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December 10, 2012

SBK-L-12258 Docket No. 50-443

U.S. Nuclear Regulatory Commission Attention: Document Control Desk One White Flint North 11555 Rockville Pike Rockville, MD 20852

Seabrook Station LRA Commitment Update and RAI B.1.4-4 Clarification NextEra Energy Seabrook License Renewal Application

References:

- 1. NextEra Energy Seabrook, LLC letter SBK-L-10077, "Seabrook Station Application for Renewed Operating License," May 25, 2010. (Accession Number ML101590099)
- NextEra Energy Seabrook, LLC letter SBK-L-12084, "Seabrook Station Response to Request for Additional Information NextEra Energy Seabrook License Renewal Application Supplemental Response – RAI B.2.1.11-2 and B.2.1.12-6," April 26, 2012. (Accession Number ML121220298)
- 3. NextEra Energy Seabrook, LLC letter SBK-L-12123, "Seabrook Station Next Era Energy Seabrook License Renewal Application Supplement #25," June 19, 2012. (Accession Number ML12178A405)
- NextEra Energy Seabrook, LLC letter SBK-L-12072, "Request for Permanent Application of Steam Generator Tube Alternate Repair Criteria, H*," April 10, 2012. (Accession Number ML12121A527)
- Amendment 131 to facility Operating License No. NPF-86 for the Seabrook Station, Unit No. 1, "Seabrook Station, Unit No.1 – Issuance of Amendment Re: Permanent Application of Steam Generator Tube Alternate repair Criteria, H*," September 10, 2012. (Accession Number ML12178A537)
- NextEra Energy Seabrook, LLC letter SBK-L-12183, "Seabrook Station Response to Request for Additional Information NextEra Energy Seabrook License Renewal Application Request for Additional Information – Set 18 (Operating Experience)," September 18, 2012. (Accession Number ML 12268A170)

In Reference 1, NextEra Energy Seabrook, LLC (NextEra) submitted an application for a renewed facility operating license for Seabrook Station Unit 1 in accordance with the Code of Federal Regulations, Title 10, Parts 50, 51, and 54.

In Reference 2, NextEra last confirmed the scheduled date for implementation of commitment number 52, "Implement measures to maintain the exterior surface of the Containment Structure, from elevation -30 feet to +20 feet dewatered by December 31, 2012." Measures have been put

in place to maintain the subject area dewatered. LRA Table A.3 has been revised to reflect commitment number 52 as ongoing. This change is reflected in the revised commitment list included in Enclosure 3.

In Reference 3, NextEra responded to the NRC requests for additional information related to removal of a seal cap enclosure from SI-V-82, where it was stated that the removal of the seal cap enclosure and restoration of the original configuration would be completed no later than December 31, 2014. The valve, including its seal cap enclosure, was removed and the valve replaced during the recent OR15 refueling outage. This item is complete. Enclosure 1 contains changes to the LRA associated with completion of this commitment.

Also in Reference 3, NextEra provided clarification to the response provided for RAI B.2.1.10-1 related to Steam Generator Tube-to-Tubesheet Weld Inspection Plans. In that letter, commitment number 54 was revised to address the potential for cracking due to PWSCC of tube-to-tubesheet welds using one of two options specified. The evaluation specified in commitment number 54, option #2, is complete (Reference 4). Permanent application of the steam generator tube alternate repair criteria, H* is documented in Amendment No. 131 to the Facility Operating License No. NPF-86 (Reference 5). This item is complete. Enclosure 1 contains changes to the LRA associated with completion of this commitment. This change is also reflected in the revised commitment list included in Enclosure 3.

In Reference 6, NextEra responded to requests for additional information related to operating experience. During a telephone conference with the NRC Staff on December 4, 2012, clarification was requested pertaining to the response to RAI B.1.4-4 c), as to the responsibilities of the License Renewal Engineer, and sharing of site operating experience with the rest of the nuclear industry. This clarification is provided in Enclosure 2.

Provided in this Supplement are changes to the License Renewal Application (LRA). To facilitate understanding, the changes are explained, and where appropriate, portions of the LRA are repeated with the change highlighted by strikethroughs for deleted text and bolded italics for inserted text.

