

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352

February 7, 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 05000266/2012005 AND 05000301/2012005

Dear Mr. Meyer:

On December 31, 2012, 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 January 3, 2013, with you and 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.

Four NRC-identified findings and one self-revealed finding of very low safety significance (Green) were identified during this inspection. Additionally, a licensee-identified violation, which was determined to be of very low safety significance, is listed in Section 4OA7 of this report. These findings were determined to involve violations of NRC requirements. 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.

L. Meyer

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/

Michael A. Kunowski, Chief Branch 5 Division of Reactor Projects

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

- Enclosure: Inspection Report 05000266/2012005; 05000301/2012005; w/Attachment: Supplemental Information
- cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	05000266; 05000301
License Nos:	DPR-24; DPR-27
Report No:	05000266/2012005; 05000301/2012005
Licensee:	NextEra Energy Point Beach, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	Two Rivers, WI
Dates:	October 1, 2012, through December 31, 2012
Inspectors:	 S. Burton, Senior Resident Inspector M. Thorpe-Kavanaugh, Resident Inspector K. Carrington, Reactor Engineer A. Dahbur, Senior Reactor Engineer M. Munir, Reactor Inspector A. Shaikh, Reactor Engineer R. Langstaff, Senior Reactor Inspector S. Sheldon, Senior Reactor Engineer K. Walton, Senior Operations Engineer D. McNeil, Senior Operations Engineer J. Laughlin, Emergency Preparedness Inspector M. Phalen, Senior Health Physicist V. Myers, Health Physicist
Approved by:	Michael A. Kunowski, Chief Branch 5 Division of Reactor Projects

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SUMMARY OF FINDINGS

Inspection Report (IR) 05000266/2012005, 05000301/2012005; 10/01/2012 – 12/31/2012; Point Beach Nuclear Plant, Units 1 and 2; Fire Protection, Maintenance Effectiveness, In-Plant Airborne Radioactivity Control and Mitigation, Occupational Dose Assessment, and Follow-Up of Events and Notices of Enforcement Discretion.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Five findings were identified during the inspection.

The findings were considered non-cited violations (NCVs) of NRC regulations. 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 June 7, 2012. 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. NRC-Identified and Self-Revealed Findings

Cornerstone: Initiating Events

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

The inspectors determined that this finding was more than minor in accordance with 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 inspectors determined that the routing of the energized extension cord in the containment spray pumps area could potentially affect both redundant trains of the pumps located in the area. In addition, the finding was similar to IMC 0612, Appendix E, "Examples of Minor Issues," Example 4.k, dated August 11, 2009. The transient combustible material was routed in a combustible free zone required for separation of redundant trains. 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 that the finding screened as having very low safety significance in Task 1.3.1 of IMC 0609, Appendix F. The finding has a cross-cutting aspect in the area of human performance, work control, because the licensee failed to coordinate the approval of a transient combustible control

form with the fire protection engineer prior to routing the extension cord through the containment spray pumps area (H.3(b)). (Section 1R05.b(1))

Cornerstone: Mitigating Systems

• <u>Green</u>. The inspectors identified a finding of very low safety significance and associated NCV of the Point Beach Nuclear Plant Operating Licenses, because the licensee failed to include electrical and physical hazards, which were installed as a result of the extended power uprate (EPU) modification, in the Fire Emergency Plan (FEP). Specifically, this failure could have adversely impacted the fire brigade's ability to fight a fire in fire zones 304N and 304S. The issue was entered into the licensee's corrective action program as action request AR01833683 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to include electrical and physical hazards in FEP 4.12, which were installed as a result of the EPU modification, could have adversely impacted the fire brigade's ability to fight a fire in fire zones 304N and 304S. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Appendix A. Exhibit 2.B question for external event mitigating systems (Seismic/Fire/Flood/Severe Weather Protection Degraded). Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of human performance. work control, because the licensee failed to coordinate the work activities associated with the EPU modification such that the impact of the modification was evaluated against all applicable programs, including fire protection, consistent with nuclear safety (H.3(a)). (Section 1R05.b(2))

<u>Green</u>. The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR 50.65(b)(2)(i), because the licensee failed to adequately scope a non-safety-related component relied upon to mitigate accidents or transients. Specifically, the licensee failed to include the non-safety-related electrohydraulic control system over-pressure delta temperature (OPΔT) and over-temperature delta temperature (OTΔT) automatic runback features, as part of their maintenance effectiveness monitoring program. The issue was entered into the licensee's corrective action program as action request AR01804588 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, failure to monitor

the performance or condition of the electrohydraulic control system could impact the ability of the system to initiate a runback and respond to an event in the desired manner. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Tables 2 and 3, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Appendix A, Exhibit 1 questions for mitigating structures, systems, and components, and functionality. Therefore, the inspectors determined the finding to be of very low safety significance. The inspectors determined that since the scoping of the systems had occurred more than 2 years in the past, and the opportunity to reevaluate system scoping had not occurred recently, that the finding did not represent current plant performance, and therefore did not have a cross-cutting aspect associated with it. (Section 1R12)

 <u>Green</u>: A finding of very low safety significance and associated non-cited violation of Technical Specification 3.8.2, Condition B, Required Action 1 (Immediately) was self-revealed when the licensee's outage-related activities rendered both Unit 2 safety-related buses inoperable. Specifically, the licensee's outage-related activities involved tagging out direct current control power to Unit 2 train A and train B safeguards relay circuitry in order to support termination of wiring. The issue was entered into the licensee's corrective action program as action request AR01639531 for evaluation and development of corrective actions.

The finding was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attribute of Design Control, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609. "Significance Determination Process (SDP) for Findings At-Power," Exhibit 1 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "Yes" to Exhibit 2, Question A.1 in Appendix A for mitigating structures, systems, and components, and functionality. The inspectors determined the finding to be of very low safety significance because at no point were all four emergency diesel generators inoperable. The finding has a cross-cutting aspect in the area of human performance, work practices, human error prevention techniques, because the licensee failed to validate the impact of the underlying assumptions associated with the clearance orders on the Technical Specification requirements so that the equipment affected were not rendered inoperable (H.4(a)). (Section 4OA3.6)

Occupational Radiation Safety

<u>Green</u>: The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR 20.1703 for the failure to implement and maintain written procedures regarding breathing air quality, which resulted in the failure to perform breathing air quality tests since December 2011. This issue was entered into the licensee's corrective action program as AR01821842. An air quality test was subsequently performed resulting in Grade "D" or better air and a review of past air compressor maintenance was performed to provide adequate assurance that breathing air met the Grade "D" requirements since the last test in December 2011. The licensee has also made

necessary procedural changes to ensure air quality tests are performed on a quarterly basis.

The performance deficiency was determined to be of more than minor safety significance in accordance with IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, continued failure to test for breathing air quality could have resulted in unbreathable air being introduced into the licensee's self-contained breathing apparatus and control room emergency breathing air system. 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, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008. The inspectors determined the finding to be of very low safety significance because the finding did not involve: (1) as-low-as-is-reasonably-achievable (ALARA) planning and controls, (2) a radiological overexposure, (3) a substantial potential for an overexposure, or (4) a compromised ability to assess dose. The primary cause of this finding was related to the cross-cutting aspect of human performance, decision making, in that the licensee communicates decisions and the basis for decisions to personnel who have a need to know the information in order to perform the work safely, in a timely manner (H.1(c)). (Section 2RS3.2)

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

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

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at full power levels with the following exceptions: reactor power was lowered to 85 percent from October 28 through October 29, 2012, due to crossover steam dump air operator valve leak identified during testing; and reactor power was reduced to 97 percent to repair a feedwater heater drain valve.

Unit 2 operated at full power level from the beginning of the inspection period until November 1, 2012; then shut down to commence a refueling outage (U2R32); and restarted on November 30, 2012. Unit 2 operated at or near full power levels for the remainder of the entire inspection period.

1. **REACTOR SAFETY**

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

- 1R01 Adverse Weather Protection (71111.01)
 - .1 Winter Seasonal Readiness Preparations
 - a. Inspection Scope

The inspectors conducted a review of the licensee's preparations for winter conditions to verify that the plant's design features and implementation of procedures were sufficient to protect mitigating systems from the effects of adverse weather. Documentation for selected risk-significant systems was reviewed to ensure that these systems would remain functional when challenged by inclement weather. During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Final Safety Analysis Report (FSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. Cold weather protection, such as heat tracing and area heaters, was verified to be in operation where applicable. The inspectors also reviewed corrective action program (CAP) items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station corrective action procedures. Documents reviewed are listed in the Attachment to this report. The inspectors' reviews focused specifically on the following plant systems due to their risk significance or susceptibility to cold weather issues:

- service water (SW) system;
- condensate and feedwater (FW) system; and
- circulating water system.

This inspection constituted one winter seasonal readiness preparations sample as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings were identified.

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

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

- Unit 2 train B safety injection (SI) system following maintenance; and
- Unit 2 train B residual heat removal (RHR) during reactor cooldown.

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), condition reports (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 CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

- 1R05 Fire Protection (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 304N (Unit 2 turbine-driven auxiliary feedwater (TDAFW) pump area);
- fire zone 304S (Unit 1 TDAFW pump area);

- fire zone 306 (battery room D-06);
- fire zone 307 (battery room D-05);
- fire zone 151 (SI pump room);
- fire zone 113 (RHR heat exchanger corridor);
- fire zone 115 (Unit 1 RHR heat exchanger room); and
- fire zone 119 (Unit 2 RHR heat exchanger 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 out-of-service (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 eight fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

(1) Unauthorized Transient Combustibles

<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 control transient combustible materials in accordance with the fire protection program (FPP) requirements. Specifically, the licensee failed to implement the guidelines specified in nuclear procedure (NP) 1.9.9, "Transient Combustible Control," for appropriate control of transient combustible material within the plant. The licensee routed an energized extension power cord for temporary lighting in a combustible exclusion area located within fire zone (FZ) 151.

<u>Description</u>: The FZ 151, 8-foot SI/containment spray (CS) pumps room, contained redundant power and control cables for the charging pumps. A distance of more than 20 feet separated these cables with fire detection and an automatic fire suppression system was installed in the zone. Per the FPP, this zone met the requirements of Section III.G.2 of 10 CFR Part 50, Appendix R, which required separation of cables and equipment of redundant trains by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards.

Procedure NP 1.9.9 identified this zone as a combustible exclusion zone per Section 2.10 and Attachment C, "Auxiliary Building 8-ft Level." The procedure required that no transient combustible material allowed in this zone without specific evaluation and the approval of the fire protection engineer (FPE). Section 2.10 also indicated that temporary hoses, cables, and power cords were considered intervening combustibles. The procedure also required contacting the FPE if combustible items were to be placed in the combustible exclusion zones, noting that a fire watch or other compensatory measures may be required until the items are removed or analyzed by the FPE.

On October 9, 2012, the inspectors identified an energized extension cord routed in FZ 151. The extension cord was installed per WOs 45101 and 45100 on September 14, 2012, and was used to provide power for temporary lighting. The extension cord was routed through the combustible exclusion zone. The temporary combustible loading associated with the extension cord was approved by the work control center (WCC) under Transient Combustible Control Form 4381. However, the NP 1.9.9 requirement specified in Section 2.10 to exclude combustibles in combustible exclusion zones was not met. The installation of the energized extension cord as a transient combustible in the exclusion area located within FZ 151 was not appropriately evaluated and approved by the FPE.

The licensee performed a walkdown of the fire zone and confirmed that the cord was routed in the combustible exclusion zone, and immediately de-energized and removed the extension power cord from the exclusion zone. The licensee placed the issue into the CAP as action request (AR) 01811414, "Combustibles Staged in Combustible Exclusion Zone."

<u>Analysis</u>: The inspectors determined that the failure to control transient combustibles in the combustible exclusion zone was contrary to the licensee's FPP and was a performance deficiency. Specifically, the licensee routed an energized extension power cord (combustible material) for temporary lighting in a combustible exclusion area located in FZ 151 without appropriate evaluation or approval of the FPE. The installation of the power cord was not in accordance with the requirements specified in procedure NP 1.9.9.

The inspectors determined that this finding was more than minor in accordance with 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 inspectors determined that the routing of the energized extension cord in the CS pumps area could potentially affect both redundant trains of the pumps located in the area. In addition, the finding was similar to IMC 0612, Appendix E, "Examples of Minor Issues," Example 4.k, dated August 11, 2009. The transient combustible material was routed in a combustible free zone required for separation of redundant trains.

The inspectors evaluated the finding using Inspection Manual Chapter (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 finding degraded the FP defense-in-depth strategies, and the inspectors determined, using Table 3, that it could be evaluated using Appendix F, "Fire Protection Significance Determination Process." The inspectors completed a significance determination of this issue using IMC 0609, Appendix F, Attachment 2, "Degradation Rating Guidance Specific to Various Fire Protection Program Elements," dated February 28, 2005. The inspectors determined that the quantity of the solid combustible material routed in the exclusion zone represented a low degradation against the combustible controls program because the material was not a low flashpoint liquid. The inspectors determined that the finding screened as having very low safety significance (Green) in Task 1.3.1 of IMC 0609, Appendix F.

This finding had a cross-cutting aspect in the area of human performance, work control, because the licensee failed to coordinate work activities consistent with nuclear safety. Specifically, the WCC failed to coordinate the routing of the energized extension cord through a combustible exclusion zone (CS pumps area) with the FPE and obtain his approval on the transient combustible control form (H.3(b)).

<u>Enforcement</u>: Technical Specification 5.4.1.h 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 procedures which provide guidelines for the appropriate handling of transient combustible material within the plant.

Nuclear procedure NP 1.9.9, "Transient Combustible Control," Revision 20, Section 2.10, stated, in part, that no transient combustible material be allowed in the combustible exclusion zones without specific evaluation and the approval of the FPE. Section 2.10 also indicated that temporary hoses, cables, and power cords were considered intervening combustibles. Attachment C and Section 2.10 of this procedure identified the CS pumps area in FZ 151 as a combustible exclusion zone.

Contrary to the above, on September 14, 2012, the licensee failed to implement the FPP requirements for handling transient combustible material when they routed an energized power extension cord in the combustible exclusion area of FZ 151 without appropriate evaluation or approval of the FPE as required per NP 1.9.9.

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 AR 01811414) to address recurrence (NCV 05000266/2012005-01; 05000301/2012005-01, Unauthorized Transient Combustibles).

(2) Failure to Update the Fire Emergency Plan

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of the Point Beach Nuclear Plant Operating Licenses for the licensee's failure to include electrical and physical hazards, installed as a result of the extended power uprate (EPU) modification, in the Fire Emergency Plan (FEP). Specifically, this failure could have adversely impacted the fire brigade's ability to fight a fire in FZs 304N and 304S.

<u>Description</u>: On August 17, 2012, the inspectors performed a walkdown of the TDAFW pump area (FZs 304N and 304S). The inspectors reviewed FEP 4.12 for the fire zone and noted that newly installed electrical and physical hazards were not included in the plan. Specifically, the electrical hazards that were not included were the 125-Volt (V) direct current (DC) distribution panels (D-63 and D-64) and motor starter cabinets (1SAF-4006, 2SAF-4006, 1SAF-4000, 2SAF-4001, 2SMS-2019, 1SMS-2020, 1SAF-4067, and 2SAF-4067). The physical hazards that were not included were

pressurized air tanks 12T-212 and 2T-212. The inspectors noted that this equipment was initially installed in 2009, and the EPU modifications were partially turned over to Operations in 2011. The inspectors questioned the licensee regarding why these newly installed hazards were not included in the FEP. As noted in the Enforcement section below, FEPs shall include all electrical and physical hazards for each plan area, as they could adversely impact the fire brigade's ability to fight a fire. The licensee initiated AR 01802977 to capture the inspectors' concerns. The licensee concluded that the FEP needed additional revision, which was subsequently issued on October 25, 2012.

