



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

March 18, 2013

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

**SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT 2, POST-APPROVAL SITE INSPECTION  
FOR LICENSE RENEWAL INSPECTION REPORT 05000301/2013008**

Dear Mr. Meyer:

On February 7, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed a Post-Approval Site Inspection for License Renewal at your Point Beach Nuclear Plant, Unit 2. The enclosed report documents the results of this inspection, which were discussed on February 7, 2013, with you and other 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.

Based on the sample selected for review, no findings of significance were identified during this inspection. The team concluded the commitments were properly identified, implemented, and completed.

On the basis of the sample selected for review and in consultation with the Division of License Renewal in the Office of Nuclear Reactor Regulation, the NRC concludes the licensee has completed the necessary commitments for operation into the period of extended operation.

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 document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Ann Marie Stone, Chief  
Engineering Branch 2  
Division of Reactor Safety

Docket Nos. 50-301  
License Nos. DPR-27

Enclosure: Inspection Report 05000301/2013008  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ™

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 05000301  
License No: DPR-27

Report No: 05000301/2013008

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant, Unit 2

Location: Two Rivers, WI

Dates: January 22, 2013 – February 7, 2013

Inspectors: Stuart Sheldon, Senior Reactor Engineer (Lead)  
Tom Bilik, Senior Reactor Engineer  
Benny Jose, Senior Reactor Engineer

Approved by: Ann Marie Stone, Chief  
Engineering Branch 2  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

Inspection Report (IR) 05000301/2013008; 01/22/2013 – 02/07/2013; Point Beach Nuclear Plant, Unit 2; Post-Approval Site Inspection for License Renewal

The report covers a team inspection conducted by region-based engineering inspectors. The inspectors concluded that commitments, license conditions, and regulatory requirements associated with the issuance of the renewed operating license were being met. 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**

No violations of significance were identified.

**B. Licensee-Identified Violations**

No violations of significance were identified.

## REPORT DETAILS

### 4. OTHER ACTIVITIES

#### 4OA5 Other Activities

##### .1 Post-Approval Site Inspection for License Renewal (Phase II) – IP 71003

##### a. Inspection Scope

##### (1) Review of Newly Identified Structures, Systems, and Components (SSCs)

The inspectors discussed the identification of newly identified SSCs, under the purview of 10 CFR 54.37(b), with the licensee's license renewal staff. The licensee reported that no new identified SSCs had been identified since the last inspection documented in IR 05000301/2012008 (ML12355A774). The inspectors did not identify any deficiencies.

##### b. Review of FSAR and Commitment Change Process

As part of reviewing the Aging Management Programs (AMPs) associated with the commitments, the inspectors reviewed the FSAR descriptions to confirm the implemented programs were consistent with the FSAR descriptions.

The inspectors reviewed the licensee's procedures to ensure that commitment revisions would follow the guidance in NEI 99-04, "Guidelines for Managing NRC Commitment Changes," including the elimination of commitments, and would properly evaluate, approve, and report changes to license renewal commitments listed in the FSAR in accordance with 10 CFR 50.59. The inspectors reviewed each change associated with a commitment as noted in the next section. No disparities were identified with respect to implementation.

##### (1) Review of Commitments

The inspectors reviewed supporting documents including completed surveillance records, conducted interviews, and observed the activities described below to verify the licensee completed the necessary actions to comply with the license conditions that are a part of the renewed operating license. The inspectors verified the licensee implemented the Aging Management Programs and time-limited aging analyses (TLAA) included in NUREG-1839, "Safety Evaluation Report (SER) Related to the License Renewal of the Point Beach Nuclear Plant Units 1 and 2," (ML053420134) in accordance with Title 10 of the Code of Federal Regulations (CFR) Part 54, "Requirements for the Renewal of Operating Licenses for Nuclear Power Plants."

When changes to these commitments were identified, the inspectors reviewed the Commitment Change Evaluation (CCE) to verify the licensee followed the guidance in NEI 99-04 for the license renewal commitment change process, including the elimination of commitments, and properly evaluated, reported, and approved where necessary, changes to license renewal commitments listed in the FSAR in accordance with 10 CFR 50.59.

The inspectors reviewed portions of the commitment items listed below which are referenced to Appendix A of the SER. Commitment items 40, 41, 43, 44, 49, 54, and 61, were reported as complete in the SER and therefore, not reviewed. Specific documents reviewed are listed in the enclosure.

1. Commitment Item 1, License Renewal Flags

Commitment Item 1 specified the licensee would develop and implement an AMP that would apply license renewal flags to each component that will be maintained as part of the equipment information database in the Passport system prior to period of extended operation.

This Commitment Item was verified as complete during the inspection for Unit 1 as documented in IR 05000266/2010-011 (ML102850469).

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Item 1.

2. Commitment Item 2, RI-ISI Program Inspections of Piping Welds Less than 4-Inch Nominal Pipe Size

Commitment Item 2 specified the Risk-Informed Inservice Inspection (RI-ISI) Program inspections of piping welds less than 4-inch Nominal Pipe Size (NPS) will include volumetric examinations for non-socket welds and surface examinations for socket welds. The program requires volumetric examination of non-socket welds and surface examination of socket welds until a meaningful volumetric inspection technique is created for the geometry presented by socket welds, in a sample of susceptible risk significant small bore (< 4 inch) ASME Class 1 and 2 piping. All of the U2 small bore inspections were completed within the last interval. Furthermore, the small bore inspections completed during U2R31 were performed under work order (WO) 380584.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, non-destructive examination (NDE) records, and interviewed the plant personnel responsible for this program. The inspectors verified that the inspection requirements are incorporated in the ISI Program and station procedures.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 2.

3. Commitment Items 3, 32, 42, 57, and 69, Structures Monitoring Program

Commitment Item 3 specified all concrete/grout within the scope of license renewal will be managed for aging.

Commitment Item 32 specified the licensee implement an enhanced Structures Monitoring Program prior to the period of extended operation.

Commitment Item 42 specified the Structures Monitoring Program will be enhanced to conduct and document a structural condition survey of the reactor vessel sump area.

Commitment Item 57 specified enhancements will be made to the Structures Monitoring Program to include the primary shield and reactor vessel support areas.

Commitment Item 69 specified that the Structures Monitoring Program will examine below-grade concrete when it is exposed by excavation for signs of degradation from aggressive chemical attack or corrosion of embedded steel, during the period of extended operation. Periodic monitoring of ground water chemistry (pH, chlorides, sulfates) will continue to be performed during the period of extended operation to ensure the environment remains non-aggressive. The frequency of monitoring ground water chemistry (pH, chlorides, sulfates) will be at least once every 5 years.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, scheduled and completed work orders, and related condition reports (CRs); and interviewed the plant personnel responsible for this program. The inspectors verified that the program enhancement and program commitments specified in the SER were incorporated into implementing plant procedures.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 3, 32, 42, 57, and 69.

4. Commitment Item 4, Continued Monitoring and Participation in Industry Initiatives with Regard to Baffle/Former and Barrel/Former Bolt Performance

Commitment Item 4 specified the licensee will continue to monitor and participate in industry initiatives with regard to baffle/former and barrel/former bolt performance to support aging management for the Unit 1 bolting.

The inspectors determined Commitment Item 4 does not apply to Unit 2.

5. Commitment Item 5, Continued Participation in Industry Investigations of Aging Effects Applicable to Reactor Vessel Internals

Commitment Item 5 specified the licensee will continue to participate in industry investigations of aging effects applicable to reactor vessel internals. Aging effects on reactor vessel internals is being addressed via the NRC approved industry guidance document MRP-227-A (ML12017A193). Aging management activities or surveillance techniques resulting from these initiatives will be incorporated, as required, as enhancements to the Reactor Vessel Internals Program.

The inspectors reviewed the implementing documents, and interviewed the plant personnel responsible for this program. The inspectors verified that the licensee is continuing to participate in industry activities.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 5

6. Commitment Item 6, Void Swelling in the Reactor Internals Program

Commitment Item 6 specified the licensee will incorporate applicable results of industry initiatives related to void swelling in the Reactor Vessel Internals Program.

The licensee has incorporated applicable results of industry initiatives related to void swelling in the Reactor Vessel Internals Program. Void swelling is included in the NRC approved industry guidance document MRP-227-A (ML12017A193). The recommendations for void swelling from MRP-227-A (ML12017A193) have been incorporated in the site-specific document NP 7.7.30, "Reactor Vessel Internals Program" (which replaced AM 3-44). This program was submitted to the NRC for review via letter NRC 2011-0106 (ML113540301).

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 6.

7. Commitment Item 7, Leak Before Break

Commitment Item 7 specified the plant process control procedures (design control, repair/replacement, and welding) will be revised to ensure that repair or replacement of Class 1 piping components within the scope of Leak Before Break (LBB) analysis for welded connections or Cast Austenitic Stainless Steel (CASS) would require a new LBB analysis based on replacement process and/or material properties.

This Commitment Item was verified as complete during the inspection for Unit 1 as documented in IR 05000266/2010-011 (ML102850469).

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 7.

8. Commitment Item 8, Material Reliability Project (MRP) for Reactor Vessel Internals (RVI)

Commitment Item 8 had specified the licensee would implement the NRC-approved industry activities resulting from the MRP, as appropriate, to manage any applicable aging effects identified through the Electric Power Research Institute (EPRI) MRP effort.

It was identified during the Unit 1, 71003 Phase II inspection that the licensee had closed tracking on this commitment with their submission of a Reactor Vessel Internals Program for NRC review under Commitment Item 29. After discussion with the inspectors, the licensee submitted a letter, NRC 2010-0135, to clarify that this commitment had not been completed, but rather consolidating it with Commitment Item 29, and changing the due date to "within 180 days following approval of the program by the NRC."

The inspectors concluded the licensee initiated appropriate actions to address Commitment Item 8.

9. Commitment Item 9, Program Designated Bolting

Commitment Item 9 specified the Periodic Surveillance and Preventive Maintenance (PSPM) Program would be used to replace a program for managing the periodic replacement of Unit 1 steam generator inspection port bolts.

The inspectors determined Commitment Item 9 does not apply to Unit 2.