There are no new or revised regulatory commitments contained in this letter, however, completion status of previously made commitments has changed. Enclosure 3 contains an update to LRA Appendix A - Final Safety Report Supplement Table A.3, License Renewal Commitment List, to reflect completion status changes.

If there are any questions or additional information is needed, please contact Mr. Richard R. Cliche, License Renewal Project Manager, at (603) 773-7003.

If you have any questions regarding this correspondence, please contact Mr. Michael O'Keefe, Licensing Manager, at (603) 773-7745.

Sincerely, NextEra Energy Seabrook, LLC.

Kevin T. Walsh Site Vice President

Enclosure 1 - Changes to the LRA Associated with Completed Commitments

Enclosure 2 – Clarification of Response to RAI B.1.4-4 c)

Enclosure 3 - LRA Appendix A - Final Safety Report Supplement Table A.3, License Renewal Commitment List Updated to Reflect Completion Status Changes.

cc:

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J. G. Lamb,	NRC Project Manager, Project Directorate I-2
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I, Kevin Walsh, Site Vice President of NextEra Energy Seabrook, LLC hereby affirm that the information and statements contained within are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed

Before me this

/*O* day of December, 2012

Kevin T. Walsh Site Vice President

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Notary Public



Enclosure 1 to SBK-L-12258

Changes to the LRA Associated with Completed Commitments

<u>Commitment: Removal of the seal cap enclosures and restoration of the original</u> <u>configuration to be completed no later than December 31, 2014.</u>

In NextEra Energy Seabrook, LLC letter SBK-L-12123 (Reference 3), NextEra responded to the NRC request for additional information RAI B.2.1.9-2 related to removal of a seal cap enclosure from SI-V-82, where it was stated that the removal of the seal cap enclosure and restoration of the original configuration would be completed no later than December 31, 2014. The valve, including its seal cap enclosure, was removed and the valve replaced during the recent OR15 refueling outage. This item has been completed. As a result, the following changes are made to the LRA.

1) License Renewal Application Appendix A, Section A.2.1.9, page A-9, is revised by deleting the second paragraph added by Reference 3 as follows.

Seabrook Station has one seal cap enclosure that surrounds the pressure retaining bolts of valve 1-SI-V-82. The seal cap enclosures on SI-V-82 was installed during the 2011 Forced Outage to allow continued operation of the unit until such time that the valve could be repaired. The installation of a seal cap enclosures creates a submerged environment that prevents the aging management of the bolting and component external surfaces for loss of material, loss of preload, cracking, and change in material properties. Therefore, removal of the seal cap enclosures and restoration of the original configuration is planned to be completed no later than December 31, 2014. With the removal of the seal cap enclosures the existing aging management programs will remain sufficient to age manage the bolting and component external surfaces for loss of material, loss of preload, cracking, and programs will remain sufficient to age manage the bolting and component external surfaces for loss of material, loss of preload, cracking surfaces for loss of material, loss of preload, eracking, and change in material properties.

2) License Renewal Application Appendix B, Section B.2.1.9, page B-60, is revised by deleting the second paragraph added by Reference 3 as follows.

Seabrook Station has one seal cap enclosures that surrounds the pressure-retaining bolts of valve 1 SI-V-82. The seal cap enclosures on SI-V-82 was installed during the 2011 Forced Outage to allow continued operation of the unit until such time that the valve could be repaired. The installation of a seal cap enclosures creates a submerged environment that prevents the aging management of the bolting and component external surfaces for loss of material, loss of preload, cracking, and change in material properties. Therefore, removal of the seal cap enclosures and restoration of the original configuration is planned to be completed no later than December 31, 2014. With the removal of the seal cap enclosures the existing aging management programs will remain sufficient to age manage the bolting and component external surfaces for loss of material, loss of preload, cracking, and change in material, loss of preload, cracking, and change in component external surfaces for loss of material, loss of the seal cap enclosures and restoration of the original configuration is planned to be completed no later than December 31, 2014. With the removal of the seal cap enclosures and component external surfaces for loss of material, loss of preload, cracking, and change in material properties during the period of extended operation.