Following additional questions by the inspectors, the licensee reviewed other FEPs and found that the following plans had not been updated to reflect changes: FEP 4.1, "PAB West and Central – Elevation (-)19'; (-) 5; 8' CCW, CS/SI, AFW"; FEP 4.4, "Façade Unit 1"; and FEP 4.6, "Façade Unit 2." These FEPs were subsequently revised on October 25, 2012.

<u>Analysis</u>: The inspectors determined that the licensee's failure to include electrical and physical hazards in FEP 4.12, which were installed as a result of the EPU modification, was a performance deficiency warranting further evaluation.

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 protection against external factors (Fire), and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the failure to include electrical and physical hazards in FEP 4.12, which were installed as a result of the EPU modification, could have adversely impacted the fire brigade's ability to fight a fire in FZs 304N and 304S.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 for the Mitigating Systems Cornerstone, dated June 19, 2012. The inspectors answered "No" to the Appendix A, Exhibit 2.B question for external event mitigating systems (Seismic/Fire/Flood/Severe Weather Protection Degraded). Therefore, 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, work control, because the licensee failed to coordinate the work activities associated with the EPU modifications such that the impact of the modifications was evaluated against all applicable programs including fire protection consistent with nuclear safety (H.3(a)). The inspectors reviewed the licensee's white paper discussion 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>: The Point Beach Nuclear Plant's Operating Licenses DPR-24 and DPR-27, Section 4.F, states that the licensee "shall implement and maintain in effect all provisions of the approved fire protection program as described in the FSAR for the facility..." The FSAR states that FPP, design criteria, protection features, and contingency actions are described in the Fire Protection Evaluation Report (FPER). Section 3 of the FPER, "Fire Protection Program Requirements," states the requirements for the fire protection program. Section 3.1.4.5, "Pre-Fire Planning" describes the Pre-Fire Planning used by the fire brigade. Section 3.1.4.5.1, "Fire Emergency Plans,"

establishes the requirements for the content of each FEP, which state, in part, that electrical and physical hazards are listed for each plan area. The FEP 4.12, "Auxiliary Feedwater Pump and Vital Switchgear Area," provides the guidelines for fire attack, hazards, communications, ventilation, fire systems, and safe shutdown in FZs 304N and 304S.

Contrary to the above, on August 17, 2012, the licensee failed to include electrical and physical hazards in FEP 4.12, which were installed as a result of the EPU modification. This failure could have adversely impacted the fire brigade's ability to fight a fire in FZ 4.12.

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 AR01833683 to address recurrence (NCV 05000266/2012005-02; 05000301/2012005-02, Failure to Update the Fire Emergency Plan).

1R08 Inservice Inspection Activities (71111.08P)

From November 5 to November 20, 2012, the inspectors conducted a review of the implementation of the licensee's Inservice Inspection (ISI) Program for monitoring degradation of the Unit 2 reactor coolant system (RCS), steam generator (SG) tubes, emergency FW systems, risk-significant piping and components, and containment systems.

The inspections described in Sections 1R08.1, 1R08.2, R08.3, IR08.4, and 1R08.5 below count as one inspection sample as defined by IP 71111.08–05.

.1 Piping Systems Inservice Inspection

a. Inspection Scope

The inspectors observed and/or reviewed the following nondestructive examinations (NDE) required by the American Society of Mechanical Engineers (ASME), Section XI, Code and/or 10 CFR 50.55a, to evaluate compliance with the ASME Code Section XI applicable ASME Code Case and Section V requirements and if any indications were detected, to determine if these were dispositioned in accordance with the ASME Code or an NRC-approved alternative requirement.

- ultrasonic examination of SI line welds AC-10-SI-2001-12, 13, 14, and 15;
- ultrasonic examination on Unit 2 SGs A and B nozzle-to-safe end dissimilar metal welds;
- visual examination of reactor pressure vessel head surface and penetrations;
- visual examination of reactor pressure vessel inner liner surface;
- eddy current examination of Unit 2 SGs A and B nozzle-to-safe end dissimilar metal welds; and
- eddy current examination of Unit 2 RHR heat exchanger tube inside diameter.

During non-destructive surface and volumetric examinations performed since the previous refueling outage (RFO), the licensee had not identified any recordable

indications. Therefore, no NRC review was completed for this inspection procedure attribute.

The inspectors reviewed the following pressure boundary weld completed for risk-significant Unit 2 systems to determine if the licensee applied the pre-service NDE and acceptance criteria required by the construction code, ASME Section XI Code, and NRC-approved Code Cases. Additionally, the inspectors reviewed the welding procedure specification and supporting weld procedure qualification records to determine if the weld procedures were qualified in accordance with the requirements of the ASME Code Section IX.

• WO 00395287, Replace Reactor Coolant Loop 'A' Cold Leg Valve 1RC-00506A.

b. <u>Findings</u>

No findings were identified.

.2 <u>Reactor Pressure Vessel Upper Head Penetration Inspection Activities</u>

a. Inspection Scope

For the Unit 2 reactor pressure vessel head, no visual or non-visual examinations were required this outage pursuant to 10 CFR 50.55a(g)(6)(ii)(D) requirements. However, the licensee performed a visual examination of the reactor head surface including all reactor head penetrations pursuant to their Boric Acid Corrosion Program requirements. The inspectors observed and reviewed records of the visual examination conducted on the Unit 2 reactor vessel head to determine if the activities were conducted in accordance with the licensee's Boric Acid Corrosion Program procedures. In particular, the inspectors confirmed that:

- the required visual examination scope/coverage was achieved and limitations (if applicable were recorded) in accordance with the licensee procedures;
- the licensee criteria for visual examination quality and instructions for resolving interference and masking issues were adequate; and
- if indications of potential through-wall leakage were identified, the licensee entered the condition into the CAP and implemented appropriate corrective actions.

b. <u>Findings</u>

No findings of significance were identified.

.3 Boric Acid Corrosion Control

a. Inspection Scope

The inspectors observed the licensee staff performing visual examinations of the Unit 2 RCS and emergency core cooling system (ECCS) within containment to determine if these visual examinations focused on locations where boric acid leaks could cause degradation of safety-significant components.

The inspectors also reviewed the following licensee evaluations of RCS components with boric acid deposits to determine if degraded components were documented in the corrective action program. These reviews included evaluation of any subsequent corrective actions for any degraded RCS components to determine if they met the ASME Section XI Code.

- Boric Acid Corrosion (BAC) Evaluation 11-423, "Packing Leak at 1RC-526A";
- BAC Evaluation 11-336, "Leaking From Vent Tube Cap 2SI-848L";
- BAC Evaluation 12-104, "2RH-733B RHR Pump MINI Recirculation Valve BA [boric acid] Leak";
- BAC Evaluation 11-369, "BA Leak on RHR HX Inlet Valve 1RH-715B"; and
- BAC Evaluation 12-106A, "BA Leak on RHR Return to RWST Bypass Valve 2RH-742A."

The inspectors reviewed the following corrective actions related to evidence of boric acid leakage to determine if the corrective actions completed were consistent with the requirements of the ASME Code Section XI and 10 CFR Part 50, Appendix B, Criterion XVI.

- AR01714790, "Active Leak on Cap Downstream of 1RC-526A";
- AR01702397, "Boric Acid Buildup on Valve 2SI-848L";
- AR01756450, "2RH-733B Found with Boric Acid Leak";
- AR01712385, "Need to Pull Bolt and Have VT-3 Performed"; and
- AR01756448, "2RH-742A has Boric Acid Leak."

b. <u>Findings</u>

No findings were identified.

- .4 <u>Steam Generator Tube Inspection Activities</u>
- a. Inspection Scope

The NRC inspectors observed acquisition of eddy current (ET) data, interviewed ET data analysts, and reviewed documentation related to the SG ISI Program to determine if:

- in-situ SG tube pressure testing screening criteria used were consistent with those identified in Electric Power Research Institute (EPRI) TR-107620, Steam Generator In-Situ Pressure Test Guidelines and that these criteria were properly applied to screen degraded SG tubes for in-situ pressure testing;
- the numbers and sizes of SG tube flaws/degradation identified was bound by the licensee's previous outage Operational Assessment predictions;
- the SG tube ET examination scope and expansion criteria were sufficient to meet the TSs, and EPRI 1003138, Pressurized Water Reactor Steam Generator Examination Guidelines: Revision 6;
- the SG tube ET examination scope included potential areas of tube degradation identified in prior outage SG tube inspections and/or as identified in NRC generic industry operating experience applicable to these SG tubes;
- the licensee identified new tube degradation mechanisms and implemented adequate extent of condition inspection scope and repairs for the new tube degradation mechanism;

- the licensee implemented repair methods which were consistent with the repair processes allowed in the plant TS requirements and to determine if qualified depth sizing methods were applied to degraded tubes accepted for continued service;
- the licensee implemented an inappropriate "plug on detection" tube repair threshold (e.g., no attempt at sizing of flaws to confirm tube integrity);
- the licensee primary-to-secondary leakage (e.g., SG tube leakage) was below 3 gallons-per-day or the detection threshold during the previous operating cycle;
- the ET probes and equipment configurations used to acquire data from the SG tubes were qualified to detect the known/expected types of SG tube degradation in accordance with Appendix H, Performance Demonstration for Eddy Current Examination, of EPRI 1003138, Pressurized Water Reactor Steam Generator Examination Guidelines, Revision 6;
- the licensee performed secondary-side SG inspections for location and removal of foreign materials; and
- inaccessible foreign objects were left within the secondary side of the SGs, and if so, that the licensee implemented evaluations which included the effects of foreign object migration and/or tube fretting damage

The licensee did not perform in-situ pressure testing of SG tubes. Therefore, no NRC review was completed for this inspection attribute.

b. <u>Findings</u>

No findings were identified.

- .5 Identification and Resolution of Problems
 - a. Inspection Scope

The inspectors performed a review of ISI/SG related problems entered into the licensee's CAP and conducted interviews with licensee staff to determine if:

- the licensee had established an appropriate threshold for identifying ISI/SG-related problems;
- the licensee had performed a root cause (if applicable) and taken appropriate corrective actions; and
- the licensee had evaluated operating experience and industry generic issues related to ISI and pressure boundary integrity.

The inspectors performed these reviews to evaluate compliance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. Documents reviewed are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 <u>Resident Inspector Quarterly Review of Licensed Operator Regualification (71111.11Q)</u>

a. Inspection Scope

On October 15, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during a portion of the in-progress licensed operator annual requalification operating test 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 and completed the annual examination review requirement 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 November 1, 2012, the inspectors observed control room reactor shutdown operations. 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.

- .3 Biennial Written and Annual Operating Test Results (71111.11A)
- a. Inspection Scope

The inspectors reviewed the overall pass/fail results of the Biennial Written Examination, and the results of the Annual Operating Test, administered by the licensee from July 10, 2012, through October 10, 2012, required by 10 CFR 55.59(a). The results were compared to the thresholds established in Inspection Manual Chapter 0609, Appendix I, "Licensed Operator Requalification Significance Determination Process," to assess the overall adequacy of the licensee's Licensed Operator Requalification Training program to meet the requirements of 10 CFR 55.59.

This inspection constitutes one annual licensed operator requalification sample as defined in IP 71111.11-05.

b. Findings

No findings were identified.

- .4 <u>Conformance with Examination Security Requirements</u> (10 CFR 55.49)
- a. Inspection Scope

The inspectors conducted an assessment of the licensee's processes related to examination integrity (e.g., control of licensed operators during operating tests) to verify compliance with 10 CFR 55.49, "Integrity of Examinations and Tests." The inspectors reviewed the facility licensee's examination security error and compared it to NRC requirements.

b. Findings

During the administration of the Job Performance Measures (JPMs) portion of the operating test, a licensed operator, being administered a JPM, was allowed to come in contact with another licensed operator that had JPM examination specific information. There was no examination proctor/escort with the two operators during the time they met. The two operators were together for only a few seconds and there was no time for the second operator to reveal the examination specific information to the first operator. However, as a precaution, the JPM exposed to the second operator was replaced with a different JPM by the facility licensee before being administered to the first operator. There was no compromise of examination material and a violation of 10 CFR 55.49 did

not occur. However, all events involving examination security are required to be documented.

- 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:

- function-oriented approach for 4160-V system; and
- problem-oriented approach for electrohydraulic control (EHC) system failures (Units 1 and 2).

The inspectors reviewed events, such as where ineffective equipment maintenance had 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 two completed quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

Inadequate Scoping of a Non-Safety-Related System into the Maintenance Rule

<u>Introduction</u>: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR 50.65(b)(2)(i), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," because the licensee failed to adequately scope a non-safety-related (NSR) component relied upon to mitigate accidents or transients. Specifically, the licensee failed to include the NSR EHC system over-temperature delta temperature ($OT\Delta T$) and over-pressure delta temperature

 $(OP\Delta T)$ automatic runback features, as part of their maintenance effectiveness monitoring program.

<u>Description</u>: On September 11, 2012, the inspectors identified that the licensee failed to scope the EHC system $OT\Delta T$ and $OP\Delta T$ automatic runback features into the maintenance rule program.

Section 7.7.5 of Point Beach FSAR, titled "Automatic Turbine Load Runback," describes the turbine automatic load runback initiated as a result of reaching the $OT\Delta T$ and $OP\Delta T$ trip setpoints. Following a two-out-of-four channel logic received, indicating an increasing $OT\Delta T$ and $OP\Delta T$, the turbine runback would act by reducing the load reference setpoint of the turbine EHC system controller. Additionally, this feature prevented high power operation that could lead to a departure from nucleate boiling ratio (DNBR) of less than 1.30.

Technical Specification 3.3.1, "RPS Instrumentation," described the reactor $OT\Delta T$ and $OP\Delta T$ trip functions. In addition, it stated that for each of these functions it provided a signal to generate a turbine runback to the EHC system to reduce turbine power and reactor power to alleviate each condition and may prevent a reactor trip.

The inspectors identified that the licensee did not scope the EHC system OT Δ T and OP Δ T automatic runback features into their maintenance rule program as required by the maintenance rule. The inspectors concluded that these features met the criteria stated in 10 CFR 50.65(b)(2)(ii) that NSR structures, systems, and components (SSCs) that are relied upon to mitigate accidents or transients shall be included in a maintenance monitoring program. The inspectors questioned the licensee regarding this conclusion and the licensee entered the issue into the CAP as AR01804588 in response to the inspectors' concerns. The licensee took prompt action to perform a benchmarking with other maintenance rule coordinators and found that the function of the turbine runback feature was included in the scope of the maintenance rule. The licensee initiated corrective actions to revise the scoping criteria for the EHC system.

<u>Analysis</u>: The inspectors determined that the licensee's failure to scope the EHC system $OT\Delta T$ and $OP\Delta T$ automatic runback features into the maintenance rule program was contrary to the requirements of 10 CFR 50.65(b)(2)(ii), and was a performance deficiency warranting further evaluation.

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 equipment performance, and adversely affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, failure to monitor the performance or condition of the EHC system could impact the ability of the system to initiate a runback and respond to an event in the desired manner.

