaction Concern Panel DY-0C
- AR01827086; LL Fuku Seismic WD Report Has Errors As Submitted To NRC
- AR01830729; Extent Of Condition Review Of Fukushima Seismic Walkdowns
- AR01832201; Fuku Seismic WD: Cond Support Anchor Bolt Missing Nut
- AR01834725; Fuku Seismic WD: Errors In Fukushima Seismic Submittal Rpt
- AR01838066; PC 80 Part 7 (P) NRC Interest
- AR01849522; G01/G02 Missile Shield Impact On External Flooding
- AR01849702; Reinstate PM Due To NRC Commitment
- AR01849707; Reinstate PM Due To NRC Commitment
- AR01850270; FSAR References To Lake Level Are Ambiguous
- AR01853775; Basis For Flood Barriers Not Referenced In FSAR
- AR01853779; CLB For External Flooding Not Changed
- AR01855430; Proposed NRC Violation Fire Watches Missed
- AR01856318; FSAR Not Updated For External Flooding Features
- AR01856322; Failure To Maintain Measures To Address Max Flood
- AR01856327; Failure To Maintain Features To Address Max Wave Run-Up
- Area Walk-By Checklist (AWC) For 03, PAB EI -5'; November 15, 2012
- Area Walk-By Checklist (AWC) For 05: PAB El 26' North End Outside West Inverter Room Near C-022; November 18, 2012
- Area Walk-By Checklist (AWC) For 08, PAB El 46' CCW Heat Exchanger Room; November 12, 2012
- Area Walk-By Checklist (AWC) For 09, Control Building El 26' Cable Spreading Room; November 9, 2012
- Area Walk-By Checklist (AWC) For 11, Control Building El 8' G-02 Room; November 16, 2012
- Area Walk-By Checklist (AWC) For 15; November 13, 2012
- Area Walk-By Checklist (AWC) For 19, PAB El 8' By SI & CS Pumps; November 15, 2012
- Area Walk-By Checklist (AWC) For 20, PAB El 8' By CC Pumps; November 15, 2012
- Area Walk-By Checklist (AWC) For 24, PAB EI 46' SFP HX Area; November 12, 2012
- Area Walk-By Checklist (AWC) For 27, El 8' Pump House South Room; November 12, 2012
- Area Walk-By Checklist (AWC) For 28, El 8' North Room; November 12, 2012
- Area Walk-By Checklist (AWC) For 29, Control Building El 8' Air Comp Room; November 13, 2012
- Area Walk-By Checklist (AWC) For 39, U2 Façade El 85' NE Of Elevator Machine Room; November 11, 2012
- Area Walk-By Checklist (AWC) For 42, CB El 8' G-01 Room; November 16, 2012
- Area Walk-By Checklist (AWC) For 44; November 11, 2012
- Area Walk-By Checklist (AWC) For 48, PAB El 26' Near 1B-42, 2B-42; November 12, 2012
- CE 01806858-02; Potential Ponding On Northwest Corner Of The Protected Area; October 9, 2012
- CE 01806867-02; West Rainwater Runoff Pathways Appear In Conflict With CLB; October 9, 2012
- CE 1807841-01; "Jersey Barriers Per PC 80 Part 7" Is Not Watertight And Not Adequately Evaluated; October 12, 2012
- CE 1809089; Evaluating Multiple ARs (1809084, 1809087, And 1809089); October 23, 2012