- 3) License Renewal Application Appendix B, Section B.2.1.9, page B-57, is revised by adding new Operating Experience item 6 as follows.
 - 6. NRC Information Notice 2012-15 was issued in August of 2012. This notice was issued to inform addressees of potential issues associated with the installation of seal cap enclosures (enclosures) to mitigate leakage from A-286 bolted connections

in nuclear power plant piping. During a 2011 Forced Outage Seabrook, installed a seal cap enclosure on a bolted bonnet check valve to allow continued operation of the unit until such time that the valve could be repaired. The installation of a seal cap enclosure created a submerged environment that would prevent the aging management of the bolting and component external surfaces for loss of material, loss of preload, cracking, and change in material properties. In June of 2011, Seabrook Station notified the NRC License Renewal Staff of this condition and stated plans to remove the seal cap enclosure no later than December 31, 2014. The valve, including its seal cap enclosure, was removed and the valve replaced in the fall of 2012, during Refuel Outage 15. With the removal of the seal cap enclosure, the existing aging management programs remain sufficient to age manage the bolting and component external surfaces for loss of material, loss of preload, cracking, and change in material properties during the period of extended operation.

Commitment (#54): Address the potential for cracking of the primary to secondary pressure boundary due to PWSCC of tube-to-tubesheet welds using one of the following two specified options at least 24 months prior to entering the period of extended operation.

In NextEra Energy Seabrook, LLC letter SBK-L-12123 (Reference 3), clarification was provided to RAI B.2.1.10-1 response related to the Steam Generator Tube Integrity Program. A commitment (#54) was made in that letter to address the potential for cracking of the primary to secondary pressure boundary due to PWSCC of tube-to-tubesheet welds using one of two specified options at least 24 months prior to entering the period of extended operation:.

Amendment 131 to the Facility Operating License No. NPF-86 for Seabrook Station, Unit No. 1 was issued on September 10, 2012 (ML12178A537). This amendment provides permanent application of steam generator tube alternate repair criteria, H*, thus satisfying completion of LRA commitment #54. Based on this amendment, NextEra has revised the response provided in Reference 3 to RAI B.2.1.10-1 as follows:.

NextEra Energy Seabrook Revised Response to RAI B.2.1.10-1:

- 1. Based on the currently approved alternate repair criteria, the Seabrook Station steam generator tube-to-tubesheet welds are not included in the reactor coolant pressure boundary. This alternate repair criteria has not yet been permanently approved. Amendment 131 to the Facility Operating License No. NPF-86 for Seabrook Station, Unit No. 1 was issued on September 10, 2012 (ML12178A537). This amendment provides permanent application of steam generator tube alternate repair criteria, H*.
- 2. Seabrook Station will to address the potential for cracking of the primary to secondary pressure boundary due to PWSCC of tube-to-tubesheet welds using one of the following two options:

Because alternate repair criteria has been permanently applied, no plant-specific AMP or alternative aging management method is required.

- 1) Perform a one-time inspection of a representative sample of tube to tubesheet welds in all steam generators to determine if PWSCC cracking is present and, if cracking is identified, resolve the condition through engineering evaluation justifying continued operation or repair the condition, as appropriate, and establish an ongoing monitoring program to perform routine tube to tubesheet weld inspections for the remaining life of the steam generators, or
- 2) Perform an analytical evaluation showing that the structural integrity of the steam generator tube to tubesheet interface is adequately maintaining the pressure boundary in the pressure of tube-to-tubesheet weld cracking, and or by redefining the pressure boundary in which the tube-to-tubesheet weld is no longer included and, therefore, is not required for reactor coolant pressure boundary function. The redefinition of the reactor coolant pressure boundary must be approved by the NRC as part of a license amendment request.

Based on the above discussion, the following changes have been made to the Seabrook License Renewal Application.

1. In Section A.2.1.10, on page A-10, the second paragraph is revised as follows:

Seabrook Station will address has addressed the potential for cracking of the primary to secondary pressure boundary due to PWSCC of tube-to-tubesheet welds. using one of the following two options: Amendment 131 to the Facility Operating License No. NPF-86 for Seabrook Station, Unit No. 1 was issued on September 10, 2012 (ML12178A537). This amendment provides permanent application of steam generator tube alternate repair criteria, H*.