The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, Tables 2 and 3, and Appendix A, Exhibit 2, for the Mitigating Systems Cornerstone. The inspectors answered "No" to the Appendix A, Exhibit 1 questions for mitigating SSCs, and functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green).

The inspectors determined that since the scoping of the systems had occurred more than 2 years in the past and the opportunity to reevaluate system scoping had not occurred recently, the finding did not represent current plant performance, and therefore did not have a cross-cutting aspect associated with it. The inspectors reviewed the licensee's condition report and found that the licensee's assessment was consistent with the inspectors' assessment of the condition.

<u>Enforcement</u>: Title 10 CFR 50.65(b)(2)(ii), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," required, in part, that NSR SSCs that are relied upon to mitigate accidents or transients be included in a maintenance monitoring program.

Contrary to the above, on September 11, 2012, the licensee failed to include an NSR SSC that was relied upon to mitigate accidents or transients in a maintenance monitoring program. Specifically, the inspectors identified that the EHC system $OT\Delta T$ and $OP\Delta T$ automatic runback features as described in Section 7.7.5 of the FSAR was not included in the maintenance monitoring program.

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 AR01804588) to address recurrence (NCV 05000266/2012005-03; 05000301/2012005-03, Inadequate Scoping of a Non-Safety-Related System Into the Maintenance Rule).

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 safety-related (SR) equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work during:

- the Unit 1 SW leak in containment;
- the week of October 29, 2012, with preparations for Unit 2 RFO;
- operation of RHR and SI pumps with a degraded/non-conforming condition;
- the use of dedicated operator with SW pumps OOS for Unit 2 RFO; and
- the week of December 17, 2012.

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 five 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 of pipeway #4 equipment (Units 1 and 2);
- operability of containment with SW leak (Unit 1);
- operability of atmospheric steam dump B following controller failure (Unit 2);
- operability of RHR pump A (Unit 2);
- operability of containment accident fan cooler motor bearings (Units 1 and 2);
- operability of RHR system to reactor vessel SI line with void (Unit 2); and
- operability of emergency diesel generator (EDG) G-03 with silver found in oil (Units 1 and 2).

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 seven samples as defined in IP 71111.15-05.

b. <u>Findings</u>

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed the following modifications:

- fuel transfer system upgrade (permanent); and
- Unit 2 main FW isolation valves to address cold weather issues (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 permanent modification sample as defined in IP 71111.18 05.

b. Findings

No findings were identified.

- 1R19 Post-Maintenance Testing (71111.19)
 - .1 Post-Maintenance Testing
 - a. Inspection Scope

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

- crossover steam dumps following repair of valve air leak (Unit 1);
- SW pipe replacement (Unit 1);
- station blackout gas turbine G-05 following logic replacement (Units 1 and 2);
- SI pump 2P-15B following routine maintenance and breaker swap (Unit 2);
- SG power-operated relief valve (PORV) (2MS-2015) following controller replacement (Unit 2); and
- main FW relief valve (MFRV) AMSAC [anticipated transient without scram mitigating system actuation circuitry] switches after logic change during Unit 2 RFO (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 (TMODs) 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 six PMT samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

.2 (Closed) Unresolved Item 05000301/2012002-02; Post-Maintenance Test On Main Feedwater Regulating Valve AMSAC Switches Deferred To Later Date

Inspection report 05000266/2012002; 05000301/2012002, identified an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which stated, in part, that activities affecting quality shall be prescribed and accomplished in accordance with procedures. On June 10, 2011, a modification (EC12054) to the MFRVs was partially turned over to and accepted by operations for Mode 2 entry when the AMSAC system was required to be functioning. However, the licensee failed to perform PMT as required by procedures. As part of this issue, the inspectors were concerned about the reliability of AMSAC system because some aspects of the PMT were not performed. The inspectors considered the lack of a successful PMT unresolved pending successful performance of the test at the first available opportunity.

The licensee successfully performed procedure 2ICP 05.055, "AMSAC Refueling Test and Calibration," on November 2, 2012, as part of the Unit 2 RFO. The inspectors noted no problems with the test. This Unresolved Item (URI) is closed.

- 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 2 RFO (U2R32), conducted November 1 through November 31, 2012, 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 spent fuel pool (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;
- licensee fatigue management, as required by 10 CFR Part 26, Subpart I;
- refueling activities, including fuel handling and sipping to detect fuel assembly leakage;
- startup and ascension to full power operation, tracking of startup prerequisites, walkdown of containment to verify that debris had not been left which could block ECCS suction strainers, and reactor physics testing; and
- licensee identification and resolution of problems related to RFO activities.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R22 <u>Surveillance Testing</u> (71111.22)

- .1 <u>Surveillance Testing</u>
- 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:

- Unit 2 containment isolation valve (CIV) quarterly surveillance (inservice testing (IST));
- SW valves quarterly surveillance (IST);

- TDAFW 1P29 cold start surveillance testing (Routine); and
- AMSAC refueling test and calibration (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 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 two routine surveillance testing samples and two inservice testing samples, as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

1EP4 <u>Emergency Action Level and Emergency Plan Changes</u> (IP 71114.04)

a. Inspection Scope

The NSIR headquarters staff performed an in-office review of the latest revisions of the EP and various Emergency Plan Implementing Procedures (EPIPs) located under ADAMS accession number ML12143A192 as listed in the Attachment.

The licensee transmitted the EPIP revisions to the NRC pursuant to the requirements of 10 CFR Part 50, Appendix E, Section V, "Implementing Procedures." The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. Documents reviewed are listed in the Attachment.

This emergency action level and plan review inspection constituted one sample as defined in IP 71114.04-05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2RS3 In-Plant Airborne Radioactivity Control and Mitigation (71124.03)

The inspection activities supplement those documented in IR 05000266/2012002; 05000301/2012002, and constituted one complete sample as defined in IP 71124.03-05.

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

The inspectors reviewed the plant FSAR to identify areas of the plant designed as potential airborne radiation areas and any associated ventilation systems or airborne monitoring instrumentation. Instrumentation reviewed included continuous air monitors (continuous air monitors and particulate-iodine-noble-gas-type instruments) used to identify changing airborne radiological conditions such that actions to prevent an overexposure may be taken. The review included an overview of the respiratory protection program and a description of the types of devices used. The inspectors reviewed the FSAR, TSs, and emergency planning documents to identify location and quantity of respiratory protection devices stored for emergency use.

The inspectors reviewed the licensee's procedures for maintenance, inspection, and use of respiratory protection equipment, including self-contained breathing apparatus (SCBA), as well as procedures for air quality maintenance.

The inspectors reviewed reported performance indicators to identify any related to unintended dose resulting from intakes of radioactive material.

b. Findings

No findings were identified.

.2 Use of Respiratory Protection Devices (02.03)

a. Inspection Scope

For those situations where it is impractical to employ engineering controls to minimize airborne radioactivity, the inspectors assessed whether the licensee provided respiratory protective devices such that occupational doses was as-low-as-is-reasonably-achievable (ALARA). The inspectors selected work activities where respiratory protection devices were used to limit the intake of radioactive materials, and assessed whether the licensee performed an evaluation concluding that further engineering controls were not practical and that the use of respirators was ALARA. The inspectors also evaluated whether the licensee had established means (such as routine bioassay) to determine if the level of protection (protection factor) provided by the respiratory protection devices during use was at least as good as that assumed in the licensee's work controls and dose assessment.

The inspectors assessed whether respiratory protection devices used to limit the intake of radioactive materials were certified by the National Institute for Occupational Safety and Health/Mine Safety and Health Administration or have been approved by the NRC per 10 CFR 20.1703(b). The inspectors selected work activities where respiratory protection devices were used. The inspectors evaluated whether the devices were used consistent with their National Institute for Occupational Safety and Health Administration or any conditions of their NRC approval.

The inspectors reviewed records of air testing for supplied-air devices and SCBA bottles to assess whether the air used in these devices met or exceeded Grade D quality. The inspectors reviewed plant breathing air supply systems to determine whether they met the minimum pressure and airflow requirements for the devices in use.

The inspectors selected several individuals qualified to use respiratory protection devices, and assessed whether they have been deemed fit to use the devices by a physician.

The inspectors selected several individuals assigned to wear a respiratory protection device and observed them donning, doffing, and functionally checking the device as appropriate. Through interviews with these individuals, the inspectors evaluated whether they knew how to safely use the device and how to properly respond to any device malfunction or unusual occurrence (loss of power, loss of air, etc.).

The inspectors chose multiple respiratory protection devices staged and ready for use in the plant or stocked for issuance for use. The inspectors assessed the physical condition of the device components (mask or hood, harnesses, air lines, regulators, air bottles, etc.) and reviewed records of routine inspection for each. The inspectors selected several of the devices and reviewed records of maintenance on the vital components (e.g., pressure regulators, inhalation/exhalation valves, hose couplings). The inspectors reviewed the respirator vital components maintenance program to ensure that the repairs of vital components were performed by the respirators' manufacturer.

b. Findings

Failure to Implement and Maintain Procedures Regarding Breathing Air Quality

<u>Introduction</u>: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR 20.1703, "Use of Individual Respiratory Protection Equipment," for the failure to implement and maintain written procedures regarding breathing air quality.

<u>Description</u>: The licensee uses an air compressor to provide breathing air to its SCBAs and control room emergency breathing air system. It may be necessary that these units/systems be utilized by plant personnel in the event of a radiological incident in order to reduce the amount of internal contamination exposure. This air compressor is required to produce Grade "D" or better air quality in accordance with 10 CFR 20.1703.

The licensee utilized Periodic Check (PC) 68; "Operation and Check of Baron 2 High Pressure Breathing Air System," to test for Grade "D" air quality. This procedure required the compressor to be run biweekly per manufacturer's recommendation and that the air quality be tested during the first run on the months of February, May, August, and November.

During the inspection, the inspectors identified that air quality testing had not been performed since December 2011. The licensee subsequently performed an evaluation of the event. The results of this evaluation are discussed in the next paragraph.

The air compressor was run more often than biweekly for normal plant operations. Therefore, the licensee determined that this procedure was not needed to ensure proper operation and was cancelled in 2011. Personnel canceling the procedure were not experts in this area and did not understand that the procedure also contained required air quality tests that are not performed as part of normal plant operation. Several months later, the licensee noticed that this procedure should not have been cancelled and was reinstated but was scheduled on a quarterly basis instead of biweekly. This procedure was scheduled to be performed during the last month of every quarter (March, June, September, and December) but the procedure itself was never reviewed/changed and still only required the air quality test to be performed in the months of February, May, August, and November. This resulted in the absence of air quality testing since December 2011.

This issue was entered into the licensee's CAP as AR01821842. An air quality test was subsequently performed resulting in Grade "D" or better air; and a review of past air compressor maintenance was performed to provide adequate assurance that breathing air met the Grade "D" requirements since the last test in December 2011. The licensee also made necessary procedural changes to ensure air quality tests are performed on a quarterly basis.

<u>Analysis</u>: The inspectors determined that not having a working procedure to test for breathing air quality 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 of more than minor safety significance 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, continued failure to test for breathing air quality could have resulted in unbreathable air being introduced into the licensee's SCBAs and Control Room Emergency Breathing Air System. The inspectors also reviewed the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, and did not find any similar examples.

The inspectors evaluated the finding using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, and determined that the finding had very low safety significance (Green) because the finding did not involve: (1) ALARA planning and controls; (2) a radiological overexposure; (3) a substantial potential for an overexposure; or (4) a compromised ability to assess dose.

The inspectors identified that the primary cause of this finding was related to the cross-cutting aspect of human performance with the component of decision making in that the licensee communicates decisions and the basis for decisions to personnel who have a need to know the information in order to perform the work safely, in a timely manner (H.1(c)).

<u>Enforcement</u>: Title 10 CFR 20.1703(c) requires, in part, that the licensee implement and maintain a respiratory protection program that includes written procedures regarding breathing air quality.

Contrary to the above, in December 2011, the licensee made changes to the scheduling frequency of the air quality test procedure without proper review which ultimately resulted in the licensee having no working procedure regarding breathing air quality.

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 AR01821842) to address recurrence (NCV 05000266/2012005-04; 05000301/2012005-04, Failure to Implement and Maintain Procedures Regarding Breathing Air Quality).

.3 <u>Self-Contained Breathing Apparatus for Emergency Use</u> (02.04)

a. Inspection Scope

Based on the FSAR, TSs, and emergency operating procedure requirements, the inspectors reviewed the status and surveillance records of SCBAs staged in-plant for use during emergencies. The inspectors reviewed the licensee's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions.

The inspectors selected several individuals on control room shift crews and from designated departments currently assigned emergency duties (e.g., onsite search and rescue duties) to assess whether control room operators and other emergency response and radiation protection personnel (assigned in-plant search and rescue duties or as required by emergency operating procedures or the emergency plan) were trained and qualified in the use of SCBAs (including personal bottle change-out). The inspectors

evaluated whether personnel assigned to refill bottles were trained and qualified for that task.

The inspectors determined whether appropriate mask sizes and types were available for use (i.e., in-field mask size and type match what was used in fit-testing). The inspectors determined whether on-shift operators had no facial hair that would interfere with the sealing of the mask to the face and whether vision correction (e.g., glasses inserts or corrected lenses) was available as appropriate.

The inspectors reviewed the past 2 years of maintenance records for select SCBA units used to support operator activities during accident conditions and designated as "ready for service" to assess whether any maintenance or repairs on any SCBA unit's vital components were performed by an individual, or individuals, certified by the manufacturer of the device to perform the work. The vital components typically are the pressure-demand air regulator and the low-pressure alarm. The inspectors reviewed the onsite maintenance procedures governing vital component work to determine any inconsistencies with the SCBA manufacturer's recommended practices. For those SCBAs designated as "ready for service," the inspectors determined whether the required, periodic air cylinder hydrostatic testing was documented and up-to-date, and the retest air cylinder markings required by the U.S. Department of Transportation were in place.

b. Findings

No findings were identified.

- .4 <u>Problem Identification and Resolution</u> (02.05)
- a. Inspection Scope

The inspectors evaluated whether problems associated with the control and mitigation of in-plant airborne radioactivity were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. The inspectors assessed whether the corrective actions were appropriate for a selected sample of problems involving airborne radioactivity and were appropriately documented by the licensee.

b. Findings

No findings were identified.

2RS4 Occupational Dose Assessment (71124.04)

The inspection activities supplement those documented in IR 05000266/2012002; 05000301/2012002, and constituted one complete sample as defined in IP 71124.04-05.

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

The inspectors reviewed the results of radiation protection program audits related to internal and external dosimetry (e.g., licensee's quality assurance audits, self-assessments, or other independent audits) to gain insights into overall licensee

performance in the area of dose assessment and focus the inspection activities consistent with the principle of "smart sampling."

The inspectors reviewed the most recent National Voluntary Laboratory Accreditation Program accreditation report on the vendor's most recent results to determine the status of the contractor's accreditation.

A review was conducted of the licensee procedures associated with dosimetry operations, including issuance/use of external dosimetry (routine, multibadging, extremity, neutron, etc.), assessment of internal dose (operation of whole body counter, assignment of dose based on derived air concentration-hours, urinalysis, etc.), and evaluation of and dose assessment for radiological incidents (distributed contamination, hot particles, loss of dosimetry, etc.).

The inspectors evaluated whether the licensee had established procedural requirements for determining when external and internal dosimetry was required.

b. Findings

No findings were identified.