- CE 1809089-01; Control Panel C-61 (P-35B Diesel Fire Pump / D-600 Diesel Fire Pump Battery) Has Components Below Current License Basis; October 23, 2012
- CE1807841-01; Current Arrangement For Flood Protection From Lake Michigan per PC 80 Part 7 Is Not Watertight Nor Adequately Evaluated; October 12, 2012
- Consequences Of The Issues Identified In The Jersey Barrier Simulation Performed As Part Of The Fukushima Response; March 6, 2013
- Drawing 333003; Stormwater Plan; Revision 07
- EC 11174; Install Permanent Flood Relief Resolution In CWPH (AR00909045); November 30 2009
- EN-AA-203-1001; Operability Determinations / Functionality Assessments; Revision 9
- Enercon NTTF 2.3 Flooding Walkdowns; Point Beach Nuclear Plant Walkdown Guidelines; September 18, 2012
- EPRI 1025286; Seismic Walkdown Guidance For Resolution Of Fukushima Near-Term Task Force Recommendation 2.3: Seismic; Draft 7 Report, May 2012
- ERI/NRC 96-505; Technical Evaluation Report On The "Submittal-Only" Review Of The Individual Plant Examination Of External Events At PBNP, Units 1 And 2; March 1998
- ERI/NRC 98-505; Supplemental Technical Evaluation Report Based On Review Of Additional Responses Concerning The Individual Plant Examination Of External Events At PBNP, Units 1 And 2; March 1999
- FA 01806402; Procedure PC 80 Part 7 Lake Water Level Determination Issues; Revision 0
- FA 01806858; Potential Ponding On Northwest Corner Of The Protected Area; October 1, 2012
- FSAR Section 2.5; Hydrology; UFSAR 2010
- MI 7.1; Installation Of Hilti Concrete Expansion Bolts; Revision 7
- MR No. 87-130; Flooding Protection, Turbine Building El. 8'-0"; May 14, 1987
- MR No. 95-005; 1B03/1B04 Anchorage Upgrade; February 20, 1998
- NEE05-PR-001; NTTF Recommendation 2.3 (Walkdowns): Flooding; Revision 0
- NEI 12-07; Guidelines For Performing Verification Walkdowns Of Plant Flood Protection Features; Revision 0-A, May 2012
- NextEra Energy Point Beach, LLC; Quality Assurance Topical Report; July 3, 2012
- NRC 2011-0001; Letter From NextEra Energy To NRC; Subject: Periodic Update Of The Final Safety Analysis Report; January 11, 2011
- NRC 2012-0100; Letter From NextEra Energy To NRC; Subject: NextEra Energy Point Beach, LLC Response To 10 CFR 50.54(f) Request For Information Regarding Near-Term Task Force Recommendation 2.3, Flooding; November 20, 2012
- NRC RG 1.33; Quality Assurance Program Requirements (Operation); Revision 2
- PBF-2124; PPCS Forebay And Pump Bay Level Alarm Setpoints; Revision 7
- PBF-3231; Ground Water Monitoring Well Samples; April 16, 2011
- PBF-3231; Ground Water Monitoring Well Samples; February 7, 2011
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- PBF-3231; Ground Water Monitoring Well Samples; March 28, 2011
- PBF-3231; Ground Water Monitoring Well Samples; March 7, 2012
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- PBF-3231; Ground Water Monitoring Well Samples; November 24, 2011
- PBF-3231; Ground Water Monitoring Well Samples; October 9, 2011
- PBF-7053; Engineering Pre-Job Briefing For PC 80 Part 7; September 24, 2012
- PBNP Individual Plant Examination Of External Events For Severe Accident Vulnerabilities; June 30, 1995
- PC 80 Part 7; Lake Water Level Determination; Revisions 3 And 4