- 1) Perform a one-time inspection of a representative sample of tube to tubesheet welds in all steam generators to determine if PWSCC-cracking is present and, if cracking is identified, resolve the condition through engineering evaluation justifying continued operation or repair the condition, as appropriate, and establish an ongoing monitoring program to perform routine tube to tubesheet weld inspections for the remaining life of the steam generators, or
- 2) Perform an analytical evaluation showing that the structural integrity of the steam generator tube to tubesheet interface is adequately maintaining the pressure boundary in the pressure of tube to tubesheet weld cracking, or by redefining the pressure boundary in which the tube to tubesheet weld is no longer included and, therefore, is not required for reactor coolant pressure boundary function. The redefinition of the rector coolant pressure boundary function. The redefinition of the requirest. Option 1 or 2 will be completed at least 24 months prior to entering the period of extended operation.
- 2. In Section A.3, License Renewal Commitment #54 has been revised to designate this action as complete (see Enclosure 3).
- 3. In Section B.2.1.10, on page B-64, the enhancement previously added under SBK-L-12123, (Reference 3) has been deleted as follows:

1. In Section B.2.1.10, on page B-64, the following Enhancement has been added: Seabrook Station will address the potential for cracking of the primary to secondary pressure boundary due to PWSCC of tube-to-tubesheet welds using one of the following two options:

- 1) Perform a one-time inspection of a representative sample of tube to tubesheet welds in all-steam generators to determine if PWSCC cracking is present and, if cracking is identified, resolve the condition through engineering evaluation justifying continued operation or repair the condition, as appropriate, and establish an ongoing monitoring program to perform routine tube-to-tubesheet weld inspections for the remaining life of the steam generators, or
- 2) Perform an analytical evaluation showing that the structural integrity of the steam generator tube to tubesheet interface is adequately maintaining the pressure boundary in the presence of tube-to-tubesheet weld cracking, or by redefining the pressure boundary in which the tube-to-tubesheet weld is no longer included and, therefore, is not required for reactor coolant pressure boundary function. The redefinition of the rector coolant pressure boundary must be approved by the NRC as part of a license amendment request.

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Option 1 or 2 will be completed at least 24 months prior to entering the period of extended operation.

Program Elements Affected: Element 4 (Detection of Aging Effects).

Enclosure 2 to SBK-L-12258

Clarification of Response to RAI B.1.4-4 c)

In NextEra Energy Seabrook, LLC letter SBK-L-12183 (Reference 6), NextEra responded to NRC requests for additional information related to operating experience. During a telephone conference with the NRC on December 4, 2012, additional information was requested pertaining to the response to RAI B.1.4-4 c), as to the responsibilities of the License Renewal Engineer, and sharing site operating experience with the rest of the nuclear industry. The response to RAI B.1.4-4 c) is modified as follows:

RAI B.1.4-4 c) Request

Describe guidelines that specifically address reporting of operating experience on age-related degradation and aging management to the industry. In addition, revise the UFSAR supplement to address reporting of plant-specific operating experience related to aging to the industry.

Additional Response Information:

A recent revision to the NextEra procedure for operating experience program screening and responding to incoming operating experience incorporates the guidance of LR-ISG-2011-05 and includes a License Renewal Engineer in the composition of the site operating experience screening team, further assuring age-related degradation and aging management operating experience will be properly reported to the industry.

NextEra Seabrook utilizes the INPO Consolidated Event System (ICES) for sharing of Operating Experience (OE) and lessons learned internally and with other utilities. Reporting is facilitated by a Site OE Coordinator. Involvement of a subject matter expert, such as the License Renewal Engineer, ensures accurate information is entered into the ICES Record and reported to the industry.

The duties of the License Renewal Engineer include the following:

- 1. Prepares and administers the site's license renewal program and implementation project plan following issuance of the Renewed License(s).
- 2. Monitors the status and implementation of site license renewal commitments, on a continuing basis.
- 3. Ensures Engineering management is informed of program and/or license renewal commitment compliance issues.
- 4. Provides 10 CFR 54.37(b) input to the UFSAR update, including the coordination of processing newly identified SSCs.
- 5. Maintains cognizance of related industry working groups such as the NEI License Renewal Implementation Working Group.
- 6. Evaluates new NRC regulatory guidance that may impact implementation activities, such as regulatory guides, Frequently Asked Questions (FAQs), Interim Staff Guidance (ISG), etc.
- 7. Reviews applicable Q List (engineering data base) revisions.
- 8. Assisting in the development of initial and continuing program owner training materials.
- 9. Reviews ARs (Action-Requests) and operating experience for age-related failures or significant degradation of in-scope SSCs, or failures of aging management programs to prevent failures and degradation and initiates changes to site-specific AMPs as appropriate.