- .2 External Dosimetry (02.02)
- a. Inspection Scope

The inspectors evaluated whether the licensee's dosimetry vendor was National Voluntary Laboratory Accreditation Program accredited and if the approved irradiation test categories for each type of personnel dosimeter used were consistent with the types and energies of the radiation present and the way the dosimeter was being used (e.g., to measure deep dose equivalent, shallow dose equivalent, or lens dose equivalent).

The inspectors evaluated the onsite storage of dosimeters before their issuance, during use, and before processing/reading. The inspectors also reviewed the guidance provided to radiation workers with respect to care and storage of dosimeters.

The inspectors assessed whether non-National Voluntary Laboratory Accreditation Program accredited passive dosimeters (e.g., direct ion storage sight read dosimeters) were used according to licensee procedures that provide for periodic calibration, application of calibration factors, usage, reading (dose assessment) and zeroing.

The inspectors assessed the use of active dosimeters (electronic personal dosimeters) to determine if the licensee used a "correction factor" to address the response of the electronic personal dosimeter as compared to the passive dosimeter for situations when the electronic personal dosimeter must be used to assign dose and whether the correction factor was based on sound technical principles.

The inspectors reviewed dosimetry occurrence reports or CAP documents for adverse trends related to electronic personal dosimeters, such as interference from electromagnetic frequency, dropping or bumping, failure to hear alarms, etc. The inspectors assessed whether the licensee had identified any trends and implemented appropriate corrective actions.

b. Findings

No findings were identified.

.3 Internal Dosimetry (02.03)

Routine Bioassay (In Vivo)

a. Inspection Scope

The inspectors reviewed procedures used to assess the dose from internally deposited nuclides using whole body counting equipment. The inspectors evaluated whether the procedures addressed methods for differentiating between internal and external contamination, the release of contaminated individuals, the route of intake, and the assignment of dose.

The inspectors reviewed the whole body count process to determine if the frequency of measurements was consistent with the biological half-life of the nuclides available for intake.

The inspectors reviewed the licensee's evaluation for use of its portal radiation monitors as a passive monitoring system to determine if instrument minimum detectable activities were adequate to determine the potential for internally deposited radionuclides sufficient to prompt additional investigation.

The inspectors selected several whole body counts and evaluated whether the counting system used had sufficient counting time/low background to ensure appropriate sensitivity for the potential radionuclides of interest. The inspectors reviewed the radionuclide library used for the count system to determine its appropriateness. The inspectors evaluated whether any anomalous count peaks/nuclides indicated in each output spectra received appropriate disposition. The inspector's reviewed the licensee's 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," data analyses to determine whether the nuclide libraries included appropriate gamma-emitting nuclides. The inspectors evaluated how the licensee accounts for hard-to-detect nuclides in the dose assessment.

b. Findings

No findings were identified.

Special Bioassay (In Vitro)

a. Inspection Scope

The inspectors reviewed and assessed the adequacy of the licensee's program for in vitro monitoring (i.e., urinalysis and fecal analysis) of radionuclides (tritium, fission products, and activation products), including collection and storage of samples.

The inspectors reviewed the vendor laboratory quality assurance program and assessed whether the laboratory participated in an industry recognized cross-check program, including whether out-of-tolerance results were resolved appropriately.

b. Findings

No findings were identified.

Internal Dose Assessment - Airborne Monitoring

a. Inspection Scope

The inspectors reviewed the licensee's program for airborne radioactivity assessment and dose assessment, as applicable, based on airborne monitoring and calculations of derived air concentration. The inspectors determined whether flow rates and collection times for air sampling equipment were adequate to allow lower limits of detection to be obtained. The inspectors also reviewed the adequacy of procedural guidance to assess internal dose if respiratory protection was used.

b. Findings

No findings were identified.

Internal Dose Assessment – Whole Body Count Analyses

a. Inspection Scope

The inspectors reviewed several dose assessments performed by the licensee using the results of whole body count analyses. The inspectors determined whether affected personnel were properly monitored with calibrated equipment and that internal exposures were assessed consistent with the licensee's procedures.

b. Findings

No findings were identified.

.4 Special Dosimetric Situations (02.04)

Declared Pregnant Workers

a. Inspection Scope

The inspectors assessed whether the licensee informs workers, as appropriate, of the risks of radiation exposure to the embryo/fetus, the regulatory aspects of declaring a pregnancy, and the specific process to be used for (voluntarily) declaring a pregnancy.

The inspectors selected individuals who had declared pregnancy during the current assessment period and evaluated whether the licensee's radiological monitoring program (internal and external) for declared pregnant workers was technically adequate to assess the dose to the embryo/fetus. The inspectors reviewed exposure results and monitoring controls employed by the licensee and with respect to the requirements of 10 CFR Part 20, "Standards for Protection Against Radiation."

b. Findings

No findings were identified.

Dosimeter Placement and Assessment of Effective Dose Equivalent for External Exposures

a. Inspection Scope

The inspectors reviewed the licensee's methodology for monitoring external dose in non-uniform radiation fields or where large dose gradients exist. The inspectors evaluated the licensee's criteria for determining when alternate monitoring, such as use of multi-badging, was to be implemented.

The inspectors reviewed dose assessments performed using multi-badging to evaluate whether the assessment was performed consistently with licensee procedures and dosimetric standards.

b. Findings

No findings were identified.

Shallow Dose Equivalent

a. Inspection Scope

The inspectors reviewed shallow dose equivalent dose assessments for adequacy. The inspectors evaluated the licensee's method (e.g., VARSKIN or similar code) for calculating shallow dose equivalent from distributed skin contamination or discrete radioactive particles.

b. Findings

No findings were identified.

Neutron Dose Assessment

a. Inspection Scope

The inspectors evaluated the licensee's Neutron Dosimetry Program, including dosimeter types and/or survey instrumentation.

The inspectors reviewed neutron exposure situations (e.g., independent spent fuel storage installation operations or at-power containment entries) and assessed whether (a) dosimetry and/or instrumentation was appropriate for the expected neutron spectra; (b) there was sufficient sensitivity for low dose and/or dose rate measurement; and, (c) neutron dosimetry was properly calibrated. The inspectors also assessed whether interference by gamma radiation had been accounted for in the calibration and whether time and motion evaluations were representative of actual neutron exposure events, as applicable.

b. Findings

(Open) Unresolved Item 05000266/2012005-05; 05000301/2012005-05: Unmonitored Neutron Exposure Evaluation

<u>Introduction</u>: The inspectors identified a URI concerning unmonitored neutron exposure outside the radiologically controlled area (RCA) due to a neutron source.

<u>Discussion</u>: The licensee utilized a source storage room outside of the RCA and adjacent to office space for the storage of a neutron source. The area around the source storage room was not posted and dosimetry was not required to be worn. In September 2012, several environmental dosimeters showed neutron dose (10-20 mRem [millirem]) when none were expected. The licensee investigated the abnormal results and determined that these dosimeters were stored in the office area adjacent to the source storage room for approximately two weeks while awaiting processing and that the neutron dose came from the neutron source in the storage room. At the time of the inspection, the licensee had not completed its evaluation of the accumulated neutron dose for personnel who utilized the areas adjacent to the source storage room. This issue is categorized as a URI pending completion and NRC review of the licensee's evaluation (URI 05000266/2012005-05; 05000301/2012005-05, Unmonitored Neutron Exposure Evaluation).

- .4 <u>Problem Identification and Resolution</u> (02.05)
- a. Inspection Scope

The inspectors assessed whether problems associated with occupational dose assessment were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. The inspectors assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving occupational dose assessment.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

4OA1 Performance Indicator Verification (71151)

- .1 Safety System Functional Failures
- a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures performance indicator (PI) for Units 1 and 2, for the fourth quarter 2011 through the third quarter 2012. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline,"

Revision 6, dated October 2009, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," definitions and guidance, were used. The inspectors reviewed the licensee's operator narrative logs, operability assessments, maintenance rule records, maintenance WOs, CRs, event reports, and NRC integrated IRs 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 safety system functional failures samples as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)

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

- .1 Routine Review of Items Entered into the Corrective Action Program
- a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that 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 condition report 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 (Closed) URI 05000266/2012003-03; 05000301/2012003-03: Selected Issue Follow-Up: Partial Turnover of Extended Power Uprate Modifications
- a. Inspection Scope

The inspectors previously identified weaknesses in the licensee's partial turnover process. The licensee documented a number of issues on condition reports. The inspectors' review of this practice was a selected issue follow-up item and a URI issued in IR 05000266/2012003; 05000301/2012003. The inspectors reviewed a sample of CRs associated with design engineering modification installation and reviewed a modification package with associated punchlist items to verify that system operability was not adversely impacted by the modification punchlists and the licensee adhered to its engineering procedures for processing the modification.

The inspectors verified that the items removed from the modification packages were appropriately reviewed by both the design engineering and a senior licensed operator to ensure that no concerns of operability were included in these punchlists. The review of CRs did not identify any engineering process deficiencies.

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

b. Findings

No findings were identified.

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

- .1 Unit 2 Power Excursion Transient
 - a. Inspection Scope

The inspectors reviewed the plant's response to the Unit 2 power excursion transient. On October 12, 2012, Unit 2 exceeded the licensed reactor thermal power limit and entered an unanalyzed condition when the SG atmospheric steam dump valve B (2MS-2015) controller failed, causing the valve to open. The licensee took action to place the controller in manual and promptly closed the valve. 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.

.2 (Closed) Licensee Event Reports 05000266/2012-002-00; 05000266/2012-002-01; and 05000266/2012-002-02: Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater

On May 21, 2012, the Unit 1 TDAFW pump was removed from service to perform quarterly surveillance testing. A degraded coupling was identified during the testing. The licensee determined that the TDAFW pump may not have been able to perform its design and licensing basis functions for the period from surveillance testing performed on March 13, 2012, through when the pump was returned to service on May 23, 2012, after the quarterly testing initiated on May 21, 2012. This period, based on the licensee's review of past operability, exceeded the allowed OOS time specified by TS 3.7.5.B. The licensee reported the inoperability consistent with the guidance of NUREG-1022, "Event Reporting Guidelines, 10 CFR 50.72 and 50.73," Revision 2, accordingly. However, the time limits specified by TS 3.7.5.B were not exceeded based on the time of discovery, starting on May 21, 2012.

A self-revealed preliminary finding of low-to-moderate safety significance (i.e., a White finding) was associated with the inoperability of the TDAFW pump and is discussed in IR 05000266/2012009, dated December 4, 2012. No additional performance deficiencies were identified as part of this review. These LERs are closed.

This event follow-up review constituted three samples as defined in IP 71153-05.

.3 (Closed) Licensee Event Report 05000301/2012-001-00: Unit 2 Manual Reactor Trip

On June 27, 2012, operators manually tripped the Unit 2 reactor in response to indications of a loss-of-load to the main turbine. The operators responded to the event consistent with their training for a loss-of-load condition. The plant responded to the manual trip as expected.

The licensee performed a root cause evaluation (RCE) and determined that a logic chip on the speed channel A card in the EHC system had failed. (The speed channel A and B cards are in series as they perform different functions for the auxiliary speed channel of the EHC system; they are not independent speed channel trains.) The failure of the speed channel card resulted in the auxiliary speed channel of the EHC system sensing an overspeed condition and caused the turbine governor valves to close. Closure of the governor valves, in turn, isolated steam flow to the turbine causing the generator to shed electrical load. The licensee determined that the failure was a random failure and was not maintenance preventable.

The licensee replaced both the speed channel A and B cards for the Unit 2 EHC system. In addition, the licensee planned to perform a modification to address the single point

vulnerability in the EHC system. The inspectors reviewed the RCE and did not identify any performance deficiencies associated with the evaluation or this event. This LER is closed.

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

.4 (Closed) Licensee Event Report 05000266/2012-004-00: Unit 1 Manual Reactor Trip

On August 14, 2012, operators manually tripped the Unit 1 reactor in response to indications of a loss-of-load to the main turbine. The operators responded to the event consistent with their training for a loss-of-load condition. The plant responded to the manual trip as expected.

The licensee performed an RCE and determined that an operational amplifier on the speed channel B card in the EHC system had failed. (The speed channel A and B cards are in series as they perform different functions for the auxiliary speed channel of the EHC system; they are not independent speed channel trains.) The failure of the speed channel card resulted in the auxiliary speed channel of the EHC system sensing a higher turbine speed than the actual turbine speed and caused the turbine governor valves to close. Closure of the governor valves, in turn, isolated the steam flow to turbine causing the generator to shed electrical load. The licensee determined that the failure was a random failure and was not maintenance preventable.

The licensee replaced both the speed channel A and the speed channel B cards for the Unit 1 EHC system. In addition, the licensee planned to perform a modification to address the single point vulnerability in the EHC system. The inspectors reviewed the RCE and did not identify any performance deficiencies associated with the evaluation or this event. This LER is closed.

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

.5 (Closed) Licensee Event Report 05000266/2011-001-00: Loss of Offsite Power to Unit 1 Safeguards Buses

On November 27, 2011, during restoration of High Voltage Station Auxiliary Transformer (HVSAT) 1X03, an undervoltage (UV) condition occurred on Unit 1 SR buses 1A05 and 1A06 that resulted in all four emergency diesel generators (EDGs) starting and EDGs G-01 and G-03 loading onto buses 1A05 and 1A06, respectively.

Prior to the event, the Unit 1 13.8-kiloVolt (kV) buses were cross-connected and powered from Unit 2 HVSAT 2X03. During switchyard realignment involving the restoration of HVSAT 1X03, the bus tie breaker between bus sections H02 and H01 was opened; this led to an UV condition on Unit 1 SR buses 1A05 and 1A06. The 2X03 transformer remained energized throughout the event; however, the fault did not cause lockout of HVSAT 1X03. Because a lockout of HVSAT 1X03 did not occur, an automatic transfer to the redundant offsite power supply did not take place on the SR buses. As a result, the four EDGs started and EDGs G-01 and G-03 loaded onto buses 1A05 and 1A06, respectively. The licensee declared an Unusual Event (UE) based upon the interruption of offsite power to the essential buses and took immediate steps to restore power to the Unit 1 SR buses. Subsequently, the licensee performed an RCE that determined that the specific cause of this event was the failure of all three phases of the high side circuit switcher, an NSR switchyard component, to HVSAT 1X03. As a result

of the corrective actions recommended by the RCE, the licensee took immediate steps to revise the pertinent procedures that required the operators to visually verify the status of the circuit switchers before they are operated.

The inspectors reviewed the RCE and determined that licensee's assessment of the event was adequate, and that there was no violation of regulatory requirements. The inspectors determined that the failure of an NSR switchyard component did not result in any significant impact on the plant because at the time of the event, Unit 1 was in MODE 5 and shutdown cooling was maintained via the SGs. Minimal changes to station operating procedures were implemented to check local circuit switcher indicators for proper configuration prior to and following operation. No performance deficiency was identified. This LER is closed.

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

.6 (Closed) Licensee Event Report 05000301/2011-003-00: Condition Prohibited by Technical Specification 3.8.2, AC Sources-Shutdown

Introduction: A finding of very low safety significance (Green) and associated NCV of TS 3.8.2, "AC Sources - Shutdown," was self-revealed when the licensee's outage-related activities rendered both Unit 2 SR buses inoperable. Specifically, the licensee's outage related activities involved tagging out DC control power to Unit 2 train A and train B safeguards relay circuitry in order to support termination of wiring. This inadvertently rendered EDG G-02 inoperable because the automatic start feature of the associated SW pump was impacted. Also, when the Unit 2 EDG G-04 was taken OOS for surveillance testing, this action resulted in standby emergency power to the safeguards buses 2B03 and 2B04 being inoperable for a period of approximately four hours. This exceeded the completion time for TS 3.8.2, required actions, condition B.1 (Immediately).