- Permanent Procedure And Procedure Revision Review & Approval; AOP-13B, Major, High Lake Water Level; June 1, 1994
- Point Beach Fukushima Seismic Walkdowns; 5.2 Equipment Walkdowns Units 1 And 2
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- QF-0436; CR Change Request Approval For CR 1809095-01; December 4, 2012
- Safety Evaluation Report; AOP-13B High Lake Water Level/PC-80.7 Lake Water Level Determination; Completed August 15, 1995
- Safety Evaluation Report; AOP-13B High Lake Water Level/PC-80.7 Lake Water Level Determination; August 15, 1995
- SCR 2007-0150-01; MOD EC 11174 CWPH Flood Relief Modification; October 29, 2009
- Seismic Walkdown Checklist (SWC) For 1-83/DY-03; November 16, 2012
- Seismic Walkdown Checklist (SWC) For 1A-05; September 21, 2012
- Seismic Walkdown Checklist (SWC) For 1B-03; November 9, 2012
- Seismic Walkdown Checklist (SWC) For 1B-04; November 9, 2012
- Seismic Walkdown Checklist (SWC) For 1MS-02090; November 12, 2012
- Seismic Walkdown Checklist (SWC) For 1P-002A; November 9, 2012
- Seismic Walkdown Checklist (SWC) For 1P-014A; November 9, 2012
- Seismic Walkdown Checklist (SWC) For 1P-053; October 3, 2012
- Seismic Walkdown Checklist (SWC) For 1X-13; September 17, 2012
- Seismic Walkdown Checklist (SWC) For 1Y-203; September 17, 2012
- Seismic Walkdown Checklist (SWC) For 2A-05; September 21, 2012
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- Seismic Walkdown Checklist (SWC) For 2MS-02016; September 19, 2012
- Seismic Walkdown Checklist (SWC) For 2MS-02090; November 11, 2012
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- Seismic Walkdown Checklist (SWC) For AF-04067; October 3, 2012
- Seismic Walkdown Checklist (SWC) For AF-04073B; October 3, 2012
- Seismic Walkdown Checklist (SWC) For D-12; September 17, 2012
- Seismic Walkdown Checklist (SWC) For D-26; November 16, 2012
- Seismic Walkdown Checklist (SWC) For D-63; November 9, 2012
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- Seismic Walkdown Checklist (SWC) For G-04; October 2, 2012
- Seismic Walkdown Checklist (SWC) For HX-013A; November 12, 2012
- Seismic Walkdown Checklist (SWC) For HX-013A; September 19, 2012
- Seismic Walkdown Checklist (SWC) For HX-13B; November 11, 2012
- Seismic Walkdown Checklist (SWC) For P-012A; November 12, 2012
- Seismic Walkdown Checklist (SWC) For P-012A; September 19, 2012
- Seismic Walkdown Checklist (SWC) For P-032A: November 12, 2012
- Seismic Walkdown Checklist (SWC) For P-032D; November 9, 2012
- Seismic Walkdown Checklist (SWC) For P-032E; November 9, 2012
- Seismic Walkdown Checklist (SWC) For SW-02927A; September 19, 2012
- Seismic Walkdown Checklist (SWC) For SW-02930A; September 19, 2012
- Seismic Walkdown Checklist (SWC) For T-171A; October 2, 2012
- Seismic Walkdown Checklist (SWC) For T-171B; October 2, 2012
- Seismic Walkdown Checklist (SWC) For T-224B; October 3, 2012
- Selection Of The Seismic Walkdown Equipment List For The Requirement 2.3 Walkdown;
- PBNP Unit 1; November 22, 2012
- Selection Of The Seismic Walkdown Equipment List For The Requirement 2.3 Walkdown; PBNP Unit 2; November 22, 2012