## 10. Commitment Items 10, 12, and 30, Reactor Vessel Surveillance Program

Commitment Item 10 specified the licensee would directly validate the integrity of the reactor pressure vessel (RPV) with the testing of the capsule installed on Unit 2 in 2002, at a time when neutron fluence level calculations require. The schedule for capsule removal is still included in Table 2 of TRM 2.2, along with the discussion in NP 7.7.14. BAW-1543(NP), Revision 4, Supplement 6-A, "Supplement to the Master Integrated Reactor Vessel Surveillance Program," still contains the most current NRC reviewed and approved capsule removal schedule. In December, 2011 Electric Power Research Institute (EPRI) issued MRP-326, "MRP Coordinated PWR Reactor Vessel Surveillance Program (CRVSP) Guidelines," where the industry recommended changes to the current surveillance capsule withdrawal schedule. Each pipe whip restraint (PWR) unit is specifically discussed, and there are no recommended changes to the withdrawal schedule for either Unit 1 or Unit 2. Commitment Item 10 is active and will be implemented by the Reactor Vessel Integrity Program.

Commitment Item 12 specified the licensee would revise the upper shelf energy evaluation prior to the period of extended operation. The upper shelf energy evaluation was revised and is documented in BAW-2467P, Revision 1, "Low Upper-Shelf Toughness Fracture Mechanics Analysis of Reactor Vessel of Point Beach Units 1 and 2 or Extended Life through 53 Effective Full Power Years." This analysis was submitted to the NRC for review and approval in letter NRC 2006-0054 (ML061910335). The NRC review and approval is documented in NRC letter dated May 10, 2007 (ML071300623).

Commitment Item 30 specified the licensee would implement an enhanced Reactor Vessel Surveillance Program prior to period of extended operation. This commitment was met by developing the Reactor Vessel Surveillance Program which is consistent with, but includes exceptions to, NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," Section XI.M31, "Reactor Vessel Surveillance." NP 7.7.14, "Reactor Vessel Integrity Program" implements the program at the procedural level.

The inspectors interviewed licensee personnel and reviewed the licensing basis, program basis document, planned and completed work orders, corrective action program documents, industry group documentation, and implementing procedures. The inspectors verified that the program and program enhancements required for license renewal commitments were in place for Unit 2. The inspectors verified that implementing procedures and program documents directed that the RPV integrity would be directly validated and all reactor vessel surveillance capsules will be removed in accordance with the most recently NRC-approved Pressurized Water Reactor Owners Group (PWROG) Master Integrated Reactor Vessel Surveillance Program (MIRVP) documents during the period of extended operation. The inspectors verified that the licensee revised the upper shelf energy evaluation prior to the period of extended operation.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 10, 12, and 30 for Unit 2.



11. Commitment Item 11, Reactor Vessel Surveillance Program.

Commitment Item 11 specified the licensee would remove Capsule A2 (Unit 1) at a target end of extended life fluence of  $3.7 \times 10^{19}$  n/cm<sup>2</sup>.

The inspectors determined Commitment Item 11 does not apply to Unit 2.

12. Commitment Item 13, ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program

Commitment Item 13 specified the licensee would implement an enhanced ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program prior to the period of extended operation.

This commitment was met by developing the ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program based on Sections XI.M.1, "ASME Section XI, Subsections IWB, IWC and IWD," and XI.M3, "Reactor Head Closure Studs" of NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," dated April 2001.

Enhancements to the ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program included revisions to existing activities credited for license renewal to ensure inspections for the applicable aging effects are performed and any noted indications are appropriately evaluated. Additionally, applicable process control documents were to be revised to ensure new LBB analyses are performed following use of the Section XI flaw evaluation option or repair/replacement of Class 1 welds and CASS within the scope of the LBB analysis.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, non-destructive examination records, and related condition reports; and interviewed the plant personnel responsible for this program. The inspectors verified the program and enhancements were in place involving revisions to existing activities credited for license renewal, to ensure inspections for the applicable aging effects are performed and any noted indications are appropriately evaluated.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 13.

13. Commitment Item 14, ASME Section XI, Subsections IWE and IWL Inservice Inspection Program

Commitment Item 14 specified the existing ASME Section XI, Subsections IWE and IWL Inservice Inspection Program would be enhanced prior to the period of extended operation, which included modifications to procedures for air lock door inspections.

The inspectors reviewed the program basis documents, implementing procedures, examination records, and interviewed the plant personnel responsible for this program. The inspectors verified the program enhancements were in place.

As stated in IR 05000266/2010-011 (ML102850469), the inspectors had previously reviewed documentation related to cancellation of the pre-stressed concrete containment tendon Aging Management Program for license renewal, LR-AMP-031-TENDON.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 14.

14. Commitment Item 15, ASME Section XI, Subsections IWF Inservice Inspection Program

Commitment Item 15 specified the licensee would implement an enhanced ASME Section XI, Subsection IWF Inservice Inspection Program. Enhancements to the ASME Section XI, Subsection IWF Inservice Inspection Program included revising existing implementing documents to include as recordable conditions inspection information for cracking due to stress corrosion cracking in high-strength, low-alloy steel bolts and for visual inspections of IWF supports including the baseplates and the attachment of the baseplates to the structure for component supports.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, examination records, and related Action Requests (ARs); and interviewed the plant personnel responsible for this program. The inspectors verified the program and program enhancements were in place.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 15.

15. Commitment Items 16, 60, Bolting Integrity Program

Commitment Item 16 specified the licensee will implement an enhanced bolting integrity program prior to the period of extended operation. Commitment Item 60 specified four specific Bolting Integrity Program enhancements.

The Bolting Integrity Program credits seven separate AMPs for license renewal. The seven AMPs are: (1) ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program; (2) ASME Section XI, Subsections IWE and IWL Inservice Inspection Program; (3) ASME Section XI, Subsection IWF Inservice Inspection Program; (4) Systems Monitoring Program, (5) Structures Monitoring Program, (6) Reactor Vessel Internals Program; and (7) Periodic Surveillance and Preventive Maintenance Program.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, scheduled and completed work orders, completed receipt inspections, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified that the program enhancement and specific program commitments were incorporated into implementing plant procedures.

Based on review of the timeliness and adequacy of the licensee's actions the inspectors determined the licensee met Commitment Items 16 and 60.



16. Commitment Items 17 and 65, Boraflex Monitoring Program

Commitment Item 17 specified the licensee will implement an enhanced Boraflex Monitoring Program prior to the period of extended operation. Commitment Item 65 specified five specific Boraflex Monitoring Program enhancements.

Through License Amendment Request Number 247, initiated July 24, 2008, the licensee implemented a Commitment Item change to reflect that Boraflex was no longer credited for spent fuel pool storage criticality control.

On March 5, 2010, the NRC issued Point Beach Nuclear Plant Amendment No. 240 (ML100400106) to DPR-27 (Unit 2) that reflected Boraflex was no longer credited for spent fuel pool storage criticality control.

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee discontinued Commitment Items 17 and 65.

17. Commitment Item 18, Boric Acid Corrosion Program

Commitment Item 18 specified the licensee would implement an enhanced Boric Acid Corrosion Program prior to the period of extended operation. This commitment continues to be implemented via LR-AMP-005-BAC, Boric Acid Corrosion Program Basis Document for License Renewal and its implementing documents.

The inspectors reviewed the licensing basis, implementing procedures, work orders, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified the program and program enhancements for inspecting components upon which boric acid may have leaked were in place.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 18.

18. Commitment Items 19 and 58, Buried Services Monitoring Program

Commitment Item 19 specified the licensee would develop and implement a Buried Services Monitoring Program prior to the period of extended operation. Commitment Item 58 specified a susceptible location in the fire protection system (i.e., uncoated or unwrapped piping) will be scheduled to be inspected once prior to the period of extended operation and at least every 10 years during the period of extended operation. Based upon findings from these fire protection system inspections, additional inspection locations could include coated and/or uncoated buried piping in the fire protection system, service water system and fuel oil system.

The licensee implemented a commitment change to Commitment Item 58 to reflect that a susceptible location in the fire protection system (i.e., coated or uncoated/unwrapped piping) will be scheduled to be inspected once prior to the period of extended operation and at least every 10 years during the period of extended operation. Based upon findings from these fire protection system inspections, additional inspection locations could include coated and/or uncoated buried piping in the fire protection system, service water system and fuel oil system. The reason to include coated piping in the population of susceptible piping to be inspected prior to the period of extended operation is to include the piping installed during original construction. The only uncoated piping was installed within the past

ten years. Therefore, the uncoated piping has only a limited time in the ground and therefore would not be expected to exhibit any aging of note.

The inspectors reviewed the licensing basis, program basis document, commitment change evaluation, implementing procedures, and completed work orders; and interviewed the plant personnel responsible for this program. The inspectors verified that the program and the additional program commitment were incorporated into implementing plant procedures.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 19 and 58.

19. Commitment Items 20 and 55, Cable Condition Monitoring Program

Commitment Item 20 specified the licensee would provide a new Cable Condition Monitoring Program in accordance with NUREG-1801, Section XI.E1, "Electrical Cables And Connections Not Subject To 10 CFR 50.49 Environmental Qualification (EQ) Requirements," and accordance with, but includes exceptions to, Sections XI.E2, "Electrical Cables Not Subject To 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits," and XI.E3, "Inaccessible Medium-Voltage Cables Not Subject To 10 CFR 50.49 Environmental Qualification Requirements."

Commitment Item 55 specified a representative sample of in-scope, inaccessible non-EQ medium-voltage cables not designed for submergence subject to significant moisture and significant voltage will be tested prior to the end of the current license period and once every ten years during the period of extended license as part of the Cable Condition Monitoring Program.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, inspection results, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified the visual inspections of a representative sample of accessible electrical cables and connections in adverse localized environments, testing of nuclear instrumentation circuits and testing of a representative sample of in-scope, medium-voltage cables not designed for submergence had been completed and scheduled in the Periodic Maintenance Program.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Items 20 and 55.

20. Commitment Item 21, Closed-Cycle Cooling Water System Surveillance Program

Commitment Item 21 specified the licensee would implement an enhanced Closed-Cycle Cooling Water System Surveillance Program prior to period of extended operation.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, water chemistry controls, and related Corrective Action Program documents; and interviewed the plant personnel responsible for this program. The inspectors verified the program and program enhancements were in place for: (1) maintenance of system corrosion inhibitor concentrations to minimize degradation; (2) periodic or one-time surveillance testing and inspections to evaluate system and

component performance; and (3) inspection methods include visual testing, ultrasonic testing, and eddy current testing.

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Item 21.

#### 21. Commitment Item 22, Fire Protection

Commitment Item 22 specified the licensee would implement an enhanced Fire Protection prior to the period of extended operation. Enhancements to the Fire Protection Program included revisions to various implementing documents to add specific inspections, and monitoring and trending requirements. The inspectors verified that new implementing documents were established to implement inspections of selected components and of the fire suppression piping.