Description: On April 8, 2011, during the Unit 2 RFO with Unit 2 in MODE 5 and Unit 1 in MODE 1 (100 percent power), clearance orders were generated to support termination of wiring for the Unit 2 train A and train B safeguards buses. The clearance orders entailed tagging out the DC input breakers to Unit 2 train A and train B safeguards relays circuitry. Subsequent to the clearance orders being hung, the train B EDG G-04, was removed from service for its monthly TS surveillance test. This action resulted in standby emergency power to both the train A and train B safeguards buses being inoperable for a period of approximately four hours. This exceeded the completion time for TS 3.8.2, Condition B.1. Concurrently with the G-04 monthly surveillance test, preparations were being made for the Unit 2 containment integrated leak rate test (ILRT). One of the required actions of the test was to manually test the Unit 2 containment isolation (CI) function. It was not identified that there was an issue until near the end of the G-04 surveillance test when the operators were unable to initiate a CI as part of the ILRT; therefore, this violation was self-revealed. While investigation of this issue was in progress, the G-04 surveillance was completed and the EDG was returned to service.

Removal of G-04 from service for surveillance testing resulted in an unplanned and unidentified entry into TS 3.8.1.G for Unit 1 and TS 3.8.2.B for Unit 2 that rendered standby power to 4160-V buses 2A05 and 2A06 and 480-V buses 2B03 and 2B04 inoperable for approximately four hours. The Completion Time for TS 3.8.2.B is "immediately." The completion time for TS 3.8.1.G is two hours, with subsequent

Condition H requiring that the affected unit be in MODE 3 within 6 hours. The EDG G-04 was returned to service approximately two hours into the Condition H specification.

The TS Bases for TS 3.8.1 stated that the SW pump auto-start feature is required for operability of train A 4160-V standby emergency power sources to SR buses 1A05 or 2A05. The train A EDGs (G-01 and G-02) are dependent upon SW for cooling, while the train B EDGs (G-03 and G-04) are not. Therefore, the auto-start features are not required to support operability of SR buses 1A06 or 2A06 standby emergency sources G-03 or G-04. The clearance order did not affect the SW pump auto-start feature for EDG G-01 and hence EDG G-01 was operable during this event.

With EDG G-04 OOS for surveillance testing and EDG G-02 inoperable due to the SW pump auto-start feature being defeated, standby emergency power was not available for 4160 V buses 2A05 and 2A06. These buses feed 480-V buses 2B03 and 2B04 respectively. Therefore, the loss of standby emergency power to 480-V buses 2B03 and 2B04 for approximately four hours should have resulted in an entry into TS 3.8.2.B for Unit 2 with a Required Action B.1 completion time of "immediately."

The inspectors determined that the licensee failed to identify that standby emergency power TS requirements were adversely impacted when they issued clearance orders to take equipment OOS in order to accomplish outage-related activities. The situation became even more complicated when the licensee took Unit 2 EDG G-04 OOS for a monthly TS surveillance test concurrent with the Unit 2 containment ILRT. One of the required actions of the ILRT was to manually test the Unit 2 CI function; a function that the operators were unable to accomplish, thereby self-revealing the inappropriate system interactions. During the event, the licensee missed opportunities to comply with the TS Limiting Condition for Operation (LCO) due to the plant configuration created by the clearance orders by taking equipment OOS for testing. The first missed opportunity occurred when the DC control power to the Unit 2 train A and train B safeguards buses relay circuitry was tagged out. This rendered the train A EDG G-01 inoperable because the SW pump auto-start feature was defeated but the licensee failed to enter TS LCO 3.8.2.B.1. Subsequently, the licensee took train B EDG G-04 down for monthly surveillance, rendering both the safeguards buses inoperable. This required the licensee to enter TS LCO 3.8.1.G for Unit 1 and TS LCO 3.8.2.B for Unit 2 with subsequent entry into TS 3.8.2.H.

The inspectors reviewed the corrective actions (AR 01639531) and the apparent cause evaluation (ACE), and determined that licensee's assessment of this issue was adequate. The licensee attributed the failure to identify that standby emergency power TS requirements were adversely impacted to licensee personnel relying on their knowledge of the TS rather than validating the assumptions by reviewing the TS Bases. As an immediate corrective action, the licensee took steps to review current and future tagouts for potential plant impact and changed the Notes in Master Data Books, MDB 3.2.12 D16 for Unit 1 and MDB 3.2.12.D22 for Unit 2, to highlight the impact of opening DC control power breakers on SW pumps' auto-features. The licensee's corrective action also included enhancing procedure OI-168 to highlight the interdependence between EDGs G-01 and G-02.

<u>Analysis</u>: The inspectors determined failure to comply with the TS requirements, as identified above, was within the licensee's ability to foresee and correct and was a performance deficiency warranting further review.

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 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, Attachment 0609.04, Tables 2 and 3, and Appendix A, Exhibit 2 for the Mitigating Systems Cornerstone. The inspectors answered "Yes" to the Exhibit 2, Question A.1, for mitigating SSCs, and functionality. The inspectors determined the finding to be of very low safety significance (Green) because at no point were all four EDGs inoperable. EDGs G-01 and G-03 were operable throughout the approximate 4-hour event. Therefore, the ability to mitigate the consequences of a design basis accident (DBA) on the operating unit and to maintain the opposite unit in a safe shutdown condition was not compromised.

This finding has a cross-cutting aspect in the area of human performance, work practices, human error prevention techniques, because the licensee failed to validate the impact of the underlying assumptions associated with the clearance orders on the TS requirements so that the equipment affected are not rendered inoperable (H.4(a)).

<u>Enforcement</u>: Technical Specification 3.8.2 required, in part, that when an LCO is not met in MODES 5 and 6, certain actions are to be taken within specified completion time based on the condition identified. Also, TS 3.8.1 required, in part, that when an LCO is not met in MODES 1, 2, 3, and 4, certain actions are to be taken within specified completion time based on the condition identified.

Contrary to the above, on April 8, 2011, the licensee failed to comply with TS LCO 3.8.2, Condition B.1 when the standby emergency power to 4160-V buses 2A05 and 2A06 and 480-V buses 2B03 and 2B04 were rendered inoperable by tagging out the DC control power. The licensee also failed to comply with TS 3.8.1.G and TS 3.8.1.H for Unit 1 when they took Unit 2 EDG G-04 OOS for TS surveillance testing.

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 AR01639531) to address recurrence (NCV 05000301/2012005-06; Condition Prohibited by Technical Specification 3.8.2, AC Sources-Shutdown). This LER is closed.

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

4OA5 Other Activities

- .1 (Discussed) NRC Temporary (TI) 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, "Wave Run-Up Mitigation Package," and "Site Drainage Walkdown Package," contained the elements as specified in the NEI 12-07, "Walkdown Guidance," document.

The inspectors accompanied the licensee on the walkdowns and verified that the licensee confirmed the following flood protection features:

- visual inspection of the flood protection features was performed if the flood protection feature was relevant;
- external visual inspection for indications of degradation that would prevent its credited function from being performed was performed;
- critical SSC dimensions were measured;
- available physical margin, where applicable, was determined; and
- flood protection feature functionality was determined using either visual observation or by review of other documents.

The inspectors independently performed their walkdown and verified that flood protection features were in place for the following equipment:

- P-32C SW pump (September 26, 2012, circulating water pump house (CWPH)),
- P-32D SW pump (September 26, 2012, CWPH),
- P-32E SW pump (September 26, 2012, CWPH), and
- P-35A electric fire pump and electrical panel (September 26, 2012, CWPH).

The inspectors verified that the six identified noncompliances with current licensing requirements and issues identified in accordance with the 10 CFR 50.54(f) letter, Item 2.g of Enclosure 4, were entered into the licensee's CAP. In addition, issues identified in response to Item 2.g that could challenge risk-significant equipment and the licensee's ability to mitigate the consequences were subject to additional NRC evaluation.

b. Findings

Findings or violations associated with the above-described observations made during the flooding walkdowns, if any, will be documented in the first quarter 2013 integrated IR.

.2 (Discussed) NRC TI 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 walkdown of the following seismic walkdown equipment list (SWEL) checklist items:

- station service transformer 1B03 (September 17, 2012, Turbine Building 26' elevation),
- white 120-V inverter distribution panel 1Y-203 (September 17, 2012, Turbine Building 26' elevation)
- 125-V DC distribution panel D-12 (September 17, 2012, Turbine Building 26' elevation)
- SG HX-1A header atmospheric steam dump control valve 2MS-2016 (September 19, 2012, Unit 2 façade 85' elevation)
- 4.16-kV bus switchgear 1A05 (September 20, 2012, Turbine Building 8' elevation),

- 4.16-kV bus switchgear 2A05 (September 20, 2012, Turbine Building 8' elevation),
- EDG G-04 (October 2, 2012, diesel generator (DG) building),
- EDG starting air receiver T-171A G-04 (October 2, 2012, DG building),
- auxiliary feedwater (AFW) 1P-53 (October 3, 2012, Primary Auxiliary Building (PAB) 8' elevation),
- 1P-53 AFW pump SW supply isolation valve AF-4067 (October 3, 2012, PAB 8' elevation),
- 1P-53 AFW pump recirculation isolation valve AF-4073B (October 3, 2012, PAB 8' elevation), and
- AFW pump recirculation isolation instrument air accumulator T-224B (October 3, 2012, PAB 8' elevation).

Also, the inspectors accompanied the licensee on the area walk-bys of the following:

- vital switchgear room area (September 20, 2012, Turbine Building 8' elevation),
- SFP area (September 19, 2012, PAB 44' elevation), and
- EDG G-04 room area (October 2, 2012, DG building).

The inspectors verified that the licensee confirmed that the following seismic features associated with the SWEL items noted above were free of potential adverse seismic conditions:

- anchorage was free of bent, broken, missing, or loose hardware;
- anchorage was free of corrosion that is more than mild surface oxidation;
- anchorage was free of visible cracks in the concrete near the anchors;
- anchorage configuration was consistent with plant documentation;
- SSCs would not be damaged from impact by nearby equipment or structures;
- overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls were secure and not likely to collapse onto the equipment;
- attached lines had adequate flexibility to avoid damage;
- the area appeared to be free of potentially adverse seismic interactions that could cause flooding or spray in the area;
- the area appeared to be free of potentially adverse seismic interactions that could cause a fire in the area; and
- the area appeared to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding).

The inspectors independently performed their walkdown and verified that the above seismic features as applicable, associated with the following SWEL items were free of potential adverse seismic conditions:

- SW pump P-32A (September 26, 2012, CWPH);
- SW pump P-32B (September 26, 2012, CWPH);
- SW pump P-32F (September 26, 2012, CWPH);
- SW south to north supply header cross-connect valve SW-2091 (September 26, 2012, CWPH);

- component cooling water (CCW) heat exchanger HX-12A (December 19, 2012, PAB 46' elevation);
- CCW heat exchanger HX-12C (December 19, 2012, PAB 46' elevation); and
- CCW heat exchanger outlet header temperature RTD 2TE-621 (December 19, 2012, PAB 46' elevation).

Additionally, inspectors verified that items that could allow the SFP to drain down rapidly were added to the SWEL and these items were walked down by the licensee. Specifically, the inspectors accompanied the licensee on the seismic walkdowns of:

- SFP heat exchanger HX-13A (September 19, 2012, PAB 44' elevation);
- spent fuel cooling pump P-012A (September 19, 2012, PAB 44' elevation);
- SFP heat exchanger inlet valve SW-02927A (September 19, 2012, PAB 44' elevation); and
- SFP heat exchanger outlet valve SW-02930A (September 19, 2012, PAB 44' elevation).

Observations made during the walkdown that could not be determined to be acceptable were identified by the licensee. Specifically on Unit 1, the licensee identified 4 non-conforming, 3 degraded, and 3 unanalyzed conditions during the seismic walkdowns; and 2 non-conforming, 15 degraded, and 2 unanalyzed conditions during the area walk-bys. On Unit 2, the licensee identified 1 non-conforming, 3 degraded, and 2 unanalyzed conditions during the seismic walkdowns; and 1 unanalyzed and 18 degraded conditions during the area walk-bys.

The licensee concluded that none of these conditions represented adverse or potentially adverse seismic conditions as they would not have prevented the equipment from performing its SR function.

b. Findings

Findings or violations associated with the above described observations made during the seismic walkdowns, if any, will be documented in the first quarter 2013 integrated IR.

4OA6 Meetings, Including Exit

.1 Exit Meeting Summary

On January 3, 2013, the inspectors presented the inspection results to Mr. L Meyer and other 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:

- review of the licensee's results of the biennial written examination and the annual operating test (IP 71111.11A) with Mr. R. Admundson, OPS Training NRC Exam Coordinator, on October 18, 2012;
- the results of the inservice inspection with Mr. L. Meyer, Site Vice President, on November 21, 2012; and

• the inspection results for the areas of in-plant airborne radioactivity control and mitigation; and occupational dose assessment with Mr. G. Worley, Radiation Protection Supervisor, on December 27, 2012.

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.

The licensee identified a finding of very low safety significance (Green) and • associated NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control." This regulation requires in part that a test program be established to assure 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, on August 17, 2012, the licensee's test procedure IT-08A, "Cold Start of Turbine-Driven Auxiliary Feed Pump and Valve Test," did not prevent pre-conditioning of the overspeed trip valve (1MS-2082). The cause of the issue was determined to be a result of the procedure allowing valve 1MS-2082 to be stroked in two different manners with only the second stroking being time-tested. Therefore, the initial stroking of the valve preconditioned the valve for the second timed test. The licensee entered this into the CAP as AR01794746 and implemented corrective actions to revise the Units 1 and 2 testing procedures (IT-08A and IT-09A) to stroke time-test the valve for both of these tests to prevent the preconditioning of valve MS-2082 on both units.