10. Performs aging management reviews/assessments, including extent of condition for agerelated failures/degradation of in-scope SSCs or AMPs.

The duties of the Site OE Coordinator include the following:

- 1. Serves as the plant expert on in-house and industry operating experience programs and serves as the site advocate for the use of operating experience and associated tools, such as the INPO Web site.
- 2. Acts as the Site OE Champion to ensure effective screening, assignment, disposition, and processing of incoming OE.
- 3. Performs ICES (INPO Consolidated Event System) data entry or provides input/updates to the Site ICES Coordinator, as required.
- 4. Supports ICES Coordinator with presentations or updates to the Station MRC (Management Review Committee) regarding ICES entries and status, as needed.
- 5. Shares lessons learned with other utilities and NextEra sites and promotes industry-wide safety and reliability, the OE Coordinator:
 - A. Monitors the condition reporting system to identify potential events that need to be reported to the industry via INPO.
 - B. Administers the process for identification of internal OE and distributes to other NextEra sites.
 - C. Ensures accurate and timely information sharing with the INPO Events Analysis Screener.
 - **D.** Monitors the disposition of OE distributed to facility organizations for evaluation and action, as appropriate.
- 6. Ensures that periodic station OE Program effectiveness reviews and self-assessments are performed in accordance with this procedure.
- 7. Assists plant personnel in performing searches or preparing reports using ICES data.

Enclosure 3 to SBK-L-12258

LRA Appendix A - Final Safety Report Supplement Table A.3, License Renewal Commitment List Updated to Reflect Completion Status Changes

	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
1.	PWR Vessel Internals	An inspection plan for Reactor Vessel Internals will be submitted for NRC review and approval.	A.2.1.7	Program to be implemented prior to the period of extended operation. Inspection plan to be submitted to NRC not later than 2 years after receipt of the renewed license or not less than 24 months prior to the period of extended operation, whichever comes first.
2.	Closed-Cycle Cooling Water	Enhance the program to include visual inspection for cracking, loss of material and fouling when the in-scope systems are opened for maintenance.	A.2.1.12	Prior to the period of extended operation
3.	Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems	Enhance the program to monitor general corrosion on the crane and trolley structural components and the effects of wear on the rails in the rail system.	A.2.1.13	Prior to the period of extended operation
4.	Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems	Enhance the program to list additional cranes for monitoring.	A.2.1.13	Prior to the period of extended operation
5.	Compressed Air Monitoring	Enhance the program to include an annual air quality test requirement for the Diesel Generator compressed air sub system.	A.2.1.14	Prior to the period of extended operation
6.	Fire Protection	Enhance the program to perform visual inspection of penetration seals by a fire protection qualified inspector.	A.2.1.15	Prior to the period of extended operation.
7.	Fire Protection	Enhance the program to add inspection requirements such as spalling, and loss of material caused by freeze-thaw, chemical attack, and reaction with aggregates by qualified inspector.	A.2.1.15	Prior to the period of extended operation.

A.3 LICENSE RENEWAL COMMITMENT LIST

-	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
8.	Fire Protection	Enhance the program to include the performance of visual inspection of fire-rated doors by a fire protection qualified inspector.	A.2.1.15	Prior to the period of extended operation.
9,	Fire Water System	Enhance the program to include NFPA 25 guidance for "where sprinklers have been in place for 50 years, they shall be replaced or representative samples from one or more sample areas shall be submitted to a recognized testing laboratory for field service testing".	A.2.1.16	Prior to the period of extended operation.
10.	Fire Water System	Enhance the program to include the performance of periodic flow testing of the fire water system in accordance with the guidance of NFPA 25.	A.2.1.16	Prior to the period of extended operation.
11.	Fire Water System	Enhance the program to include the performance of periodic visual or volumetric inspection of the internal surface of the fire protection system upon each entry to the system for routine or corrective maintenance. These inspections will be documented and trended to determine if a representative number of inspections have been performed prior to the period of extended operation. If a representative number of inspections have not been performed prior to the period of extended operation, focused inspections will be conducted. These inspections will be performed within ten years prior to the period of extended operation.	A.2.1.16	Within ten years prior to the period of extended operation.
12.	Aboveground Steel Tanks	Enhance the program to include components and aging effects required by the Aboveground Steel Tanks.	A.2.1.17	Prior to the period of extended operation.
13.	Aboveground Steel Tanks	Enhance the program to include an ultrasonic inspection and evaluation of the internal bottom surface of the two Fire Protection Water Storage Tanks.	A.2.1.17	Within ten years prior to the period of extended operation.
14.	Fuel Oil Chemistry	Enhance program to add requirements to 1) sample and analyze new fuel deliveries for biodiesel prior to offloading to the Auxiliary Boiler fuel oil storage tank and 2) periodically sample stored fuel in the Auxiliary Boiler fuel oil storage tank.	A.2.1.18	Prior to the period of extended operation.