The inspectors reviewed the licensing basis, program basis document, implementing procedures and related CRs. The inspectors verified the above enhancements were incorporated into the existing program documents and implementing procedures. The inspectors specifically verified procedures LR-AMP-010-FP and OPT-FP-004 contained the appropriate procedural steps needed to implement the enhancements of the program.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Item 22.

#### 22. Commitment Items 23, and 63, Flow Accelerated Corrosion

Commitment Item 23 specified the licensee would implement an enhanced Flow-Accelerated Corrosion (FAC) Program prior to the period of extended operation. Enhancements included revisions to plant procedures and the addition of specific components to the scope of the program, ensure congruence with the guidelines of NSAC-202L-R3, and provide better references to the input data sets. Enhancements also included clarification of the program requirements for steam generator (SG) nozzles and reducers, and more stringent controls placed on program basis documents and software.

The program implements the EPRI guidelines in NSAC-202L-R3 for an effective FAC Program and includes: (a) an analysis using a predictive code such as CHECWORKS™ to determine critical locations; (b) baseline inspections to determine the extent of thinning at these locations; (c) follow-up inspections to confirm the predictions; and (d) repairing or replacing components, as necessary.

Commitment Item 63 specified the licensee would perform additional examinations in adjacent areas to bound the thinning if degradation is detected by the FAC Program such that wall thickness is less than or equal to 87.5 percent of nominal wall thickness for safety related piping. For both safety-related and non-safety-related piping, additional examinations will be performed in adjacent areas to bound the thinning if the remaining service life, based on the code minimum allowable wall thickness, is less than one operating cycle. The sample size will also be expanded for non-safety-related piping if degradation is detected such that the wall thickness is less than or equal to 60 percent of nominal wall thickness. Specifically, this covers situations where the Code minimum allowable wall thickness may be less than 60 percent of nominal wall thickness for non-safety-related piping.

This commitment is captured in LR-AMP-009-FAC, and implemented via SEM 7.8.3. The FAC Summary Report from the last Unit 2 outage (U2R31) did not reveal any of the conditions listed above having occurred in the FAC inspections during the outage.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, and related ARs; and interviewed the plant personnel responsible for this program. The inspectors verified that this requirement had been incorporated into the FAC Program.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, and related ARs; and interviewed the plant personnel responsible for this program. The inspectors verified that the program and program enhancements were in place.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 23, and 63.

#### 23. Commitment Item 24, Fuel Oil Chemistry Control Program

Commitment Item 24 specified the licensee would implement an enhanced Fuel Oil Chemistry Control Program prior to the period of extended operation.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, chemistry results, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified the program and program enhancements for draining water from diesel fuel tanks and periodically taking ultrasonic measurements of day tanks were in place. Additionally, the licensee implemented a commitment change to replace stability testing with particulate testing for microbiological activity.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 24.

#### 24. Commitment Items 25, 45, and 59, One-Time Inspection Program

Commitment Item 25 specified the licensee would develop and implement a One-Time Inspection Program prior to the period of extended operation. Commitment 45 specified the licensee would incorporate one-time visual inspection and hardness measurements for selective leaching prior to the period of extended operation. Commitment 58 specified the licensee would conduct eddy current inspections under the One-Time Inspection Program of the tubing of one Residual Heat Removal (RHR) heat exchanger prior to the period of extended operation. The One-Time Inspection Program provides for examinations of representative materials in environments that are not expected to experience aging effects in order to verify this assumption.

The inspectors reviewed the licensing basis, program basis document, sampling methodology, completed work orders, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified the selective leaching inspections and eddy current testing of the 2A RHR heat exchanger had been incorporated in the program and completed.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 25, 45 and 59.

25. Commitment Item 26, Open-Cycle Cooling Water System Surveillance Program

Commitment Item 26 specified the licensee would implement an enhanced Open-Cycle Cooling Water System Surveillance Program prior to period of extended operation.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, water chemistry and bio-fouling controls related CRs; and interviewed the plant personnel responsible for this program. The inspectors reviewed the regular maintenance activities that had been approved as an alternative to periodic heat transfer verification testing for each of the heat exchangers identified in the exception. The inspectors verified the program and program enhancements were in place to ensure: (1) surveillance and control of biofouling; (2) periodic and one-time surveillance testing and inspections to evaluate system and component performance; (3) inspection methods include heat transfer testing, visual testing, ultrasonic testing, and eddy current testing; and (4) routine inspection and Maintenance Program activities to ensure that aging effects do not impair component's intended function. The inspectors verified the testing and maintenance activities appropriately implemented the actions.

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Item 26.

26. Commitment Items 27, 56 and 64 Periodic Surveillance and Preventive Maintenance Program

Commitment Item 27 specified the licensee would implement an enhanced Periodic Surveillance and Preventive Maintenance (PSPM) Program prior to the period of extended operation. Commitment Item 56 specified the licensee periodically conduct visual inspections of the bus ducts to inspect for signs of insulation cracking, corrosion, debris, excessive dust buildup, evidence of moisture and water intrusion, or discoloration of insulation as part of the PSPM Program. Commitment Item 64 specified the licensee will retain records of deferrals, cancellations, and frequency changes for call-ups credited for license renewal as aging management or replacement activities in an auditable and retrievable form.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, a sample of various periodic maintenance requests, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified the program and program enhancements to incorporate inspections required for license renewal commitments were in place. The inspectors verified the bus duct inspections had been performed and periodic tasks were in place for future inspections. The licensee also demonstrated that an electronic report was in place to provide documentation of deferrals, cancellations, and frequency changes for call-ups credited for license renewal.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 27, 56 and 64.



27. Items 28, 52, and 53, Reactor Coolant System Alloy 600 Inspection Program

Commitment Item 28 specified the licensee would develop and implement a Reactor Coolant System Alloy 600 Inspection Program prior to the period of extended operation.

This commitment was met by developing the Reactor Coolant System Alloy 600 Inspection Program based on Section XI.M11, "Nickel-Alloy Nozzles and Penetrations" of NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," dated April 2001. Implementation was completed by the issuance of AM-3-31, Alloy 600 Management Program approved by the NRC Safety Evaluation Report.

This commitment continues to be implemented via LR-AMP-013-RCA600, Reactor Coolant System Alloy 600 Inspection Program Basis Document for License Renewal and its implementing documents.

ASME Code Case N-770-1 provides inspection and management guidance for Alloy 82/182 dissimilar metal (DM) butt welds. Code Case N-770-1 was incorporated into 10 CFR 50.55a on June 21, 2011. The NRC regulations require Alloy 82/182 welds with Alloy 52 inlays or onlays to be examined in accordance with Code Case N-770-1, regardless of when the Alloy 52 inlay or onlay was applied. The NRC will not exempt these welds from the requirements of Code Case N-770-1. However, the examinations of the Unit 2 Steam Generator Nozzle DM Butt Welds were completed in November 2012 during outage U2R32 using ultrasonic testing (UT) and eddy current testing (ET). No recordable indications were noted for any of the DM welds. As a result, the licensee planned to request that these welds be re-categorized as mitigated.

Commitment Item 52 states the licensee will use the interim report "PWR Materials Reliability Project Interim Alloy 600 Safety Assessment for US PWR Plants (MRP-44), Part 1: Alloy 82/182 Pipe Butt Welds," and its final version as part of the basis for the Reactor Coolant System Alloy 600 Inspection Program.

The licensee used the interim report "PWR Materials Reliability Interim Alloy 600 Safety Assessment of US PWR Plants (MRP-44) Part 1: Alloy 82/182 Pipe Butt Welds," and its final version as part of the basis for the Reactor Coolant System Alloy 600 Inspection Program. This was documented in the revised application for NRC review and approval of the Alloy 600 Management Program NRC RCA600 AMP, based on MRP-126, (the final version of EPRI MRP-44) which was submitted to the NRC in October of 2008 (ML082810445). The NRC approved the AMP in a safety evaluation in October of 2009 (ML092710593). LR-AMP-016-RCA600 reflects this conclusion.

Commitment Item 53 states the licensee will submit the Reactor Coolant System Alloy 600 Inspection Program 24 – 36 months prior to the period of extended operation for staff review and approval to determine if the program demonstrates the ability to manage the effects of aging per 10 CFR 54.21 (a)(3).

The inspectors reviewed the licensing basis, program basis document, implementing procedures, and interviewed the plant personnel responsible for this program. The inspectors verified the submitted program met the requirements in these commitments.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 28, 52 and 53.

28. Commitment Item 29, Reactor Vessel Internals Program

Commitment Item 29 originally specified the licensee would implement an enhanced Reactor Vessel Internals (RVI) Program “prior to the period of extended operation.”

By letter to the NRC dated April 23, 2010, (ML101160025), NextEra Energy Point Beach, LLC, (NextEra) submitted a revision to Regulatory Commitment Item 29 to modify the submittal date to be within 180 days following Commission approval of MRP-227.

Since completion of the Unit 1, Phase II Inspection, the industry RVI guidance was reviewed, and the NRC issued the safety evaluation for MRP-227, "Pressurized Water Reactor Internals Inspection and Evaluation Guidelines," on June 22, 2011.

Comments within the SER were incorporated by the industry, with the final approved document being MRP-227-A (ML12017A193) Revision 1. Based on this approved guidance, the licensee enhanced the RVI Inspection Program, NP 7.7.30, (formerly AM 3-44). The Program was then submitted to the NRC on December 19, 2011, via PBNP Letter NRC 2011-0106 (ML113540301) which included NP 7.7.30 Revision 1 as an enclosure. The submittal met the requirements and due date of Commitment Item 29.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, and interviewed the plant personnel responsible for this program.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 29.

29. Commitment Items 31, 50, and 68, Steam Generator Integrity Program

Commitment Item 31 specified the licensee will implement an enhanced Steam Generator Integrity Program prior to the period of extended operation. This commitment continues to be implemented via LR-AMP-003-SGINT, Steam Generator Integrity Program Basis Document for License Renewal and its implementing documents.

Commitment Item 50 specified the licensee will perform visual inspections of accessible areas to verify the integrity of steam generator secondary-side components at least every six years, with one steam generator being inspected every three years on an alternating basis. Any indications of degradation or unacceptable conditions will be evaluated through the Corrective Action Program, including the extent of condition.

It should be noted this Commitment Item was revised via CCE 2007-002 to change the secondary-side inspection frequency to every six Effective Full Power Years to coordinate with primary side inspection times (i.e., alternating three year inspection requirement has been deleted).