The performance deficiency 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 procedure quality, and adversely affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the procedure allowed preconditioning of the Unit 1 valve MS-2082, which could mask its actual as-found condition and result in an inability to verify its operability and potentially make it difficult to determine whether the valve would perform its intended safety function during an event. 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 "No" to 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

<u>Licensee</u>

L. Meyer, Site Vice President

- R. Wright, Plant General Manager
- C. Trezise, Site Engineering Director
- M. Millen, Licensing Manager
- B. Woyak, Program Engineering Manager
- S. Forsha, Program Engineering
- A. Watry, Engineering
- W. Hennessy, Licensing Supervisor
- W. Jensen, Site NDE Level III
- B. Scherwinski, Licensing
- R. Welty, Radiation Protection Manager
- G. Worley, Radiation Protection Supervisor

Nuclear Regulatory Commission

M. Kunowski, Branch Chief, Division of Reactor Projects, Branch 5

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

<u>Opened</u>

05000266/2012005-01; 05000301/2012005-01	NCV	Unauthorized Transient Combustibles (1R05.b(1))
05000266/2012005-02; 05000301/2012005-02	NCV	Failure to Update the Fire Emergency Plan (1R05.b(2))
05000266/2012005-03; 05000301/2012005-03	NCV	Inadequate Scoping of a Non-Safety-Related System Into the Maintenance Rule (1R12)
05000266/2012005-04; 05000301/2012005-04	NCV	Failure to Implement and Maintain Procedures Regarding Breathing Air Quality (2RS3.2)
05000266/2012005-05; 05000301/2012005-05	URI	Unmonitored Neutron Exposure Evaluation (2RS4.4)
05000301/2012005-06	NCV	Condition Prohibited by Technical Specification 3.8.2, AC Sources-Shutdown (4OA3.6)

<u>Closed</u>

05000266/2012005-01; 05000301/2012005-01	NCV	Unauthorized Transient Combustibles (1R05.b(1))
05000266/2012005-02; 05000301/2012005-02	NCV	Failure to Update the Fire Emergency Plan (1R05.b(2))
05000266/2012005-03; 05000301/2012005-03	NCV	Inadequate Scoping of a Non-Safety-Related System Into the Maintenance Rule (1R12)
05000301/2012002-02	URI	Post-Maintenance Test On Main Feedwater Regulating Valve AMSAC Switches Deferred To Later Date (1R19.2)
05000266/2012005-04; 05000301/2012005-04	NCV	Failure to Implement and Maintain Procedures Regarding Breathing Air Quality (2RS3.2)
05000266/2012003-03; 05000301/2012003-03	URI	Selected Issue Follow-Up: Partial Turnover of Extended Power Uprate Modifications (40A2.3)
05000266/2012-002-00; 05000266/2012-002-01; 05000266/2012-002-02	LER	Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater (40A3.2)
05000301/2012-001-00	LER	Unit 2 Manual Reactor Trip (4OA3.3)
05000266/2012-004-00	LER	Unit 1 Manual Reactor Trip (4OA3.4)
05000266/2011-001-00	LER	Loss of Offsite Power to Unit 1 Safeguards Buses (4OA3.5)
05000301/2011-003-00	LER	Condition Prohibited by Technical Specification 3.8.2, AC Sources-Shutdown (4OA3.6)
05000301/2012005-06	NCV	Condition Prohibited by Technical Specification 3.8.2, AC Sources-Shutdown (4OA3.6)

Discussed

2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (4OA5.2)
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

- AOP-13C; Severe Weather Conditions; Revision 27
- AR01731783; Temperature Issues With MFIVs & Support Systems
- AR01791667; Work Coded Burden, Safety, Etc. Needs To Be Verified
- AR01797325; Cold Weather Preps
- AR01798896; EC 276547 Replacement Valves Better Suited For Cold Weather
- AR01798898; Instrument Air Ball Valves Associated With N2 Supply For MFI
- AR01799956; T-32A/B Fuel Oil Tanks Need To Be Sampled For Cold Weather
- AR01800378; Cold Weather Preps For MFIVs
- AR01805585; Winter Readiness WO Moved To WW 1241
- AR01806041; Vibration Alarm 195 Annunciating When Outside Air Temps Low
- AR01806057; Unit 2 RWST Level Indicators Affect By Cold Weather
- AR01807525; Handle Broken On 2RK-33 Door
- AR01807527; Channel 39 On Panel 2FFCP-01A Is In Alarm
- AR01807737; Winter Readiness Preparation Process Deficiencies
- AR01809807; Work Week 1252 Activities Being Requested To Move
- AR01814470; Cold Weather Work Requests Not Completed
- AR01815253; 3 Of 4 Tendon Gallery Doors Found Open
- AR01818243; Main Feed Isolation Valves (MFIVs) Design Issues Associated
- AR01820535; Leak On HX0294 (Cold Weather Issue)
- BG AOP-13C; Severe Weather Conditions; Revision 14
- CRN/ECN EC No. 262425; ECN To EC 12052 To Close Open Item 2.8.19 To Develop Cold Weather Mitigation Strategies; Revision 4; Completed April 30, 2012
- FSAR Section 2.6; Meteorology; UFSAR 2010
- Function Lists For All Maintenance Rule Systems; August 29, 2012
- OI 106; Façade Freeze Protection; Revision 32
- OM 3.30; Operations Snow Emergency Staffing; Revision 3
- OP-AA-102-1002; Seasonal Readiness; Revision 1
- PC 49 Part 4; Auxiliary Building Miscellaneous And Facades; Completed October 4, 2012
- Point Beach Daily Quality Summary; October 30, 2012
- Site Certification Letter For Cold Weather Readiness Period (CWRP) Per OP-AA-102-1002 Seasonal Readiness; 2012

1R04 Equipment Alignment

- 2-SOP-RH-002; Residual Heat Removal System Operation; Revision 7
- ACE 01783695; 2SI-850A, P-10A RHR Pump Sump B Suction Valve Failed To Indicate Full Open During IT 45 Train A
- AR01791581; U2R32: Inspect And Adjust 2SI-850A Indicating Disc As Needed
- CL Index; Revision 677
- Drawing 018977; Auxiliary Coolant System; Revision 54
- NextEra Daily Fleet Messages; November 2, 2012

- NP 2.1.2; Independent Verification And Concurrent Verification; Revision 14
- Station Log; October 31 To November 2, 2012
- Tech Spec Equipment OOS And Fire Impairments; October 30, 2012

1R05 Fire Protection

- 10 CFR 50.59/72.48 Applicability Form; Revision 10
- 10 CFR 50.59/72.48 Pre-Screening Review Form; Revision 6
- AR01714877; 1P-29 Turbine Bearing Oil Low
- AR01798474; EL-009 Green Light Out
- AR01802977; Questions About FEP Procedures And AF Modification
- AR01806992; NRC Walkdown Of Fire Zones 306 & 307 Questions
- Calculation/Addendum Number 2002-0039; Fire Loading Calculation; Completed October 19, 2005
- Calculation/Addendum Number V878-04-CA-1; Combustible Loading Materials Caloric Value Calculation; Completed October 18, 2004
- DG-G11; Environmental Qualification Service Conditions; Revision 8
- Drawing 290585; Fire Protection For Turbine Building, Aux Building & Containment, Elev. 8'; Revisions 18 And 25
- Drawing 290586; Fire Barrier Locations For Turbine Building, Aux Building & Containment, Elev. 8'; Revision 11
- Duke Engineering And Services Fire Area Analysis Summary Report; Fire Areas: A01-A General Plant Area – 8' Elevation And Below, And A23N Auxiliary Feedwater Pump Room (North); August 8, 2005
- Duke Engineering And Services Fire Area Analysis Summary Report; Fire Area: A26 D05 Battery Room; August 8, 2005
- Duke Engineering And Services Fire Area Analysis Summary Report; Fire Area: A25 D06 Battery Room; August 8, 2005
- EC 13399; Repower Valves For TDAFW Pump 2P-29; March 28, 2009
- EC 13403; Replacement MDAFW Pump Power, Instrumentation And Controls Installation; Revision 1; August 4, 2010
- EC 13407; Transition To New Motor-Driven Pump Trains For Units 1 And 2; Attachment C, Appendix R Analysis, PB AFW System Margin Improvement Project
- EC 13507; TDAFW Mini Recirculation Valve Backup Air Supply Unit 1 And 2; June 23, 2010
- FAP 3.0; Fire Attack Plans; Revision 9
- FEP 4.0; Fire Emergency Plan; Revision 5
- FEP 4.1; PAB West And Central-EI. (-)19'; (-)5'; 8' CCQW, CS/SI, AFW; Revision 11
- FEP 4.12; Auxiliary Feedwater Pump And Vital Switchgear Area; Revision 8
- FHAR FZ 113; RHR HX Corridor; Fire Area A01-A; June 2009
- FHAR FZ 115; RHR Heat Exchanger Room Unit 1; Fire Area A01-A; September 2012
- FHAR FZ 119; RHR Heat Exchanger Room Unit 2; Fire Area A01-A; September 2012
- FHAR FZ 304; Auxiliary Feedwater Pump Room; Fire Area A23; September 2012
- FHAR FZ 306; Battery Room D06; Fire Area A25; June 2009
- FHAR FZ 307; Battery Room D05; Fire Area A26; June 2009
- FHAR FZ 311; AFP Tunnel D05; Fire Area A01-E; June 2009
- FHAR; Revision 6
- Fire Protection Evaluation Report; Revision 13
- FP Index; Fire Protection Manual Index; Revision 68
- FPTE 006; Technical Evaluation Of Fire Detector Location Plan At Point Beach Nuclear Plant; Revision 1

- FPTE 008; Technical Evaluation For Appendix R Cable Separation In The Auxiliary Feedwater Pump Room Fire Zone 304; Revision 0
- FSAR Section 5.1; Containment System Structure; UFSAR 2010
- Licensee White Paper Discussion Of Cross-Cuts For Fire Protection Proposed Violations; December 19, 2012
- M-821; Modification Request For Cable Spreading Vital Switchgear Room; November 11, 1981
- NFPA 12A; Code Of Record Halon 1301; 1980
- NFPA 72E; Code Of Record Detector Spacing); 1975
- NP 1.9.6; Plant Cleanliness And Storage; Revision 43
- NP 1.9.9; Transient Combustible Control; Revision 20
- OM 3.27; Control Of Fire Protection & Appendix R Safe Shutdown Equipment; Revision 45
- Renewed Facility Operating License; 50-301/Renewed License No. DPR-27 Amendment 241; 50-266/Renewed License No. DPR-24 Amendment 237
- Screening Evaluation Work Sheet (SEWS); ID No. D-63, 125 VDC Distribution Panel; Completed March 20, 2010
- Seismic Walkdown Checklist (SWC); Equipment ID No. D-63, 125 VDC Distribution Panel
- SFPE Handbook; Section 1/Chapter 9; Ceiling Jet Flows
- Spec Sheet For Purolator Model Number F312; Industrial Strength, 1" & 2" Disposable Panel Filters Fiberglass Media

1R08 Inservice Inspection Activities

- AR01702397; Boric Acid Buildup On Valve 2SI-848L; November 2, 2011
- AR01703348; Main Steam Small Diameter Pipe To Snubber 1-HS-8 Missing Brackets
- AR01703792; Missed ISI Inspections
- AR01706516; Radiographic Indication On EB-09 Piping Weld Violates Code
- AR01712385; Need to Pull Bolt and Have VT-3 Performed
- AR01714790; Active Leak On Cap Downstream Of 1RC-526A
- AR01756448; 2RH-742A Has Boric Acid Leak
- AR01756450; 2RH-733B Found With Boric Acid Leak; April 18, 2012
- AR01791837; Untimely Documentation Of Repair/Replacement Activities
- AR01818780; Boric Acid
- AR01820722; Cavity Cooler Piping Wall Thickness Concerns
- AR01821768; NRC Concern Regarding BA Walkdowns During Forced Outage
- AR01821776; Boric Acid Walkdowns For Forced Outages
- BACC 11-369; BA Leak On RHR HX Inlet Valve 1RH-715B; December 12, 2011
- BACC 12-106A; BA Leak on RHR Return to RWST Bypass Valve 2RH-742A; October 16, 2012
- BACC Evaluation 11-336; Leaking From Vent Tube Cap 2SI-848L; November 3, 2011
- BACC Evaluation 11-423; Packing Leak At 1RC-526A; December 10, 2011
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- Function List For EHC; August 21, 2012
- NP 7.7.4; Scope And Risk Significant Determination For The Maintenance Rule; Revision 19
- NP 7.7.5 Maintenance Rule Monitoring; Revision 22
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- Narrative Log Report; October 26 To October 31, 2012
- NP 10.1.1; Tech Spec And Administrative LCO Action Condition Entry And Tracking
- NP 10.3.6; Shutdown Safety Review And Safety Assessment
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- AR01789526; EQ Design Basis Temperatures For Pipeway 4
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- AR01794113; Potential Temporary Modification (TMod)
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- AR01820981; Safety Stop Work Order Was Not Heeded
- AR01821005; FTS Modification Projected To Exceed The Dose Estimate
- AR01821310; Fuel Transfer System Fiber Optic Penetration Fit-Up Problem
- AR01821520; Worker Protective Clothing Caught In FTS Rotating Equipment
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- AR01812335; 2HC-478 Atmospheric Controller Failure
- AR01813284; Spare Controller Not Set Up Properly
- AR01813933; Problems Encountered Returning 2HC-478/2PC-478 To Service
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- AD-AA-101-1004-F02; Waiver Request Form; Revision 3
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- AR01819223; U-2 Containment Equipment Hatch Shield Blocks Degraded
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- AR01819941; 2C-1 Equipment Hatch Flange Scratches And Indentations
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- AR01822020; Wood Observed Embedded In Floor Of 8 El. In Containment
- AR01822045; 2P-29 Pump Hold Down Bolts Turned Down
- AR01822072; Bearing Issues On 2P-28A And 2P-28B
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- AR01822282; 2X-01A-C, 30MX Relay Wiring Incorrect
- AR01822296; 2HC-468 Output Meter OOT
- AR01822359; Gasket Material On Fuel Assembly KK-53
- AR01822379; Fuel Assembly JJ-62 FME
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- AR01822582; 2P-029-T Governor Valve B To B Gasket Fit Improvement
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- AR01823422; Bolt Head Not In Full Contact With Clevis Surface
- AR01823456; SG Wide Range Level Instrumentation Piping Bent
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- AR01824372; Fuku. Seismic WD: Fire Prot Pipe In G-01 & G-02 Rooms
- AR01824383; During WO 40091889 Task 1 A Required VT-1 Not Completed
- AR01824455; Functional Criteria Not Met, Needs Disposition
- AR01824512; Circular Indications On Fuel Transfer Tube Flange Bolting
- AR01824557; Foreign Material In Secondary Side Of 2HX-001A
- AR01824638; 2P-53 Recirc Valves To Relay Found OOT Low
- AR01824658; U2R32 Condenser SC-1A And SC-1B Tube Plugging
- AR01824770; 2-86/A06, Failed To Actuate, Coil Opened During Testing
- AR01824805; 2R32 2ICP 4.29-3 G-11 & Bank D Analog CAL Chks
- AR01824814; Wire Found On Secondary Side Of 2HX-0018
- AR01824900; Rigging Incident Occurred While Righting New CW Pump 2P-30B
- AR01824920; Studs On Governor Valve Need Replacement
- AR01825035; U2 "B" SG Hot Leg PRI Manway Cover Gap Did Not Meet Criteria
- AR01825181; Resolution Of D-72 Fuse OBN
- AR01825415; SG A Manway Side Handhole Cover Pitted
- AR01825552; 2ST-05938 Trap Bonnet To Seat Threads Are Cross Threaded
- AR01825947; Non-Radiation Resistant Lugs
- AR01826276; IT-405C Acceptance Criteria Not Met On 2FI-4037
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- AR01827261; Post U2 Outage Containment Closeout Inspection Discrepancies
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- MA-AA-101-1000; Foreign Material Exclusion Procedure; Revision 7
- Mode Restraint Report For Shutdown No. 2R32; November 27, 2012
- MR No. 98-026; U1/U2 Expansion Of RCP Lube Oil Collection System; Completed March 25, 1998
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- NP 10.3.6; Shutdown Safety Review And Safety Assessment; Revision 41
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- OP 3B; Reactor Shutdown; Revision 44

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- OP 4E; Reactor Coolant System Lowered Inventory Requirements, Unit 2; Revision 5
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- SCR 2012-0176; Storage Of Reactor Coolant Pump Motor Lift Rig, 2Z-994, Inside Unit 2 Containment; Completed November 6, 2012
- U2R32 Outage Chemistry Shutdown JITT; October 19, 2012
- U2R32 Outage Safety Review Supporting Documentation; October 21, 2012
- U2R32 Shutdown JITT Schedule; October 17, 2012
- Unit 2 Refueling Outage 26; Containment Insulation And Debris Inventory For GSI-191; Completed February 11, 2004