	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
15.	Fuel Oil Chemistry	Enhance the program to add requirements to check for the presence of water in the Auxiliary Boiler fuel oil storage tank at least once per quarter and to remove water as necessary.	A.2.1.18	Prior to the period of extended operation.
16.	Fuel Oil Chemistry	Enhance the program to require draining, cleaning and inspection of the diesel fire pump fuel oil day tanks on a frequency of at least once every ten years.	A.2.1.18	Prior to the period of extended operation.
17.	Fuel Oil Chemistry	Enhance the program to require ultrasonic thickness measurement of the tank bottom during the 10-year draining, cleaning and inspection of the Diesel Generator fuel oil storage tanks, Diesel Generator fuel oil day tanks, diesel fire pump fuel oil day tanks and auxiliary boiler fuel oil storage tank.	A.2.1.18	Prior to the period of extended operation.
18.	Reactor Vessel Surveillance	Enhance the program to specify that all pulled and tested capsules, unless discarded before August 31, 2000, are placed in storage.	A.2.1.19	Prior to the period of extended operation.
19.	Reactor Vessel Surveillance	Enhance the program to specify that if plant operations exceed the limitations or bounds defined by the Reactor Vessel Surveillance Program, such as operating at a lower cold leg temperature or higher fluence, the impact of plant operation changes on the extent of Reactor Vessel embrittlement will be evaluated and the NRC will be notified.	A.2.1.19	Prior to the period of extended operation.
20.	Reactor Vessel Surveillance	Enhance the program as necessary to ensure the appropriate withdrawal schedule for capsules remaining in the vessel such that one capsule will be withdrawn at an outage in which the capsule receives a neutron fluence that meets the schedule requirements of 10 CFR 50 Appendix H and ASTM E185-82 and that bounds the 60-year fluence, and the remaining capsule(s) will be removed from the vessel unless determined to provide meaningful metallurgical data.	A.2.1.19	Prior to the period of extended operation.
21.	Reactor Vessel Surveillance	Enhance the program to ensure that any capsule removed, without the intent to test it, is stored in a manner which maintains it in a condition which would permit its future use, including during the period of extended operation.	A.2.1.19	Prior to the period of extended operation.

	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
22.	One-Time Inspection	Implement the One Time Inspection Program.	A.2.1.20	Within ten years prior to the period of extended operation.
23.	Selective Leaching of Materials	Implement the Selective Leaching of Materials Program. The program will include a one-time inspection of selected components where selective leaching has not been identified and periodic inspections of selected components where selective leaching has been identified.	A.2.1.21	Within five years prior to the period of extended operation.
24.	Buried Piping And Tanks Inspection	Implement the Buried Piping And Tanks Inspection Program.	A.2.1.22	Within ten years prior to entering the period of extended operation
25.	One-Time Inspection of ASME Code Class 1 Small Bore-Piping	Implement the One-Time Inspection of ASME Code Class 1 Small Bore-Piping Program.	A.2.1.23	Within ten years prior to the period of extended operation.
26.	External Surfaces Monitoring	Enhance the program to specifically address the scope of the program, relevant degradation mechanisms and effects of interest, the refueling outage inspection frequency, the inspections of opportunity for possible corrosion under insulation, the training requirements for inspectors and the required periodic reviews to determine program effectiveness.	A.2.1.24	Prior to the period of extended operation.
27.	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components	Implement the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program.	A.2.1.25	Prior to the period of extended operation.
28.	Lubricating Oil Analysis	Enhance the program to add required equipment, lube oil analysis required, sampling frequency, and periodic oil changes.	A.2.1.26	Prior to the period of extended operation.
29.	Lubricating Oil Analysis	Enhance the program to sample the oil for the Reactor Coolant pump oil collection tanks.	A.2.1.26	Prior to the period of extended operation.
30.	Lubricating Oil Analysis	Enhance the program to require the performance of a one-time ultrasonic thickness measurement of the lower portion of the Reactor Coolant pump oil collection tanks prior to the period of extended operation.	A.2.1.26	Prior to the period of extended operation.