Commitment Item 68 specified the licensee will age-manage the SG feed-rings, J-nozzles, and feed-ring supports using the Water Chemistry Control Program and the SG Integrity Program.

The inspectors reviewed the licensing basis, program basis document, commitment change evaluations, implementing procedures, scheduled and completed work orders, and interviewed the plant personnel responsible for this program. The inspectors verified the program enhancement and program commitments were incorporated into implementing plant procedures.

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Items 31, 50 and 68.

### 30. Commitment Items 33 and 62, System Monitoring Program

Commitment Item 33 specified the licensee would implement an enhanced Systems Monitoring Program prior to the period of extended operation. Commitment Item 62 specified that all systems within the scope of license renewal containing components requiring an aging management review and that credit the Systems Monitoring Program for managing the effects of aging on the external surfaces of the components will be walked down at a minimum frequency of once per operating cycle, within the limits of accessibility. It also specified specific enhancements for supervisory review and evaluation.

The inspectors reviewed the licensing basis, the System Monitoring Program basis documentation, implementing procedures, planned and completed work orders, related corrective action documents, and interviewed the plant personnel responsible for this program. The inspectors verified that the licensee conducted periodic inspections of the fire protection system and the service water system, and that the licensee had enhanced the program as specified in the SER. The inspectors verified the program specified supervisors of each system to perform a review and document the results to ensure that the accessible portions of each system are walked down at a minimum frequency of once per operating cycle.

The inspectors verified the licensee evaluated inaccessible areas of various systems to ensure that walked down contain the same material(s) and the same or more severe environment(s) as those portions that are considered inaccessible.

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Items 33 and 62.

### 31. Commitment Item 34, Tank Internal Inspection Program

Commitment Item 34 specified the licensee would develop and implement a Tank Internal Inspection Program prior to the period of extended operation.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, inspection results, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified that the program and program enhancements for increased sampling to verify corrective actions were in place.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 34.

### 32. Commitment Item 35. Thimble Tube Inspection

Commitment Item 35 specified the licensee would implement an enhanced Thimble Tube Inspection Program prior to the period of extended operation. Enhancements to the Thimble Tube Inspection Program include correcting program deficiencies concerning inspection deferrals, calculation methodology, and document retention. This program requires periodic eddy current testing of thimble tubes and contains criteria for determining sample size, inspection frequency, flaw evaluation, and corrective action, in accordance with NRC Bulletin 88-09.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, and completed inspections; and interviewed the plant personnel responsible for this program. The inspectors verified that program and associated enhancements were in place.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 35.

### 33. Commitment Item 36. Water Chemistry Control Program

Commitment Item 36 specified the licensee would implement an enhanced Water Chemistry Control Program prior to the period of extended operation.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, chemistry results, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified that program enhancements for increased sampling to verify corrective actions were in place. Additionally, the licensee implemented a commitment change to incorporate requirements from the latest EPRI TR 1014986, "PWR Primary Water Chemistry Guidelines," Revision 6, and EPRI TR 1016555, "PWR Secondary Water Chemistry Guidelines," Revision 7.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 36.

### 34. Commitment Item 37. Environmental Qualifications

Commitment Item 37 specified the licensee would implement an enhanced Environmental Qualifications (EQ) Program prior to the period of extended operation. The enhancements to the EQ Program included new procedures, operating experience, and reorganization of activities.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, assessments, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors also reviewed the self-assessment report and the corrective actions resulting from the assessment. The inspectors verified the program implementing documents contained the appropriate License Renewal references. The inspectors verified the licensee conducted an assessment of all EQ components which include field verification and completion of EQ checklists reviews, which evaluates operating experience.

Based on the review of the timeliness and adequacy of the licensee's actions and assessment for the program, the inspectors determined the licensee met Commitment Item 37.

35. Commitment Item 38, Fatigue Monitoring Program

Commitment Item 38 specified the licensee was required to implement an enhanced Fatigue Monitoring Program prior to the period of extended operation. This commitment continues to be implemented via LR-AMP-025-FATMON, Fatigue Monitoring Program Basis Document for License Renewal and its implementing documents.

The inspectors reviewed the licensing basis, the program basis document, implementing procedures, program health report, and related CRs; and interviewed the plant personnel responsible for this program. The inspectors verified the program enhancements were incorporated into the implementing plant procedure.

Based on review of the timeliness and adequacy of the licensee's actions, the inspectors determined the licensee met Commitment Item 38.

36. Commitment Item 39, Submit a Reactor Vessel Internals Program

Commitment Item 39 stated a reactor vessel internals program would be submitted to the NRC for review and two years prior to entering into the period of extended operation. A commitment change per Letter NRC 2008-0067 (ML082480192) dated August 29, 2008, changed the date to one year prior to commencement of renewed operation as the industry reviews of EPRI MRP topical report had not been completed.

This commitment was originally completed with the submittal of under letter NRC 2009-0095 dated October 2, 2009. However, this submittal was not reviewed since the industry was continuing to define/refine the requirements of a Reactor Vessel Internals Aging Management Program. The NRC issued Regulatory Issue Summary (RIS) 2011-07, "License Renewal Submittal Information for Pressurized Water Reactor Internals Aging Management," on July 21, 2011, which provided revised guidance to holders of renewed licenses with regard to the submittal of their RVI AMP. The units were considered Category A plants per RIS 2011-07, as the licensee had previously submitted its RVI AMP. After the NRC endorsed MRP 227, the final requirements as listed in MRP 227-A were incorporated into site document NP 7.7.30 (which was re-numbered from AM 3-44), and this was then submitted to the NRC under letter NRC 2011-0106 (ML113540301), meeting the RIS guidance of re-submitting prior to October 1, 2012. This commitment is considered complete with the re-submittal of their RVI Program to the NRC under letter 2011-0106 (ML113540301).

The inspectors reviewed program basis document, implementing procedures, the referenced letters, and interviewed the plant personnel responsible for this program.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 39.

### 37. Commitment Items 46, 47, and 48 Pressurized Thermal Shock (PTS) Resolution

Commitment Item 46 states the licensee will continue to implement the low-low leakage loading fuel management pattern to minimize the limiting weld fluence. In addition, the licensee will continue operation with hafnium absorber assemblies in service until the resolution of the Unit 2 intermediate to lower shell girth weld PTS issue via an alternative analysis methodology. Commitment Item 47 states the documentation of a Flux Reduction Program and other options as necessary, allowed by 10 CFR 50.61(b) for the Unit 2 Reactor Pressure Vessel intermediate-to-lower shell girth weld, will be completed within one year of receipt of the extended license. Documentation within this timeframe will support submittal of any required safety analysis at least three years prior to the timeframe that RT PTS for Unit 2 is projected to exceed the screening criteria.

Commitment Item 48 states if acceptable PTS results cannot be provided prior to end-of-life (EOL) with alternate analysis techniques, the Flux Reduction Program will evaluate the feasibility and practicality of pursuing additional aggressive flux reduction measures prior to EOL such as the insertion of part length shielded fuel assemblies.

The inspectors reviewed implementing procedures, and interviewed the plant personnel responsible for this program. The inspectors reviewed Unit 2 cycles 32 and 33 final core loading patterns to verify the licensee was implementing a low-low leakage loading fuel management pattern and using hafnium absorber assemblies. These requirements are captured in Procedures FP-NF-NAD-01, "Nuclear Fuel Management Process for Point Beach," and NP 7.7.14, "Reactor Vessel Integrity Program." The inspectors also verified the flux reduction program for the Unit 2 Reactor Pressure Vessel intermediate-to-lower shell girth weld was documented in Procedure NP 7.7.14. The licensee has achieved acceptable PTS results with alternate analysis techniques (per Framatome ANP Topical Report BAW-2308, Revision 1-A and 2-A) and has submitted the alternate analysis for NRC approval in License Amendment Request 252.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Items 46, 47 and 48.

### 38. Commitment Item 51, Monitoring Industry Activities for Small-Bore Piping

Commitment Item 51 specified the licensee would monitor on-going industry activities related to failure mechanisms for small-bore piping, and will evaluate changes to the licensee's inspection activities based on industry recommendations. This Commitment Item continues to be implemented using implementing documents ISI CL 1, 2, 3 Program and NP 7.4.13. The ISI Program Coordinator is required by NP 7.4.13 to monitor on-going industry activities related to small-bore piping. This is done primarily through licensee personnel memberships in various industry working groups and code committees, where relevant information with regard to new inspection techniques is then communicated to the ISI Program Coordinator.

Currently, there is no Code-approved method for performing volumetric inspections of socket welds. The industry continues to work on this technique, as evidenced by the EPRI Success Story, 1023447, however, this is not approved for use on ASME code piping, and therefore is not being used at the site (AR 1718463-02, Technical Position on Socket UT).

The inspectors reviewed the program basis documents, implementing procedures and related documents; and interviewed the plant personnel responsible for this program to verify this information.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 51.

39. Commitment Item 66, Code Case N-616

The original Commitment Item 66 specified that as a part of the ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program, the requirements of Code Case N-616 will be supplemented by a VT-2 visual examination performed each outage for Class 1 systems and each inspection period for Class 2 and 3 systems with the insulation removed from the bolted connections. The connections are not pressurized during these examinations.

This Commitment Item was cancelled because a decision was made not to use Code Case N-616, as it was not useful for detecting aging mechanisms in bolted connections. The cancellation was documented in a letter to the NRC (NRC 2001-0059; 10 CFR 50.59 Summary Report for 2010) dated July 1, 2011, (ML111822833).

40. Commitment Item 67, Cast Austenitic Stainless Steel (CASS) Primary Loop Elbows

Commitment Item 67 states the licensee will use enhanced volumetric examination to detect and size cracks, or a plant, or component-specific flaw tolerance evaluation to demonstrate that CASS primary loop elbows potentially susceptible to thermal embrittlement have adequate fracture toughness.

The inspectors reviewed documentation, including the flaw tolerance evaluation, and interviewed the plant personnel responsible for this program.

The reactor coolant loop A374 TP316 piping material is not CASS material; and therefore, not susceptible to thermal aging, but some of the A351 CF8M piping elbow material is susceptible due to the  $\delta$ -ferrite content level. An evaluation was performed which demonstrated that even with thermal aging in the susceptible reactor coolant loop CASS piping material for Point Beach Units 1 and 2, the susceptible piping locations have been shown to be tolerant of large flaws. The evaluation is documented in Westinghouse LTR-PAFM-05-058, "Flaw Tolerance Evaluation for Susceptible CASS Reactor Coolant Piping Components in Point Beach Units 1 and 2."