1R22 Surveillance Testing

- 0-SOP-IC-002; Technical Specifications LCO-Instrument Cross Reference; Revision 19
- 2ICP 05.055; AMSAC Refueling Test And Calibration; Completed March 2, 2011
- 2ICP 05.055; AMSAC Refueling Test And Calibration; Revision 7
- ACE01800445; 2WL-1723, U2C Sump A Drain CIV Failed Its Close Stroke Time By Closing Faster Than Recent Timings; Revision 0
- AR01758931; W.O. 40154097-01, AMSAC MFRV Operational Check Unsat
- AR01794741; 1P-029-T Outboard Bearing Stabilized At 230F During IT-08A
- AR01794746; Preconditioning Issue In IT-08A TDAFP Test
- AR01799822; SW-LW-61 Performance Erratic
- AR01800445; 2WL-1723 CIV Stroked Too Fast During IT-65 Testing
- AR01803675; Engineering Not Complete To Support Outage Activity
- AR01807205; Unexpected Response From 1HC-466A And 1HC-476A
- Background Document; Inservice Testing Program, Fourth Interval; Revision 0
- Calculation No. 01109-C-024; Vendor Calculation/Evaluation Review Form; June 26, 2003
- Calculation No. 2280C; Vendor Calculation/Evaluation Review Form; June 26, 2003
- CE 01794746-01; IT-08A 1MS-2082 Is Stroked 3 Times, But Procedure Only Times It During 2nd And 3rd Stroke; August 31, 2012
- CLRT Testing Program Basis Document; Revision 12
- Evaluation Of Decrease In Stroke Time For 2WL-1723; September 6, 2012
- Foxboro Vendor Manual; Differential Pressure Transmitters N-E13DM Series Style A&B; Revision 21; June 17, 2010
- Foxboro Vendor Manual; N-E11 And N-E13 Series Transmitters; MI 020-160; November 1988
- FSAR Section 5.2; Containment Isolation System; UFSAR 2010
- InService Testing Owners' Group (ISTOG) Position Paper; Position Of IST Component Preconditioning; Approved February 28, 2011
- Inservice Testing Program Document; PBNP Inservice Testing Program 5th Interval; Revision 6
- IT 65; Containment Isolation Valves (Quarterly) U-2; Completed September 6, 2012
- IT-08A; Cold Start Of Turbine-Driven Auxiliary Feed Pump And Valve Test (Quarterly) Unit 1; Completed August 17, 2012
- IT-72; Service Water Valves (Quarterly); Completed August 22, 2012

- ML 9704010236; NRC Information Notice 97-16; Preconditioning Of Plant Structures, Systems, And Components Before ASME Code Inservice Testing Or Technical Specification Surveillance Testing; April 4, 1997
- NP 10.2.7; Post-Maintenance / Return To Service Testing; Revision 9
- Nuclear Power Business Unit Units 1 And 2; Inservice Testing Program Table WD; Revision 1
- PBNP Units 1 And 2; Inservice Testing Program Table SW; Revision 6
- PBNP Inservice Testing Background Valve Data Sheet; Service Water System, Valve ID No. 0SW-LW-61, 1HX-150/2HS-142/143 Inlet Temp Control Valve; Revision 0
- PBNP Inservice Testing Background Valve Data Sheet; Waste Disposal System, Valve ID No. 1WL-01723, Sump A Drain To Aux Bldg Sump Isolation Valve; Revision 0
- Pre-Conditioning Action 02 (Benchmark) For AR01794746-02; November 1, 2012
- Site Information Repository Equipment Line Item; WL System, ID No. WL-01723, U2C Sump A Drain; September 7, 2012
- Site Information Repository Equipment Line Item; WL System, ID No. SW-LW-061, 1HX-150/2HX-150/HX-142/143 Inlet Temp Control; September 7, 2012
- Station Log; August 16, 2012
- Station Log; Various Dates From September 4 To September 7, 2012
- SW-LW-61 IST Stroke Shut Time Data; From February 24, 2010 To June 24, 2012
- TRM 4.7; Inservice Testing Program; Revision 1
- TS 3.3.3; PAM Instrumentation; Unit 1 Amendment No. 215, Unit 2 Amendment No. 220
- WO 40154097-01; Test Function Of The 2CS-466 & 2CS-476 AMSAC Input Limit Switches
- WO 40169518; SW-LW-061 / Inspect / Replace Associated Filter Regulator
- 1EP4 Emergency Action Level and Emergency Plan Changes
- EPIP 1.1; Course Of Actions; Revision 63
- EPIP 1.3; Dose Assessment And Protective Action Recommendations; Revision 43

2RS3 In-Plant Airborne Radioactivity Control and Mitigation

- ALARA Package For RWP 12-2030; Fuel Transfer System Modifications; Revision 03
- AR01716227; Emergent Respirator Fit Testing Issues
- AR01738772; Some Respiratory Protection Equipment Maintenance Not Performed
- AR01788395; Training Requirements For ADFLO Respirators
- HPIP 4.51.1; Maintenance, Storage And Inspection Of Respiratory Equipment; Revision 17
- HPIP 4.51.4; Scott Self-Contained Breathing Apparatus; Revision 10
- HPIP 4.56; Testing Supplied Air For Air-Line Respiratory Equipment; Revision 23
- PBF-4077a; Respiratory Protection Facepiece Inspection And Maintenance Record; Various Dates
- PBF-4077c; Self-Contained Breathing Apparatus Inspection And Maintenance Record; Various Dates
- PC 68; Biweekly Operation And Check Of The Baron II High Pressure Breathing Air System; Various Dates
- RDW 14.2.1; Leak Testing Portable HEPA Filters And Vacuum Cleaners; Revision 2
- RDW 14.2; Use Of Vacuum Cleaners And HEPA Units In Radiologically Controlled Areas; Revision 9

2RS4 Occupational Dose Assessment

- AR01735480; All EPD N2 Neutron Dosimeter Calibrations Expired
- AR01752883; Lapel Air Samplers Found Out Of Calibration For RP Use

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- HP 1.1; Personnel Dose Determinations And Reporting; Revision 11
- HPIP 1.51; SDD/PDD Review; Revision 12
- HPIP 1.59; Dosimetry Irregularities; Revision 17
- HPIP 1.60; Calculating Shallow And Deep Dose Rates Due To Skin Contamination; Revision 14
- HPIP 1.63; Handling Instructions For Vendor TLD Badges And Results; Revision 14
- HPIP 1.65 Personnel Neutron Exposure Monitoring; Revision 20
- HPIP 1.66; Dosimetry Placement For Extremity And Multiple Whole Body Locations And Extremity Dose Determination; Revision 15
- HPIP 1.68; Calculation Of Committed Dose Equivalent; Revision 5
- PBF-4056; Whole Body Count Evaluation; Various Dates
- RP-AA-101-2004; Method For Monitoring And Assigning Effective Dose Equivalent (EDE) For High Dose Gradient Work; Revision 2

4OA1 Performance Indicator Verification

- AR01639595; Tacky Substance Prevents Contactor From Making Up
- AR01643687; V/V Converter Found Failed During Calibration
- AR01647848; Fire Dampers Found Blocked Open
- AR01648858; Unexpected Conditions Found At Penetration
- AR01657810-15; Safety System Functional Failure Review; September 5 And October 26, 2012
- AR01694942; Large Amount Of Combustible Material Found In Exclusion Zone
- AR01709458; Penetration M-7-3-25-N133 Found With No Cap Covers
- LER 2010-001-01; Engineered Safety Features Steam Line Pressure Dynamics Modules Discovered Outside Of Technical Specification Values; January 20, 2011
- LER 2010-002-00; Engineered Safety Features Steam Line Pressure Dynamics Modules Discovered Outside Of Technical Specification Values; May 3, 2011
- LER 2010-003-00; Technical Specification Required Shutdown; February 7, 2011
- LER 2010-004-00; Improper Controls For Breach Of HELB Barrier; February 18, 2011
- LER 2010-005-00; Improper Controls For Breach Of HELB Barrier; February 18, 2011
- LER 2011-002-00; Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside Of Technical Specification Values; May 3, 2011
- NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 6; October 2009
- NP 8.4.17; PBNP Flooding Barrier Control; Revision 14
- Point Beach PI Reporting Data; 4Q10 Through 3Q11 For Safety System Functional Failures
- RMP 9011-1; Safe Shutdown Fire Door Inspections; Revision 144
- RMP 9011-2; Industrial Fire Door, HELB Door And Seismic 2/1 Door Inspections; Revision 8

4OA2 Identification and Resolution of Problems

- 2ICP 05.055; AMSAC Refueling Test And Calibration; Completed November 1, 2012
- ACE 1742650-01; 2011 Number Of Identified Rework Events Increased Sharply From First Trimester To Third Trimester; April 19, 2012
- AD-AA-100-1004; Preparation, Revision, Review / Approval Of Procedures; Revision 8
- AD-AA-100-1005; Temporary Changes To Procedures; Revision 4
- AR01697405; Power Piping Records Illegible And Lacking Traceability
- AR01706282; EC 262702 Was Closed Without Completing Modification
- AR01706593; Trend Issue With Outage Mode Assignments
- AR01707375; Missing Critical Equipment Coded

- AR01709314; Battery Backup Not Provided For Fire Panel C-303 - AR01713685; AMSAC Inputs From MFIVs Not Functionally Tested - AR01714112; U1 Sample Lines Crossconnected – Update – Ref. AR 1713013 - AR01716960; EPU Action Closed Without Doing Full Deliverable - AR01719707: Modification Closeout Exceeded 90 Days - AR01720795; EC12053 Design Desc Differs From FIC-466 & 476A&B FAT - AR01720922; Improper Closeout Of AR 01670934 - AR01720924; Temp Info Tag 06-015 Hanging For Over Five Years - AR01720927; CA Completed For AR 01670934 Revealed Issue - AR01721159; Duplicate Penetration Numbers Shown On TSIL MS-3-26 Sh. 1 - AR01721892; Missing Documents In Completed EPU Record AR01722672; Effectiveness Review EFR 1369843-22 Determined Not Effective - AR01722862; Incorrect And Incomplete Engineering Walk Down - AR01723721; Admin Issues With Mod Pkgs And Fire Seal Log AR01724745; Failed To Identify Impacted Document For Mod EC259679 - AR01725583; Modification Closeout Exceeds 90 Day Requirement - AR01725589; Modification Closeout Exceeds 90 Day Requirement - AR01726469; Temp Info Tag 06-015 Hanging For Over Five Years AR01726949; B52-DB25-020 Wring Found Incorrect Post Refurbishment - AR01727980; G-05 Turning Gear Exerciser Timer Not Counting Down - AR01728250; Station Has No Procedure For Operating New DMIM/LPMS System - AR01729232; Procedure 0-TS-EP-001 Not Revised After Implementation Of Mod - AR01729830; Effectiveness Review Of CAPR 01369343-05 - AR01730567; Design Modification EC258505 Does Not Reflect As-Built - AR01730859; PCR And Associated CR Potentially Improperly Closed/Tracked AR01732474; EPU DCC Correspondence Turnover - AR01732882; Design Output Document Not Updated Prior To Mod Closeout AR01733329: As-Build Cable Information Not Recorded In Modification WOs - AR01733417: Mod Improperly Closed Out Without Update All Documents - AR01734137; EC 275388 Power Range Overpower Rod Stop STPT Implementation - AR01735239; Equipment From EC 273303 For 1B-42 Temp Mod Was Not Removed - AR01738520; Master Data Book For 2B-41 Not Updated For EPU Mod - AR01738530; Eng. Equivalencies Did Not Evaluate All Critical Characteristics - AR01742650; Self Evaluation Report - Rework Events - AR01742977; FSAR Revision Not Assessed For Impact On Training Materials - AR01743915; 2012 Mid-Cycle: Many Temporary Labels Installed Due To EPU AR01744121; Documents Not Updated As A Result Of Plant Changes - AR01746646; Calc Not Updated Prior To Closeout Of Mod EC258425 AR01749819: Modifications In An Active Status For Greater Than One Year - AR01750707; EPU Open Items System Engineering Will Prioritize - AR01750713; EPU Open Items That Design Engineering Will Prioritize AR01752553; Procedural Requirements Missed For Calculation 96-0147 Revs - AR01753812; Mod Closed Out Prior To All Documents Updated AR01753838; Affect Documents Are Not On ADL Of Modification EC - AR01754748; PBSA-ENG-12-01 Affected Docs Not Updated For EC Closeout - AR01754749; PBSA-ENG-12-01: Potential Trend In Field Installation Errors AR01763209; Docs Located On ECS Can Not Be Issued Due To Various Reasons AR01770239; Effectiveness Review EFR 1369843-24 Determined Not Effective - AR01773581; Verify 2CS-3124 And 2CS-3125 MFIV Wiring Is Correct - AR01775841; Lack Of Rigor In Engineering Evaluation Of Code Requirements
- AR01776795; Drawing Conflict For 2P-53, MDAFP, Supply Breaker

- AR01778752; Valves For 1P-53 AFW Pump Not Installed
- AR01779753; 1Q12 NRC URI Modification Turnover Process
- AR01782384; EC 272570 Closed Prior To Field Work Being Performed
- AR01782385; EC 272902 Closed Prior To Field Work Being Performed
- AR01782388; EC 272974 Closed Prior To Field Work Being Performed
- AR01782389; EC 274609 Closed Prior To Field Work Being Performed
- AR01782391; EC 274711 Closed Prior To Field Work Being Performed
- AR01782395; EPU Modification Closure Not In Accordance With Procedures
- AR01808479; Inadequate Mod Justification And Closeout (EPU GSU XFRM Mod)
- AR01808710; 2CS-3124 & 3125 MFIV Train A & B Isolation Valves Wiring
- AR01818636; Point Beach Uses Mode Process Inconsistent With Process
- AR01821349; Perform Extent Of Condition On 1X-018, Common Trouble Annunc
- AR01826344; Modification Turnovers And Closeouts
- AR01830816; Replacement Scales And Name Plates In The MDAFW Systems
- EC 276962; PAB PW #4 Temperature (Room 162E) Increasing. Eval #2012-0001 Evaluates 1&2 PT-949 To 108 Degrees F; July 26, 2012
- FP-E-MOD-10; Modification Turnover And Closeout; Revision 12
- Log Entries Report; Various Dates From September 20 To December 12, 2011
- Modification No. EC 13407; Transition To New Motor-Driven AFW Pump Systems For Units 1 And 2; May 9, 2011
- PB Daily Quality Summary; January 10, 2012
- PB Nuclear Long Range Plan Effectiveness Indicator; 2011 Projects List; January 4, 2012
- PBNP Outage Modification Lists; U2R31 And U1R33 Modifications; June 6, 2012
- PBTP 206; Station Uprate Transition To New AFW Pump Trains, AST/CREFS Upgrades And Unit 2 EPU Test Plan; Completed May 27, 2011
- Station Log; Various Dates From November 9 To December 12, 2011, And February 3 To April 12, 2012
- Turnover Control Form For EC 12076 (DCP-258504); June 5, 2011
- Turnover Control Form For EC 13407 (DCP 259835); June 3, 2011
- WO 00295640; 2PT-949 Replace Transmitter
- WO 00295641; 2PT-950 Replace Transmitter
- WO 00295642; 2PT-969 Replace Transmitter
- WO 00295646; 2SC-966C-S Replace Solenoid Valve
- WO 0300992; Replace Solenoid Valve At Least Every 5.7 Years Per ASCO EQMR Sheet
- WO 9934578; Replace Transmitter At Least Every 23.3 Years Per EQMR
- WO 9934580; Replace Transmitter At Least Every 23.3 Years Per EQMR