- SER 93-025-26; MR 91-116; Completed March 28, 1996
- SER-1999-0003; Staff Evaluation Report On Individual Plant Examination Of External Events Submittal For PBNP, Units 1 And 2; September 15, 1999
- Station Log; September 25, 2012
- US Army Corps Of Engineers Report; Great Lakes Water Levels; September 27, 2012
- VPNPD-95-056; Letter From Wisconsin Electric Power Company To NRC; Subject: GL 88-20, Supplement 4 (TAC Nos. 74452 And 74453) Summary Report On Individual Plant Examination Of External Events For Severe Accident Vulnerabilities, PBNP, Units 1 And 2; June 30, 1995
- Walkdown Record Form For CWPH Barrier; August 13, 2012
- Walkdown Record Form For CWPH Storm Drains; October 8, 2012
- Walkdown Record Form For CWPH Yard Area; August 13, 2012
- Walkdown Record Form For D-600; August 13, 2012
- Walkdown Record Form For Drainage Area A; September 11, 2012
- Walkdown Record Form For Drainage Area B; September 11, 2012
- Walkdown Record Form For Drainage Area C; September 11, 2012
- Walkdown Record Form For Drainage Area D; September 11, 2012
- Walkdown Record Form For Drainage Area E; September 11, 2012
- Walkdown Record Form For Drainage Area F; September 11, 2012
- Walkdown Record Form For Drainage Area G; September 11, 2012
- Walkdown Record Form For East Plant Yard; September 11, 2012
- Walkdown Record Form For Jersey Barriers; August 13, 2012
- Walkdown Record Form For North Plant Yard; September 11, 2012
- Walkdown Record Form For Northern Storm Drain Line; October 8, 2012
- Walkdown Record Form For P-032A-M; August 13, 2012
- Walkdown Record Form For P-032B-M; August 13, 2012
- Walkdown Record Form For P-032C-M; August 13, 2012
- Walkdown Record Form For P-032D-M; August 13, 2012
- Walkdown Record Form For P-032E-M; August 13, 2012
- Walkdown Record Form For P-032F-M; August 13, 2012
- Walkdown Record Form For P-035A-M; August 13, 2012
- Walkdown Record Form For P-035B-E; August 13, 2012
- Walkdown Record Form For PAB West Wall; September 17, 2012
- Walkdown Record Form For RHR Pit East Wall; September 17, 2012
- Walkdown Record Form For RHR Pit Floor; September 17, 2012
- Walkdown Record Form For RHR Pit West Wall; September 17, 2012
- Walkdown Record Form For South Plant Yard; September 11, 2012
- Walkdown Record Form For South SY And South Of Plant PA; September 11, 2012
- Walkdown Record Form For Southern Storm Drain Line; October 8, 2012
- Walkdown Record Form For U1 RHR Pipeway; September 17, 2012
- Walkdown Record Form For U2 RHR Pipeway; September 17, 2012
- Walkdown Record Form For Unit 1 Façade External Walls; September 17, 2012
- Walkdown Record Form For Unit 1 Facade Floor; September 17, 2012
- Walkdown Record Form For Unit 1 Tendon Gallery External Walls; September 17, 2012
- Walkdown Record Form For Unit 2 Façade External Walls; September 17, 2012
- Walkdown Record Form For Unit 2 Façade Floor; September 17, 2012
- Walkdown Record Form For Unit 2 Tendon Gallery External Walls; September 17, 2012
- WO Package 40137947; CWPH, Annual Inspection Of Flood Dampers
- WO Package 40177632; Lake Water Level Determination
- WO Package 40179902; Misc/ PC 80 Part 7 Simulation Of Jersey Barrier Installation

# LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
AOP	Abnormal Operating Procedure
AV	Apparent Violation
CAP	Corrective Action Program
CCW	Component Cooling Water
CDF	Core Damage Frequency
CFR	Code of Federal Regulations
CLB	Current Licensing Basis
CR	Condition Report
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
ESFAS	Engineered Safety Features Actuation System
FP	Fire Protection
FPER	Fire Protection Evaluation Report
FPP	Fire Protection Program
FSAR	Final Safety Analysis Report
HEP	Human Error Probability
HEPA	High-Efficiency Particulate Air
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LERF	Large Early Release Frequency
LOCA	Loss-of-Coolant Accident
mrem	Millirem
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NP	Station Nuclear Procedure
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OM	Operating Manual
OOS	Out-of-Service
OSP	Outage Safety Plan
PARS	Publicly Available Records System
PI	Performance Indicator
PMT	Post-Maintenance Testing
POD	Prompt Operability Determination
QATR	Quality Assurance Topical Report
RCA	Radiologically Controlled Area
RCS	Reactor Coolant System
RFO	Refueling Outage
RG	Regulatory Guide
RHR	Residual Heat Removal
SDP	Significance Determination Process
SFP	Spent Fuel Pool

SG	Steam Generator
SI	Safety Injection
SLP	Steam Line Pressure
SPAR	Standardized Plant Analysis Risk
SR	Safety-Related
SRA	Senior Reactor Analyst
SSC	Structures, Systems, And Components
SW	Service Water
TI	Temporary Instruction
TS	Technical Specification
URI	Unresolved Item
WO	Work Order

L. Meyer

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Sincerely,

## /**RA**/

Jamnes L. Cameron, Chief Branch 6 Division of Reactor Projects

Docket Nos. 50-266; 50-301; 72-005 License Nos. DPR-24; DPR-27

Enclosure: Inspection Report 05000266/2013002 and 05000301/2013002; w/Attachment: Supplemental Information

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Letter to L. Meyer from J. Cameron dated May 13, 2013

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 05000266/2013002 AND 05000301/2013002

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