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 67.

41. Commitment Item 70, Program Revisions for Selective Leaching

Commitment Item 70 specified the following aging management programs will be revised to credit the One-Time Inspection Program to identify selective leaching of susceptible components:

- Open-Cycle Cooling (Service) Water System Surveillance Program;
- Fire Protection Program;
- Systems Monitoring Program;
- Periodic Surveillance and Preventive Maintenance Program; and
- Structures Monitoring Program.

This Commitment Item was verified as complete during the inspection for Unit 1 as documented in IR 05000266/2010-011 (ML102850469).

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 70.

42. Commitment Item 71, Evaluation, Repair or Replacement of ASME Section XI, Subsections IWE and IWL

Commitment Item 71 specified an evaluation, repair, or replacement requirement discussion will be included in the Acceptance Criteria element of the ASME Section XI, Subsections IWE and IWL Inservice Inspection Program of the LRA prior to the period of extended operation. If localized area thickness of the containment liner base metal is reduced by 50 percent or more of the nominal plate thickness, then every attempt should be made to correct by repair or replacement. If the repair or replacement option is impractical, an acceptance by engineering evaluation option may be pursued.

This commitment is described in LR-AMP-028-IWEL, and is implemented via ISI IWE Program, 2<sup>nd</sup> Interval, "IWE Containment Inspection Program Second Interval." The Unit 2 outage inspection during 2011 (U2R31) did not reveal any instances of metal reduction meeting this criteria.

The inspectors reviewed the program basis document, implementing procedures, and interviewed the plant personnel responsible for this program. The inspectors verified that this requirement has been incorporated in the program.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 71.

43. Commitment Item 72, Localized Area Thickness Reductions of 50 Percent or Greater

Commitment Item 72 specified that if localized area thickness of the base metal is reduced by approximately 50 percent or more of the nominal plate thickness, then the re-examinations required by IWE 2420(b) will be continued in the succeeding inspection periods and the provisions of IWE-2420(c) will not be applied.



IWE-2420 (c) states that when the reexaminations required by IWE-2420(b) reveal that the flaws or areas of degradation or areas subjected to a repair replacement activity, remain essentially unchanged for three consecutive inspection periods, these areas no longer require augmented examination.

This commitment is described in LR-AMP-028-IWEL, and is implemented via ISI IWE Program 2<sup>nd</sup> Interval "IWE Containment Inspection Program Second Interval." The Unit 2 outage inspection during 2011 (U2R31) did not reveal any instances of metal reduction meeting this criteria.

The inspectors reviewed the program basis document, implementing procedures, examination records and interviewed the plant personnel responsible for this program. The inspectors verified that this requirement has been incorporated in the program.

Based on review of the timeliness and adequacy of the licensee actions, the inspectors determined the licensee met Commitment Item 72.

b. Findings and Observations

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On February 7, 2013, the inspectors presented the inspection results to the Site Vice-President, 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

L. Meyer, Site Vice-President  
R. Wright, Plant General Manager  
B. Woyak, Program Engineering Manager  
M. Millen, Licensing Manager  
S. Forsha, Program Engineer  
H. Hanneman, Licensing Supervisor  
E. Schmidt, Engineering Supervisor  
T. Mielke, License Renewal Coordinator  
R. Bardo, Program Engineer  
R. Brittingham, Site PM Coordinator  
R. Clark, Licensing  
J. Fischer, Programs Engineer  
S. Forsha, Program Engineer  
J. Loor, Design Engineer  
T. Petermann, Systems Engineer  
R. Richards, Chemistry  
B. Scherwinski, Licensing  
J. Schroeder, Systems Engineer  
L. Teske, Systems Engineer  
A. Watry, Program Engineer

### **LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

#### Opened, Closed, and Discussed

None

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors 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.

### 40A5 Other Activities

Application for Renewed Operating Licenses, Point Beach Nuclear Plant Units 1 and 2  
AR 01736210; License Renewal Aging Management Program Updates; 02/20/12  
NP 7.7.25; PBNP (Point Beach Nuclear Plant) Renewed License; Revision 7  
PBSA-ENG-12-13; U2 License Renewal Phase II Self-Assessment; 10/31/12

### Commitment Item 1

AR 00895971; Place License Renewal Flags in Equipment database; 10/19/2005  
AR01176301; Update Passport License Renewal Attribute for New ID's; 06/30/2010  
EC 0000014389; Equipment Database Bulk Update; 02/02/2010  
FP-E-RTC-02; Equipment Classification –Q List; Revision 4  
FP-PE-RLP-01; Renewed Licensed Program; Revision 3  
ITAR 01176301-03 and ITAR 01154512-04; Passport Test Plan for Bulk Update of Panel X270; 07/08/2010

### Commitment Item 2

LR-AMP-017-IWBCD; ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program Basis Document for License Renewal; Revision 8  
NDE-173; PDI Generic Procedure for the Ultrasonic Examination of Austenitic Piping Welds; Revision 12  
ISI CL 1, 2, 3 Program; PBNP Class 1, 2, and 3 Inservice Inspection Program; Revision 12  
2ISI CL 1, 2, 3 Schedule; PBNP Class 1, 2, and 3 Inservice Inspection Program Schedule; Revision 4  
WO 0380584; 2RC, ISI/NDE of Components in Pressurizer Cubicle; March 7, 2011

### Commitment Items 3, 32, 42, 57, and 69

AR01721212; WR Cancelled to Repair Discharge Flume; 01/04/12  
AR 01718980; 1<sup>st</sup> Pipe Support After P-035B Degraded; 12/23/2011  
AR 01810878; Tendon Galleries Groundwater Intrusion; 10/08/2012  
PMCR 01749571; Unit 1 and 2 Discharge Flume PM; March 28, 2012  
CAMP 920; Ground Water Protection Sampling; Revision 3  
FP-IH-EXC-01; Excavation & Trenching Controls; Revision 5

LR-AMP-022-STRMON; Structures Monitoring Program Basis Document for License Renewal; Revision 6

NP 7.7.9; Facilities Monitoring Program; Revision 5

NPM 2009-0027; 2008 Facilities Monitoring Annual Report; dated January 29, 2009

PBF-3231; Ground Water Monitoring Well Samples; Revision 0

PMRQ 14565-35; Lake Michigan Water Analysis; due date July 21, 2012

PMRQ 18233-01; Façade Ground Water Monitoring Well Chemical Analyses; due date November 1, 2010

QF-1306; Excavation Permit; Revision 3

RMP 9011-2; Industrial Fire Door, HELB Door and Seismic 2/1 Door Inspections; Revision 7

RMP 9120; Auxiliary Building Crane Inspection; Revision 6

RMP 9155-3; Control of Diver Activities at Traveling Water Screens; Revision 9

WO 304417; RMP 9011-2, Industrial Fire Door, HELB Door and Seismic 2/1 Door Inspections; Completed May 24, 2007

WO 357910-01; RMP 9120, Auxiliary Building Crane Inspection; Completed April 20, 2009

WO 362541-01; Façade Ground Water Monitoring Well Chemical Analyses; Completed April 15, 2009

WO 367455-01; GL 89-13 Inspect and Clean Pumphouse Forebay, Diving Activities Per RMP 9155-1; completed April 3, 2010

WO 367484-08; Inspect Reactor Vessel Keyway and Reactor Vessel Support Area; completed March 2, 2010

WO 367486; 1RMP 9096-1; Reactor Vessel Head Removal and Installation Using Biach Tensioning System; Completed March 2, 2010

WO 373985-01; Façade Ground Water Monitoring Well Chemical Analyses; Completed February 1, 2010

#### Commitment Item 5

LR-AMP-015-RVINT; Reactor Vessel Internals Program Basis Document for License Renewal; Revision 8

MRP-227-A; Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A); December 2011

NP 7.7.30; Reactor Vessel Internals Program; Revision 1

#### Commitment Item 6

LR-AMP-015-RVINT; Reactor Vessel Internals Program Basis Document for License Renewal; Revision 8

MRP-227-A; Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A); December 2011

NP 7.7.30; Reactor Vessel Internals Program; Revision 1

Letter to NRC, 2011-0106; License Renewal Commitment Reactor Vessel Internals Program Submittal; December 19, 2011

#### Commitment Item 7

AR 00896844; Revise Process Control of Class I LBB Analysis (Licensing Review Required); dated October 24, 2005

AR 01175215; Phase II LR FSA: Commitment 7; dated June 11, 2010

AR 01179491; PCR 1175267 Not Issued, Conflicts with CCE 2010-003; dated August 20, 2010

CCE 2010-003; Commitment Change Evaluation; dated June 30, 2010

CCE 2010-007; Commitment Change Evaluation; dated August 20, 2010

ISI CL 1,2,3 Program; PBNP Class 1, 2, AND 3 Inservice Inspection Program; Revision 8

PBF-1554; Repair/Bolting Integrity Program Basis Document for License Renewal; Revision 6

NP 5.1.7; Regulatory Commitment Management; Revision 16

NP 7.2.5; Repair/Replacement Program; Revision 21

QF-0515A; Design Input Checklist (Part A – Engineering Programs and Departmental Reviews) Form; Revision 9

QF-0515B; Design Input Checklist (Part B – Design Considerations, Requirements, and Standards) Form; Revision 7

SEM 7.11.2; ISI Datasheet Review and Indication Evaluation Guideline; Revision 11

#### Commitment Item 8

Letter NRC 2010-0068; Revision to License Renewal Regulatory Commitment 29 Reactor Vessel Internals Program Implementation; April 23, 2010

Letter NRC 2010-0135; Consolidation of License Renewal Regulatory Commitment 8 with Commitment 29 Reactor Vessel Internals Program Implementation; August 18, 2010

Letter NRC 2011-0059; 10 CFR 50.59 Summary Report for 2010; July 1, 2011

LR-AMP-015-RVINT; Reactor Vessel Internals Program Basis Document for License Renewal; Revision 8

NP 7.7.30; Reactor Vessel Internals Program; Revision 1

#### Commitment Items 10, 12, and 30

NP 7.7.14; Reactor Vessel Integrity Program; Revision 11

TRM 2.2; Point Beach Nuclear Plant Technical Requirements Manual Pressure Temperature Limits Report; Revision 7

Letter NRC 2006-0054; Request for Review of Reactor Vessel Toughness Fracture Mechanics Analysis; June, 2006