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

- 2ICP 05.022; Feedwater Control; As Left And As Found, Completed October 12, 2012
- AR01768931; TDAFWP Coupling Degraded During IT 08A Run
- AR01768931-22; Safety System Functional Failure Review; July 30, 2012
- AR01780054; Unit 2 Manual Reactor Trip
- AR01793914; Unit 1 Manual Reactor Trip
- AR01812335; 2HC-478 Atmospheric Controller Failure
- AR01813284; Spare Controller Not Set Up Properly
- AR01813933; Problems Encountered Returning 2HC-478/2PC-478 To Service
- AR01814169; U2 "A" Atmospheric Steam Dump And A And B SRVS
- EN 48189; Unit 1 Manual Reactor Trip; August 14, 2012
- EN 48402; Unit 2 Steam Generator B Atmospheric Steam Dump Valve (ADV) Opened While In Automatic Control; October 12, 2012

- FSAR Section 1.0; Introduction And Summary; UFSAR 2010
- IT 95 Train B; Atmospheric Steam Dump Valve Train B Unit 2; Completed October 13, 2012
- LER 2012-001-00; Unit 2 Manual Reactor Trip; August 26, 2012
- LER 2012-002-01; Condition Prohibited By Technical Specification 3.7.5, Auxiliary Feedwater; September 20, 2012
- LER 2012-004-00; Unit 1 Manual Reactor Trip; October 3, 2012
- LERs 266/2012-002-02; Condition Prohibited By Technical Specification 3.7.5, Auxiliary Feedwater; December 18, 2012
- Maintenance Rule Evaluation Of 1P-029 Degraded Coupling; June 21, 2012
- MI 32.1; Flange And Closure Bolting; Revision 21
- MRFF 01780054-01; 2C-039 Electro Hydraulic Control; September 5, 2012
- MRFF 01793914-01; 1C-039 Electro Hydraulic Control; September 4, 2012
- NextEra Energy Point Beach LLC Docket No. 50-301; Renewed Facility Operating License; Renewed License No. DPR-27; Amendment No. 241
- NUREG-1022; Event Reporting Guidelines, 10 CFR 50.72 And 50.73; Revision 2
- OE Report For CR 01780054; Unit 2 Manual Reactor Trip; July 3, 2012
- OP 2A Unit 2; Normal Power Operation Unit 2; Revision 2
- RCE 01768931-03; 1P-29 TDAFWP Coupling Degraded During IT 08A Run; August 2, 2012
- RCE 01780054; Unit 2 Manual Reactor Trip; August 7, 2012
- RCE 01793914; Unit 1 Manual Reactor Trip; September 18, 2012
- RMP 9201; Control And Documentation For Troubleshooting And Repair Activities; Completed October 12, 2012
- Station Log; October 12, 2012
- TAR 01768931; TDAFWP Coupling Ejected Pieces During Run; Revision 1
- TRM 3.3.2; Leading Edge Flow Meter (LEFM); Unit 1 Amendment No. 241, Unit 2 Amendment No. 245
- TS 3.7.4; ADV Flowpaths; Unit 1 Amendment No. 215, Unit 2 Amendment No. 220
- TS Bases 3.7.4; ADV Atmospheric Dump Valves (ADVs) Flowpaths; November 18, 2003

40A5 Other Activities

- 0-SOP-13.8KV-H02; H-02, 13.8KV Bus; Revision 19
- 0-SOP-13.8KV-H03; H-03, 13.8KV Bus; Revision 15
- ACE 01639531; Inoperable Condition Went Unrecognized Regarding Standby Emergency Power To Unit 2, Train A 4161 V AC Bus 2A-05; Revision 02
- AR01629378; 2PM-468A And 2PM-483A Found Out Of Tech Spec Limit
- AR01639531; 2A-05 Safeguards Bus Standby Emergency Power Inoperability
- AR01690034; Determine Actions To Qualify P-035B For IER 11-4 Use
- AR01709957; Loss Of 1X-03 Station Transformer
- AR01709993; 1F89-112 Circuit Switcher FIP Team
- AR01754749; Potential Trend In Field Installation Errors; April 12, 2012
- AR01778752; Valves For 1P-53 AFW Pump Not Installed; June 23, 2012
- AR01782384; EC 272570 Closed Prior To Field Work Being Performed; July 6, 2012
- AR01782385; EC 272902 Closed Prior To Field Work Being Performed; July 6, 2012
- AR01782388; EC 272974 Closed Prior To Field Work Being Performed; July 6, 2012
- AR01782391; EC 274711 Closed Prior To Field Work Being Performed; July 6, 2012
- AR01782395; EPU Modification Closure Not In Accordance With Procedures; July 6, 2012
- AR01787741; PCR To OI 39
- AR01796596; B311C-B854D / Flooding Inspection Of 1B311C-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 - AR01797748; Post-Fukushima Seismic Verification Unit 2 Containment - AR01799967; G-01 / Flooding Walkdown Of G-01 - 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 - 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, El 66 Above SFP HX Area, T-161C - AR01805017; Fuku Seismic WD, EI 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, EI 66 Above SFP HX Area, RX Eng Stor Cabin - AR01805062; Fuku Seismic WD, EI 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 - 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 - AR01809089; Small Available Physical Margin (APM) On Components - AR01809095; Deficiencies In PC 80 Part 7 Lake Level Determination - AR01809100; Storm Drainage/Inadequate 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 - 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 - 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 AR01816808; 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
- AR01819033; Post-Fukushima Seismic Walkdown Verification Of 2B-32 Elect
- AR01819423; PCR for 2ICP 05-055, Step 5.11.94 Should Not Exist
- AR01819430; 2ICP 05-055 Procedure Incorrect
- AR01819633; Wire Inside 2C-156 Is Being Stressed
- AR01821349, Perform Extent Of Condition On 1X-01B, Common Trouble Annunciator; November 8, 2012
- AR01821867; Fuku Seismic WD: U2F : Unanchored Platform Is Safety Hazard
- AR01821867; Fuku Seismic WD: 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
- AR01823939; Fuku Seismic WD: Interaction Concern Panel D-26
- AR01824199; Fuku Seismic WD: Interaction Concern DY-03 & DY-0C
- AR01830816, Replacement Scales And Name Plates In The CR For MDAFW Systems
- Calculation No. PBNP-1C-10; Foxboro 66RD-OLA Lead/Lag Module Drift Calculation; Revision 0; February 16, 2011
- Condition Reports Initiated November 14, 2012
- Condition Reports Initiated October 11, 2012
- Condition Reports Initiated October 25, 2012
- Condition Reports Initiated October 25, 2012
- CRN/ECN No. 271185-0; Steam Pressure Lead/Lag Modules Require A Minimum Lead Time Constant; March 8, 2011
- Engineering Pre-Job Briefing For PC 80 Part 7; September 24, 2012
- EPRI 1025286; Seismic Walkdown Guidance For Resolution Of Fukushima Near-Term Task Force Recommendation 2.3: Seismic; Draft 7 Report, May 2012
- ESF System FoxBoro 66RC-OLA; Performance Monitoring Plan; January 20, 2011
- FP-E-MOD-10; Modification Turnover And Closeout; Revision 12
- LER 2011-001-00; Loss Of Offsite Power To Unit 1 Safeguards Buses; January 25, 2012
- LER 2011-002-00; Engineered Safety Feature Steam Line Pressure Dynamics Modules Discovered Outside Of Technical Specification Values; May 3, 2011
- LER 2011-003-00; Condition Prohibited By Technical Specification 3.8.2. AC Sources Shutdown; June 7, 2011
- Life Cycle Management Plan; PBNP Switchyard; Revision 1; Completed July 18, 2012
- MDB 3.2.12 D16; DC Distribution; Revision 10
- MDB 3.2.12 D22; DC Distribution; Revision 13
- MRFF 01629378; ESF/RP; April 11, 2011
- MRFF 01639531-02; Maintenance Rule Evaluation Per NP 7.7.5 Appendix C; April 21, 2011
- MRFF 01709993-01; Maintenance Rule Evaluation; December 18, 2011CA 01709993; Assess 1F89-112 Circuit Switcher Failure For Reportability Under 10 CFR 50.73(a)(2)(v); January 9, 2012
- NARS Form For EN 47478; November 27, 2011, 0422, 0843 EST
- NEI 12-07; Guidelines For Performing Verification Walkdowns Of Plant Flood Protection Features; May 2012; Revision 0-A
- NP 1.1.4; Use And Adherence Of Procedures And Work Instructions; Revision 28

- NRC 2012-0100; Letter From NextEra Energy Point Beach To NRC; Subject: Response To 10 CFR 50.54(f) Request For Information Regarding Near-Term Task Force Recommendations 2.3, Flooding; November 20, 2012
- NTTF 2.3 Flooding Walkdowns; PBNP Walkdown Guidelines; September 18, 2012
- OI 168; Emergency Diesel Generator Operability; Revision 10Draft
- OI 39; Controlled Side Ventilation, Rev 32 Draft with 50.59 Pre-Screening Review
- PBF-2032 Rev 97; Turbine Building Log; 1F89-112 Inspection
- PBN ESI 04 LPACH; Engineering Support Personnel; Completed May 3, 2012
- PBN MST CNT 12-01; Circuit Switcher And Output Breaker; Completed May 29, 2012
- PBNP Loss Of Power Unusual Event Due To SWYD Switching Failure Lessons Learned (AR 01709993-13); March 29, 2012
- PBNP NTTF 2.3 Flooding Walkdown; Walkdown Package Transmittal; CWPH / Jersey Barrier Simulation Package
- PBNP NTTF 2.3 Flooding Walkdown; Walkdown Package Transmittal; Storm Drains Package
- PBNP NTTF 2.3 Flooding Walkdown; Walkdown Package Transmittal; Subgrade Walls Package
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- PBTP 206; Station Uprate Transition To New AFW Pump Trains AST/CREFS Upgrades And Unit 2 EPU Test Plan; Revision 2
- PC 80 Part 7; Lake Water Level Determination; Revision 3
- PMCR 01746642; Visual Inspection / Cleaning SWYD Panels
- Rapid OE Report; CR 01709957 / 01709993; Completed November 28, 2011
- RCA For CR01709993; 1F89-112 Circuit Switcher Failure; January 4, 2012
- Seismic Walkdown Checklist (SWC) For 1A-05; September 21, 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
- Seismic Walkdown Checklist (SWC) For 2MS-02016; September 19, 2012
- 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 G-04; October 2, 2012
- Seismic Walkdown Checklist (SWC) For HX-013A; September 19, 2012
- Seismic Walkdown Checklist (SWC) For P-012A; September 19, 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 (SWEL) For The Requirement 2.3 Walkdown; PBNP Unit 1; November 22, 2012
- Selection Of The Seismic Walkdown Equipment List (SWEL) For The Requirement 2.3 Walkdown; PBNP Unit 2; November 22, 2012
- Station Log; November 27, 2011
- TAR 01629378-02; U2 ESF Steam Line Pressure Dynamics Out Of Tolerance; Revision 0
- Various Turnover Control Forms For DCP 259835; Transition To AFW EPU Conditions; May 22, 2011
- VTM S&C Circuit-Switcher Mark II; January 1, 1969
- Walkdown Package For CWPH; September 26, 2012

- Walkdown Package For Drainage Areas; September 25, 2012
- Walkdown Record For CWPH Yard Area; August 13, 2012
- Walkdown Record For East Plant Yard; September 25, 2012
- Walkdown Record For North Plant Yard; September 25, 2012
- Walkdown Record For South Plant Yard; September 25, 2012
- Walkdown Record For South SY And South Of Plant PA; September 25, 2012
- WO 40075330; 2PM-00483A / Refurbish Module And Install 8.2 MEG Resistor
- WO Plan For F89-112, 1X-03 HV Stn Aux Xfmr High Side Circuit Switcher

LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluation
ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
ALARA	As-Low-As-Is-Reasonably-Achievable
AMSAC	Anticipated Transient Without Scram Mitigating System Actuation Circuitry
AR	Action Request
ASME	American Society of Mechanical Engineers
BA	Boric Acid
BAC	Boric Acid Corrosion
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CI	Containment Isolation
CIV	Containment Isolation Valve
CR	Condition Report
CS	Containment Spray
CWPH	Circulating Water Pump House
DBA	Design Basis Accident
DC	Direct Current
DG	Diesel Generator
DNBR	Departure From Nucleate Boiling Ratio
DRP	Division of Reactor Projects
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EHC	Electrohydraulic Control
EP	Emergency Plan
EPIP	Emergency Plan Implementing Procedure
EPRI	Electric Power Research Institute
EPU	Extended Power Uprate
ET	Eddy Current
FEP	Fire Emergency Plan
FP	Fire Protection
FPE	Fire Protection Engineer
FPER	Fire Protection Evaluation Report
FPP	Fire Protection Program
FSAR	Final Safety Analysis Report
FW	Feedwater
FZ	Fire Zone
HVSAT	High Voltage Station Auxiliary Transformer
HX	Heat Exchanger
ILRT	Integrated Leak Rate Test
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
ISI	Inservice Inspection
IST	Inservice Testing
JPM	Job Performance Measure
kV	KiloVolt
LCO	Limiting Condition for Operation
200	

LER MDB MFRV mRem MSLB NCV NDE NEI NP NRC NSR OOS OPAT OSP OTAT PAB PARS PC PI PMT PORV psig RCA RCE RCS RFO RG RHR RP SCBA SDP SFP SG SI SR SCBA SDP SFP SG SI SR SSC SW SWEL TDAFW TI TMOD TS UE URI UV	Licensee Event Report Master Data Book Main Feedwater Relief Valve Millirem Main Steam Line Break Non-Cited Violation Nondestructive Examination(s) Nuclear Energy Institute Nuclear Procedure U.S. Nuclear Regulatory Commission Non-Safety-Related Out-of-Service Over-Pressure Delta Temperature Outage Safety Plan Over-Temperature Delta Temperature Primary Auxiliary Building Publicly Available Records System Periodic Check Performance Indicator Post-Maintenance Testing Power-Operated Relief Valve Pounds Per Square Inch Gauge Radiologically Controlled Area Root Cause Evaluation Reactor Coolant System Refueling Outage Regulatory Guide Residual Heat Removal Radiation Protection Reactor Protection System Self-Contained Breathing Apparatus Significance Determination Process Spent Fuel Pool Steam Generator Safety Injection Safety-Related Structure, System, And Component Service Water Seismic Walkdown Equipment List Turbine-Driven Auxiliary Feedwater Temporary Instruction Temporary Modification Technical Specification Unusual Event Unresolved Item Undervoltage
UV V	Undervoltage Volt
wcc	Work Control Center
WO	Work Order

L. Meyer

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Sincerely, /**RA**/

Michael A. Kunowski, Chief Branch 5 Division of Reactor Projects

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

- Enclosure: Inspection Report 05000266/2012005 and 05000301/2012005; w/Attachment: Supplemental Information
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Letter to L. Meyer from M. Kunowski dated November 7, 2013.

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2, NRC INTEGRATED INSPECTION REPORT 05000266/2012005 AND 05000301/2012005

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