COMMITMENT	UFSAR LOCATION	SCHEDULE
o include the definition of "Responsible	A.2.1.28	Prior to the period of extended

	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
31.	ASME Section XI, Subsection IWL	Enhance procedure to include the definition of "Responsible Engineer".	A.2.1.28	Prior to the period of extended operation.
32.	Structures Monitoring Program	Enhance procedure to add the aging effects, additional locations, inspection frequency and ultrasonic test requirements.	A.2.1.31	Prior to the period of extended operation.
33.	Structures Monitoring Program	Enhance procedure to include inspection of opportunity when planning excavation work that would expose inaccessible concrete.	A.2.1.31	Prior to the period of extended operation.
34.	Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements	Implement the Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements program.	A.2.1.32	Prior to the period of extended operation.
35.	Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits	Implement the Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits program.	A.2.1.33	Prior to the period of extended operation.
36.	Inaccessible Power Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements	Implement the Inaccessible Power Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements program.	A.2.1.34	Prior to the period of extended operation.
37.	Metal Enclosed Bus	Implement the Metal Enclosed Bus program.	A.2.1.35	Prior to the period of extended operation.
38.	Fuse Holders	Implement the Fuse Holders program.	A.2.1.36	Prior to the period of extended operation.

	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
39.	Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements	Implement the Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements program.	A.2.1.37	Prior to the period of extended operation.
40.	345 KV SF ₆ Bus	Implement the 345 KV SF_6 Bus program.	A.2.2.1	Prior to the period of extended operation.
41.	Metal Fatigue of Reactor Coolant Pressure Boundary	Enhance the program to include additional transients beyond those defined in the Technical Specifications and UFSAR.	A.2.3.1	Prior to the period of extended operation.
42.	Metal Fatigue of Reactor Coolant Pressure Boundary	Enhance the program to implement a software program, to count transients to monitor cumulative usage on selected components.	A.2.3.1	Prior to the period of extended operation.
43.	Pressure – Temperature Limits, including Low Temperature Overpressure Protection Limits	Seabrook Station will submit updates to the P-T curves and LTOP limits to the NRC at the appropriate time to comply with 10 CFR 50 Appendix G.	A.2.4.1.4	The updated analyses will be submitted at the appropriate time to comply with 10 CFR 50 Appendix G, Fracture Toughness Requirements.

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	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
44.	Environmentally-Assisted Fatigue Analyses (TLAA)	 NextEra Seabrook will perform a review of design basis ASME Class 1 component fatigue evaluations to determine whether the NUREG/CR-6260-based components that have been evaluated for the effects of the reactor coolant environment on fatigue usage are the limiting components for the Seabrook plant configuration. If more limiting components are identified, the most limiting component will be evaluated for the effects of the reactor coolant environment on fatigue usage. If the limiting location identified consists of nickel alloy, the environmentally-assisted fatigue calculation for nickel alloy will be performed using the rules of NUREG/CR-6909. (1) Consistent with the Metal Fatigue of Reactor Coolant Pressure Boundary Program Seabrook Station will update the fatigue usage calculations using refined fatigue analyses, if necessary, to determine acceptable CUFs (i.e., less than 1.0) when accounting for the effects of the reactor water environment. This includes applying the appropriate Fen factors to valid CUFs determined from an existing fatigue analysis using an NRC-approved version of the ASME code or NRC-approved alternative (e.g., NRC-approved code case). (2) If acceptable CUFs cannot be demonstrated for all the selected locations, then additional plant-specific locations, if CUF, including environmental effects is greater than 1.0, then Corrective Actions will be initiated, in accordance with the Metal Fatigue of Reactor Coolant Pressure Boundary Program, B.2.3.1. Corrective Actions will include inspection, repair, or replacement of the affected locations before exceeding a CUF of 1.0 or the effects of fatigue will be managed by an inspection program that has been reviewed and approved by the NRC (e.g., periodic non-destructive examination of the affected locations at inspection intervals to be determined by a method accepted by the NRC). 	A.2.4.2.3	At least two years prior to entering the period of extended operation.