Letter NRC 201 0-0004; Reactor Vessel Surveillance Program Request to Change Reactor Vessel Surveillance Specimen Withdrawal Schedule; January 19, 2010

Letter NRC; Point Beach Nuclear Plant, Units 1 and 2 – Issuance of Amendments Regarding Review of Reactor Vessel Fracture Mechanics Analysis (TAC Nos. MD2359 and MD2360); May 10, 2007

1022871; Materials Reliability Program: Coordinated PWR Reactor Vessel Surveillance Program (CRVSP) Guidelines (MRP-326); December 2011

BAW-1543(NP), Supplement 6-A; Supplement to the Master Integrated Reactor Vessel Inspection Program; Revision 4

BAW-2467NP; Low Upper-Shelf Toughness Fracture Mechanics Analysis of Reactor Vessel of Point Beach Units 1 and 2 for Extended Life through 53 Effective Full Power Years; Revision 1

LR-AMP-016-RVSURV; Reactor Vessel Surveillance Program Basis Document for License Renewal; Revision 8

PBF-7065; U2 – 2011 Determination of Reactor Vessel Effective Full Power Years; December 31, 2011

WCAP-16983-P; Point Beach Units 1 and 2 Extended Power Uprate (EPU) Engineering Report; Revision 0

#### Commitment Item 13

20012VT-136; VT-1 Flange Bolting, CVC-02-PS1-25-FB; November 17, 2012

2012UT-006; UT of Pipe to Reducer, RC-08-DR-2001-02; November 8, 2012

2012PT-001; Liquid Penetrant Examination, RHE-IWA-1; November 7, 2012

AR 01625685; NRC Observation During Visual (VT-3) Examinations; March 3, 2011

AR 01627282; NRC Question Regarding Component Support; March 8, 2011

AR 00897094; Implement ASME IWB, IWC, and IWD ISI Program (LR); October 25, 2005

ISI CL 1,2,3 Program; PBNP Class 1, 2, and 3 Inservice Inspection Program; Revision 12

2ISI CL 1,2,3 Schedule; PBNP Class 1, 2, and 3 Inservice Inspection Program Schedule; Revision 4

LR-AMP-017-IWBCD; ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program Basis Document for License Renewal; Revision 8

NP 7.2.5; Repair Replacement Program; Revision 24

NP 7.4.13; Inservice Inspection Program Procedure; Revision 12

#### Commitment Item 14

AR 00897102; Implement Enhanced ASME IWE and IWL Programs (LR); October 25, 2005

CLRT Testing Program Basis Document; Revision 13

ISI IWL App D 2nd Interval; IWL Concrete Examination Indication Basis Second Interval; Revision 2

ISI IWE Program 2nd Interval; IWE Containment Inspection Program Second Interval; Revision 2

ISI IWL 2nd Interval; IWL Containment Examination Inspection Program Second Interval; Revision 2

LR-AMP-028-IWEL; ASME Section XI, Subsection IWE and IWL Inservice Inspection Program Basis Document for License Renewal; Revision 9

NP 7.4.13; Inservice Inspection Program Procedure; Revision 12

SEM 7.11.2; ISI Datasheet Review and Indication Evaluation Guideline; Revision 11

WO 40095342: Containment Inspection IWE (Metal Liner); November 14, 2012

2012 VT -049; Containment Dome Plate Area 7, CD-07; November 14, 2012

#### Commitment Item 15

2012VT-026; Rigid Support, SI-250 1R-5-2SI-10; November 17, 2012

2012VT-033; Spring Hanger, AC-601R-3-2H6; November 13, 2012

AR 01695852; NRC Question from ISI Inspection; October 12, 2011

AR 01384103; SI-1501R-2-H1, Spring Hanger Load does not Match Drawing; March 6, 2010

2ISI CL 1,2,3 Schedule; PBNP Class 1, 2, and 3 Inservice Inspection Program Schedule; Revision 4

ISI Class 1, 2, 3 Program; Point Beach Nuclear Plant Class 1, 2, and 3 Inservice Inspection Program Fifth Inservice Inspection Interval; Revision 112

LR-AMP-027-IWF, ASME Section XI, Subsection IWF Inservice Inspection Program Basis Document for License Renewal; Revision 8

NP 7.4.13; Inservice Inspection Program Procedure; Revision 12

#### Commitment Items 16 and 60

DG-M18; Fastener Design Guideline; Revision 2

QI-7-NSC-2; Receipt Inspection of Quality Related Material; Revision 6

FP-E-SE-04; Conduct of System Engineering; Revision 6

LR-AMP-032-BOLTINT; Bolting Integrity Program Basis Document for License Renewal; Revision 9

MI 29.1; Use of thread Lubricants and Sealants; Revision 10

MI 32.1; Flange and closure Bolting; Revision 17

Receipt No. 64663; QC Receiving Inspection Package: Stud, All Thread, 1-1/4" x 7-1/4"; 11/22/12

Receipt No. 64220; QC Receiving Inspection Package: Stud, 3/4" x 6", 10 UNC; 11/25/12

WO 00380253; 2T-001 Check Torque on Manway Cover Bolts; 06/09/11

Commitment Items 17 and 65

FPL Energy Point Beach Nuclear Plant Letter NRC 2008-0044; License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated July 24, 2008

FPL Energy Point Beach Nuclear Plant Letter NRC 2008-0071; Supplement to License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated September 19, 2008

FPL Energy Point Beach Nuclear Plant Letter NRC 2009-0037; Response to Request for Additional Information, License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated April 14, 2009

FPL Energy Point Beach Nuclear Plant Letter NRC 2009-0057; Response to Request for Additional Information, License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated May 22, 2009

FPL Energy Point Beach Nuclear Plant Letter NRC 2009-0073; Response to Request for Additional Information, License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated August 7, 2009

FPL Energy Point Beach Nuclear Plant Letter NRC 2009-0084; Response to Request for Additional Information, License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated August 27, 2009

FPL Energy Point Beach Nuclear Plant Letter NRC 2009-0110; Response to Request for Additional Information, License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated November 20, 2009

FPL Energy Point Beach Nuclear Plant Letter NRC 2010-0002; Supplement to License Amendment Request Number 247: Spent Fuel Pool Storage Criticality Control; dated February 2, 2010

NRC Letter (J. Poole) to Point Beach Nuclear Plant (L. Meyer); Subject: Point Beach Nuclear Plant, Units 1 and 2 – Issuance of Amendments, Re: Spent Fuel Pool Storage Criticality Control (TAC Nos. MD 9321 and MD 9322); dated March 5, 2010

Commitment Item 18

AR 01701436; BA Quick Hit Assessment Report; June 6, 2012

BACLM Program; Boric Acid Leakage and Corrosion Monitoring Program; Revision 7

BACLM Appendix A; Reactor Coolant System Leak Test Boundary Document; Revision 9

BACLM Appendix B; Boric Acid Examination Guidelines; Revision 5

BACLM Appendix C; Boric Acid Indication Evaluation; Revision 10

Boric Acid Program Health Report; December 10, 2012

WO 358994; PB2, U2 As-Found Boric Acid Containment; September 15, 2009

WO 380327; As-Found BA Walkdown, Containment General Areas; March 1, 2011

Commitment Items 19 and 58

PBNP Buried Piping Inspection Plan; Revision 2



Buried Piping Program Health Report; 12/31/12  
CCE 2010-003; Commitment Change Evaluation; dated June 30, 2010  
FP-IH-EXC-01; Excavation and Trenching Controls; Revision 6  
LR-AMP-018-BSMON; Buried Services Monitoring Program Basis Document for License Renewal; Revision 8  
PBSA-12-21; Buried Piping Program Self Assessment; 03/28/11  
PMRQ 00062625-01; PB0 – Inspect Buried Fire Protection System Piping; due date 09/28/17  
SEM 8.0; Buried Services Monitoring Program; Revision 5  
WO 40151263; Piping KC-01 1 Excavate 10 FT of Fire Protection Piping; 06/27/12

Commitment Items 20 and 55

NP 7.7.28; Cable Condition Monitoring Procedure Revision 7  
AR 00901420; Test Representative Sample of Non-EQ Cables (LR); 11/22/2005  
AR 01176987; Cable Condition Monitoring Program Requirements; 07/12/2010  
AR 01177205; Visual Inspection of Cable Trays; 07/14/2010  
LR-AMP-014-CCMON; Cable Conditioning Monitoring Program Basis; Revision 8  
PBSA-ENG-09-06; Cable Conditioning Monitoring Program Assessment; 12/01/09  
PMRQ 00018554; Perform Tan Delta Testing of 2X04 13.8 cables; 10/01/2012  
WO 386142-01; Perform Tan Delta Testing of 2P-15B-M from 2A52-88; 04/06/2011  
WO 367043-01; NIS Source Range Channels Calibration & ECAD Test; 03/25/2010  
WO 390321-01; Pump Electrical Manhole Sumps Weekly; 11/22/2010  
WO 362488-01; Perform Inspection of Manhole Z-066A; 05/16/2011  
WO 389666-01; Perform Tan Delta Testing of 2X-03 13.8 cables; 03/25/2011  
WO 389664-01 Perform Tan Delta Testing of 2X-04 13.8 cables; 04/01/2011

Commitment Item 21

2-PT-CC-1; CCW System Pressure Test – Outside Containment Unit 2; Revision 6  
2-PT-CC-2; CCW System Pressure Test – Inside Containment Unit 2; Revision 3  
Basis Document for License Renewal, revision 6  
AR 1378094; Revise LR-AMP-023-CCCW to Reflect Changes in Chemistry Control; 12/2/2009  
LR-AMP-023-CCCW, Closed Cycle Cooling Water System Surveillance Program  
WO 368833; TS-82, GO2 EDG Operability Test; 02/23/2010  
WO 372738; HX-38 A/B Chemical Sampling; 12/29/2009  
WO 368659; EDG GO4 Coolant Sampling; 04/05/2010

Commitment Item 22

0-PT-FP-004; Annual Fire Pump Capacity Test; Revision 9  
0-PT-FP-005; Annual Underground Fire Main Flow Test; Revision 7  
0-PT-FP-008; Triennial Service Testing of Fire Hose and Fire Hose Stations; Revision 6  
NP7.7.22; Service Water and Fire Protection Inspection Program; Revision 6  
LR-AMP-010-FP; Fire Protection Basis Document; Revision 5  
PC 76 Part 7; Inspection of Fixed Automatic Dry Chemical Fire Extinguishing Systems; Revision 15  
PC 77 Part 5; Automatic Wet Pipe Fire Protection System Alarm Verification Test  
WO 384946-01; Fire Barrier Inspection per RMP 9057; 09/13/2011  
WO 367117-01; Inspect and Maintain Containment Fire Barriers per RMP 59; 03/26/2010  
WO 377875-01; Inspect and Maintain Fire Doors; 05/28/2010  
RMP 9011-1; Safe Shutdown Fire Door Inspections; Revision 14  
RMP 9057; Fire Barrier Penetration Fire Seal Surveillance; Revision 11  
AR 1607352; 1.5 GPM Fire Header Leak Since June 2008; 01/10/2011  
AR 1623991; Degraded Fire Seal Between PAB and AFP Room; 02/25/2011  
AR 1779876; Electrical Penetration in CSR has no Fire Sealant on One Side; 06/27/2012

Commitment Items 23, and 63

AR 01668248; U2 FAC CHECWORKS Model Inaccurate with EPU Changes; July 11, 2011  
AR 01820380; 2MSEB04-047, No Existing Pipe Stress Analysis; November 6, 2012  
AR 01820533; 2FDEB06-077, No Existing Pipe Stress Analysis; November 7, 2012  
AR 01820720; 2FDEB06-010, No Existing Pipe Stress Analysis; November 8, 2012  
U2R31 Refueling Outage; Unit 2 FAC Outage Report; July 24, 2012  
FP-PE-FAC-01; Flow Accelerated Corrosion Inspection Plan; Revision 8  
LR-AMP-009-FAC Flow Accelerated Corrosion Program Basis Document for License Renewal; Revision 12  
SEM 7.8.3; Flow Accelerated Corrosion Program Basis Document; Revision 14  
N-597-2; Requirements for Analytical Evaluation of Pipe Wall Thinning; November 18, 2003

#### Commitment Item 24

LR-AMP-002-FOCHEM; Fuel Oil Chemistry Control Program Basis Document; Revision 7

OI 92A; Fuel Oil Ordering, Receipt Sampling, and Offloading; Revision 19

PBF-3005A; Quarterly Sampling of Emergency Fuel Oil Tanks; 05/03/2012

WO 365389; Internal Visual Inspection of GO2 Skid Mounted Fuel Oil Storage Tank; 06/19/2009

WO 368830; Sampling of Emergency Fuel Oil Tanks per)-TS-080 04/09/ 2010

WO 372918; Internal Visual Examination of Fuel Oil Storage Tank T-032A; 11/11/2010

AR 1171319; T-32 A/B New Fuel Does Not Meet Specs; 04/07/2010

AR 1179185; EDG Fuel Oil System Not Per License Description; 08/16/2010

AR 1179797; Fuel Oil License Renewal Commitment Not Changed as Needed; 08/25/2010

AR 1708998; Fuel Oil in T-173 Does Not Meet PBF-3006 Criteria; 11/22/2011

AR 1376661; No. 2 Diesel Fuel Does Not Meet the Specs of ASTM; 11/11/2009

#### Commitment Items 25, 45, 59

AR 1630206; Tube Vibration Damage and Tube Plugging in U2 RHR HX-11B; 03/16/2011

AR 1631132; Tube Vibration Damage in U2 RHR HX-11A; 03/19/2011

AR 1633239; Results of Follow up License Renewal Inspection on 2RH-624; 03/24/2011

LR-AMP-024-OTINSP; One-Time Inspection Program Basis Document; Revision 9

LR-TR-519; One-Time Inspection Program Sampling Methodology; Revision 3

WO 391137; Perform VT of T-7 BA Batching Tank Inlet Strainer; 6/11/2012

WO 391386; Perform a Follow up Inspection of 2RH-00624; 3/19/2011

WO 392612; Inspect P-38A AFP Cooling Water Solenoid for Selective Leaching; 08/24/2011

WO 392689; Inspect FP-00069 Valve for Selective Leaching; 07/29/2011

#### Commitment Item 26

AR 1610472; Lack of 89-13 Program (SW System Fouling and Degradation); 1/19/2011

AR 1690769; 1 & 2 P-053, MDAFW Pump SW Flush Lines are Undersized; 09/28/2011

AR 1822183; CFC HX-15A1-A8 Tube Degradation Concerns; 11/10/2012

LR-AMP-021-OCCW; Open Cycle Cooling Water Program; Revision 7

RMP 9233-3 HX-12A/B/C/D CCW Heat Exchanger Hydrolance Cleaning; Revision 4

RMP 9326; General Maintenance Inspection of Check Valves; Revision 8

WO 379842; Clean & Inspect Containment Cavity Cooler Drip Pans; 03/06/2011

WO 377324; Clean & Inspect Cable Spreading Room A/C HX-038A1/A2; 05/14/2010

WO 373676; Remove End Bells and Hydrolance PAB Battery Room Vent Cooler HX-105A; 01/07/2012

WO 378963; Eddy Current Inspect PAB Battery Room Vent Cooler HX-105B; 02/18/2010

WO 354646; Eddy Current Inspect CCW HX-012B; 01/14/2011

WO 380014; Open, Inspect & Clean Containment Accident Recirculation HX-015D1; 03/31/2011

#### Commitment Items 27, 56, and 64

AR 1399116; PM Retired Without Adequate Review; 10/28/2010

AR 1400255; No Formal Deferral For Heat Exchangers Past 125% PM Due Date; 11/17/2010

AR 1664927; PMCR Date Moved Out Without Documented Justification; 06/28/2011

LR-AMP-004-PSPM; Periodic Surveillance and Preventive Maintenance Program; Revision 8

NDE-701; Visual Examination of Components for License Renewal; Revision 2

2RMP 9176-1; Reactor Cavity Seal Ring ZZ-045 Inspection, Repair and Replacement; Revision 6

WO 368164; 23/H-01 Annual Bus Strip Heater Inspection; 05/18/2010

WO 382352; PB2-JB01 8" CW Screen Wash Pipe UT; 08/19/2010

WO 374507; F-016 Inspect/Replace Door Gaskets and Hardware; 01/28/2010

WO 377967; 345 kV System Switchyard Component Thermography; 05/25/2010

WO 380409; Inspect and Maintain Unit 2 Reactor Cavity Seal Ring; 03/02/2011

WO 389665; Transformer 2X-04 Bus Duct Inspection and Doble Testing; 04/01/2011

#### Commitment Items 28, 52, and 53

1009561; Materials Reliability Program: Generic Guidance for Alloy 600 Management (MRP-126); November 2004

AR 00899656; Implement a Reactor Coolant System Alloy 600 Inspection Program; November 9, 2005

LR-AMP-013-RCA600; Reactor Coolant System Alloy 600 Inspection Program Basis Document for License Renewal; Revision 9

ML092710593; Point Beach Nuclear Plant, Units 1 and 2 – Alloy 600 Program License Renewal Commitment Submittal (TAC Nos. MD9958 and MD9959); October 6, 2009

NRC 2005-0002; Response to Request for Additional Information Regarding the Point Beach Nuclear Plant License Renewal Application (TAC Nos. MC2099 and MC2100); January 25, 2005

NRC 2008-0070; License Renewal Commitment Alloy 600 Program Submittal; October 6, 2008

ISI CL 1, 2, 3 Program; PBNP Class 1, 2, and 3 Inservice Inspection Program; Revision 12

ISI CL 1, 2, 3 Schedule; PBNP Class 1, 2, and 3 Inservice Inspection Program Schedule; Revision 4

AM 3-31; Alloy 600 Management Program; Revision 5

NP 7.7.31; Alloy 600 Management Program; Revision 3

AR 00899656; Implement RCS Alloy 600 Insp Prog (LR); November 9, 2005

#### Commitment Item 29

Letter NRC 2010-0068; Revision to License Renewal Regulatory Commitment 29 Reactor Vessel Internals Program Implementation; April 23, 2010

Letter NRC 2010-0135; Consolidation of License Renewal Regulatory Commitment 8 with Commitment 29 Reactor Vessel Internals Program Implementation; August 18, 2010

Letter to NRC 2011-0106; License Renewal Commitment, Reactor Vessel Internals Program Submittal; dated December 19, 2011

LR-AMP-015-RVINT; Reactor Vessel Internals Program Basis Document for License Renewal; Revision 8

MRP-227; Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines; December 2011

#### Commitment Items 31, 50, and 68

AR 00899691; Implement a Steam Generator Integrity Program; dated November 9, 2005

AR 01394238; U2 R32 SG A/B Erosion/Corrosion Inspection for EPU Condition; August 5, 2012

AR 01396215; Steam Generator Self Assessment Enhancement Items; September 8, 2010

CCE 2007-002; Commitment Change Evaluation; dated March 14, 2007

LR-AMP-001-WCHEM; Water Chemistry Control Program for License Renewal; Revision 7

LR-AMP-003-SGINT; Steam Generator Integrity Program Basis Document for License Renewal; Revision 7

NP 7.7.16; Steam Generator Program; Revision 13

NP 7.7.17; Requirements for Steam Generator Secondary Side Activities; Revision 14

NP 7.7.18; Requirements for Steam Generator Secondary Side Activities; Revision 9

SG-SGMP-12-20; Steam Generator Condition Monitoring and Operational Assessment for Point Beach 2012 Outage U2R32, November 27, 2012

SG-SGMP-12-12; Point Beach U2R32 Steam Generator Degradation Assessment; October 1, 2012

NP 3.2.3; Secondary Water Chemistry Monitoring Program; Revision 25

### Commitment Items 33 and 62

AR 01798818; Tracking of U2 System Walkdowns for License Renewal; 08/30/12  
AR 01819205; System Monitoring Walkdowns; 11/02/2012  
FP-E-SE-04; Conduct of System Engineering; Revision 6  
LR-AMP-007-SYSMON; System Monitoring Program Basis Document; Revision 8  
PBF-7040a; System Walkdown for PAB Ventilation; 8/8/2012  
PBF-7040a; System Walkdown for Spent Fuel Cooling; 11/26/2012  
PBF-7040a; System Walkdown for Residual heat Removal; 11/25/2012  
PBF-7040a; System Walkdown for Diesel Generators; 11/12/2012

### Commitment Item 34

AR 01377291; Acceptance Criteria Not Met on T-060/61 UT Inspection; 11/19/09  
LR-AMP-019-TNKINT; Tank Internal Inspection Program; Revision 8  
Various PMRQ records  
WO 394335; OT-060 D NDE Examination; April 16, 2012  
WO 394334; OT-060 C NDE Examination; April 16, 2012  
WO 394333; OT-060 B NDE Examination; April 16, 2012  
WO 394332; OT-060 A NDE Examination; April 16, 2012  
WO 394338; OT-061 A NDE Examination; February 13, 2012

### Commitment Item 35

HX-02; Thimble Tube Condition Assessment Program; Revision 11  
LR-AMP-006-TTI ; Thimble Tube Inspection Program Basis Document for License Renewal; Revision 10  
NPM 2012-0352; 2012 U2R32 Thimble Tube Eddy Current Inspection Report; 11/20/12  
FPLE-PBNP2-01; U2R32 Thimble Tube Inspection Report; November 6, 2012

### Commitment Item 36

CAMP 101; Daily Routine Sampling Schedule for, Refueling or Shutdown Units; Revision 67  
CAMP 115; Chemistry Control Monitoring During a Plant Startup; Revision 29  
NP 3.1.1; Chemical Contamination Control for Corrosion Resistant Alloys; Revision 21  
NP 3.2.2; Primary Water Chemistry Monitoring Program; Revision 23  
NP 3.2.3; Secondary Water Chemistry Monitoring Program; Revision 25  
AR 1402047; Unit 2 Secondary Chemistry Excursion; 01/22/2011  
AR 1665813; Unit Steam Generator Sodium Above CEI Value; 06/11/2011  
AR 1694063; Unit 2 Action Level 1 for High Lithium; 05/02/2011

NP 3.2.3; Secondary Water Chemistry Monitoring Program; Revision 22

Commitment Item 37

NP 7.7.1; Environmental Qualification of Electrical Equipment; Revision 12

AR 1716155; Missed EQ Position Switch Replacement; 12/14/2011

AR 1695258; EQ Equipment Scheduled for Unit 2 Outage Could Not be Worked; 10/11/2011

AR 1615977; WO 390611 Scheduled Past Required EQ End of Life; 02/03/2011

AR 1707031; Adverse Trend Regarding Extension of EQ PMs; 11/15/2011

AR 1714735; Deferral of SI-850 SOVs EQ Replacement; 12/10/2011

EQCK-3M-001; EQ Assessment of 3M Scotch 130C Tape Splices; Revision 2

EQCK-CONAX-004; EQ Assessment of Model # 7366-10000 Series Thermocouples; Revision 2

EQCK-ROME-001; EQ Assessment of ROME and OKONITE PVC Instrumentation Cables; Revision 2

LR AMP-012-EQ; EQ Program Basis Document; Revision 8

Commitment Item 38

AR 01819789; Fatigue Monitoring Program; dated November 3, 2012

Report No. 1000484.401.R0; Structural Integrity MRP-146S Scoping Evaluation of Screened-in RHR Suction Lines at Point Beach; dated August 18, 2011

MRP-146; Materials Reliability Program: Management of Thermal Fatigue in Normally Stagnant Non-Isolable Reactor Coolant System Branch Lines; Revision 1

NP 7.7.19 Fatigue Evaluation; Unit 2 Fourth Quarter 2011; date February 9, 2012

LR-AMP-025-FATMON; Program Basis document for License Renewal: Fatigue Monitoring; Revision 9

NP 7.7.19; Fatigue Monitoring Program; Revision 5

Commitment Item 39

LR-AMP-015-RVINT; Reactor Vessel Internals Program Basis Document for License Renewal; Revision 8

MRP-227-A; Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A); December 2011

NP 7.7.30; Reactor Vessel Internals Program; Revision 1

Letter to NRC, 2011-0106; License Renewal Commitment Reactor Vessel Internals Program Submittal; December 19, 2011

Commitment Items 46, 47, and 48

FP-NF-NAD-01; Nuclear Fuel Management Process for Point Beach; Revision 6

NP 7.7.14; Reactor Vessel Integrity Program; Revision 11

NF-NA-11-26 Revision 1; Unit 2 Cycle 32 Reload Safety Evaluation; April 15, 2011

NF-11-100; Unit 2 Cycle 32 Final Core Loading Pattern; March 15, 2011  
NF-11-035 Revision 1; Reload Safety and Licensing Checklist; April 11, 2011  
NF-NA-12-161; Unit 2 Cycle 33 Reload Safety Evaluation; September 12, 2012  
NF-12-322; Unit 2 Cycle 33 Final Core Loading Pattern; August 1, 2012  
PBN-2FJF -12-263; Reload Safety and Licensing Checklist; Revision 0  
NRC 2013-0005; License Amendment Request 252; January 15, 2013

#### Commitment Item 51

1023447; EPRI-PSEG Pioneers New Technique to Examine Small Bore Piping Welds;  
July 2011

AR 01718463; PBSA-ENG-11-12, Enhancements to LR Documents; dated June 27,  
2012

ISI CL 1, 2, 3 Program; PBNP Class 1, 2, and 3 Inservice Inspection Program; Revision  
12

LR-AMP-017-IWBCD; ASME Section XI, Subsections IWB, IWC, and IWD Inservice  
Inspection Program Basis Document for License Renewal; Revision 8

NP 7.4.13; Inservice Inspection Program Procedure; Revision 12

#### Commitment Item 66

Code Case N-616; Alternative Requirements for VT-2 Visual Examination of Class 1, 2,  
and 3 Insulated Pressure-Retaining Bolted Connections, Section XI, Division 1; May 7,  
1999

NRC 2011-0059; 10 CFR 50.59 Summary Report for 2010; July 1, 2011

#### Commitment Item 67

LTR-PAFM-05-58; Flaw Tolerance Evaluation for Susceptible CASS Reactor Coolant  
Piping Components in Point Beach Units 1 and 2; Revision 0

NRC 2995-0044; Response to Request for Additional Information Regarding the Point  
Beach Nuclear Plant License Renewal Application (TAC Nos. MC2099 and MC2100);  
June 9, 2005



Commitment Item 71

ISI IWE Program 2nd Interval; IWE Containment Inspection Program Second Interval; Revision 2

LR-AMP-028-IWEL; ASME Section XI, Subsection IWE and IWL Inservice Inspection Program Basis Document for License Renewal; Revision 9

NRC 2011-0084; Filing of Owner's Inservice Inspection Summary Report for Point Beach Nuclear Plant Refueling Outage U2R31; September 12, 2011

Commitment Item 72

ISI IWE Program 2nd Interval; IWE Containment Inspection Program Second Interval; Revision 2

LR-AMP-028-IWEL; ASME Section XI, Subsection IWE and IWL Inservice Inspection Program Basis Document for License Renewal; Revision 9

NRC 2011-0084; Filing of Owner's Inservice Inspection Summary Report for Point Beach Nuclear Plant Refueling Outage U2R31; September 12, 2011

WO 40095342: Containment Inspection IWE (Metal Liner); November 14, 2012

2012VT-043; Containment Dome Plate Area 1, CD-01; November 14, 2012

2012VT-044; Containment Dome Plate Area 2, CD-02; November 14, 2012

2012VT-045; Containment Dome Plate Area 3, CD-03; November 14, 2012

2012VT-046; Containment Dome Plate Area 4, CD-04; November 14, 2012

2012VT-062; Containment Dome Truss Support, DTS-02; November 14, 2012

## LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
AMP	Aging Management Program
AR	Action Request
ASME	American Society of Mechanical Engineers
CASS	Cast Austenitic Stainless Steel
CCE	Commitment Change Evaluation
CFR	Code of Federal Regulations
CR	Condition Report
CRVSP	Coordinated PWR Reactor Vessel Surveillance Program
EOL	End of Life
EPRI	Electric Power Research Institute
EQ	Environmental Qualification
ET	Eddy Current Testing
FAC	Flow Accelerated Corrosion
FSAR	Final Safety Analysis Report
GALL	Generic Aging Lessons Learned
IR	Inspection Report
ISI	Inservice Inspection
LBB	Leak Before Break
MRP	Material Reliability Project
NDE	Non-Destructive Examination
NEI	Nuclear Energy Institute
NPS	Nominal Pipe Size
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records
PBNP	Point Beach Nuclear Plant
PSPM	Periodic Surveillance And Preventive Maintenance
PTS	Pressurized Thermal Shock
PWR	Pressurized Water Reactor
PWROG	Pressurized Water Reactor Owners Group
RHR	Residual Heat Removal
RIS	Regulatory Information Summary
RPV	Reactor Pressure Vessel
RVI	Reactor Vessel Internals
SER	Safety Evaluation Report
SSC	Systems, Structures, And Components
TLAA	Time-Limited Aging Analysis
TRM	Technical Requirements Manual
UT	Ultrasonic Testing
WO	Work Order

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

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT 2 NRC POST-APPROVAL SITE INSPECTION FOR  
LICENSE RENEWAL INSPECTION REPORT 05000301/2013008

Dear Mr. Meyer:

On February 7, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed a Post-Approval Site Inspection for License Renewal at your Point Beach Nuclear Plant, Unit 2. The enclosed report documents the results of this inspection, which were discussed on February 7, 2013, with you and other 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.

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The team concluded that commitments were properly identified, implemented, and completed.

On the basis of the sample selected for review and in consultation with the Division of License Renewal in the Office of Nuclear Reactor Regulation, the NRC concludes the licensee has completed the necessary commitments for operation into the period of extended operation.

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 document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Ann Marie Stone, Chief  
Engineering Branch 2  
Division of Reactor Safety

Docket Nos. 50-301  
License Nos. DPR-27

Enclosure: Inspection Report 05000301/2013008  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ™

**DISTRIBUTION:**  
See next page

DOCUMENT NAME: G:\DRSIII\Engineering Branch 2\Working On\POI 2013 008 DRS SNS.docx  
 Publicly Available     Non-Publicly Available     Sensitive     Non-Sensitive  
To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	RIII	RIII
NAME	SSheldon:ls	AMStone	
DATE	03/18/13	03/18/13	

**OFFICIAL RECORD COPY**

Letter to Mr. Larry Meyer from Ms. Ann Marie Stone dated March 18, 2013.

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT 2 NRC POST-APPROVAL SITE  
INSPECTION FOR LICENSE RENEWAL INSPECTION REPORT  
05000301/2013008

DISTRIBUTION:

John Cassidy  
RidsNrrDorLpl3-1 Resource  
RidsNrrPMPointBeach  
RidsNrrDirslrib Resource  
Chuck Casto  
Cynthia Pederson  
Steven Orth  
Allan Barker  
Christine Lipa  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Tammy Tomczak  
ROPreports Resource