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	PROGRAM or TOPIC	COMMITMENT .	UFSAR LOCATION	SCHEDULE
45.	Number Not Used			
46.	Protective Coating Monitoring and Maintenance	Enhance the program by designating and qualifying an Inspector Coordinator and an Inspection Results Evaluator.	A.2.1.38	Prior to the period of extended operation
47.	Protective Coating Monitoring and Maintenance	Enhance the program by including, "Instruments and Equipment needed for inspection may include, but not be limited to, flashlight, spotlights, marker pen, mirror, measuring tape, magnifier, binoculars, camera with or without wide angle lens, and self sealing polyethylene sample bags."	A.2.1.38	Prior to the period of extended operation
48.	Protective Coating Monitoring and Maintenance	Enhance the program to include a review of the previous two monitoring reports.	A.2.1.38	Prior to the period of extended operation
49.	Protective Coating Monitoring and Maintenance	Enhance the program to require that the inspection report is to be evaluated by the responsible evaluation personnel, who is to prepare a summary of findings and recommendations for future surveillance or repair.	A.2.1.38	Prior to the period of extended operation
50.	ASME Section XI, Subsection IWE	Perform UT testing of the containment liner plate in the vicinity of the moisture barrier for loss of material.	A.2.1.27	Within the next two refueling outages, OR15 or OR16, and repeated at intervals of no more than five refueling outages
51.	Number Not Used		·····	· · · · · · · · · · · · · · · · · · ·
52.	ASME Section XI, Subsection IWL	Implement measures to maintain the exterior surface of the Containment Structure, from elevation -30 feet to +20 feet, in a dewatered state.	A.2.1.28	Ongoing By December 31, 2012
53.	Reactor Head Closure Studs	Replace the spare reactor head closure stud(s) manufactured from the bar that has a yield strength > 150 ksi with ones that do not exceed 150 ksi.	A.2.1.3	Prior to the period of extended operation.

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	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
54.	Steam Generator Tube Integrity	NextEra will address the potential for cracking of the primary to secondary pressure boundary due to PWSCC of tube-to- tubesheet welds using one of the following two options: 1) Perform a one-time inspection of a representative sample of tube-to-tubesheet welds in all steam generators to determine if PWSCC cracking is present and, if cracking is identified, resolve the condition through engineering evaluation justifying continued operation or repair the condition, as appropriate, and establish an ongoing monitoring program to perform routine tube-to-tubesheet weld inspections for the remaining life of the steam generators, or 2) Perform an analytical evaluation showing that the structural integrity of the steam generator tube-to-tubesheet interface is adequately maintaining the pressure boundary in the pressure boundary in which the tube-to-tubesheet weld is no longer included and, therefore, is not required for reactor coolant pressure boundary function. The redefinition of the rector coolant pressure boundary must be approved by the NRC as part of a license amendment request.	A.2.1.10	At least 24 months prior to entering the period of extended operation. Complete
55.	Steam Generator Tube Integrity	Seabrook will perform an inspection of each steam generator to assess the condition of the divider plate assembly.	A.2.1.10	Within five years prior to entering the period of extended operation.
56.	Closed-Cycle Cooling Water System	Revise the station program documents to reflect the EPRI Guideline operating ranges and Action Level values for hydrazine and sulfates.	A.2.1.12	Prior to entering the period of extended operation.
57.	Closed-Cycle Cooling Water System	Revise the station program documents to reflect the EPRI Guideline operating ranges and Action Level values for Diesel Generator Cooling Water Jacket pH.	A.2.1.12	Prior to entering the period of extended operation.
58.	Fuel Oil Chemistry	Update Technical Requirement Program 5.1, (Diesel Fuel Oil Testing Program) ASTM standards to ASTM D2709-96 and ASTM D4057-95 required by the GALL XI.M30 Rev 1	A.2.1.18	Prior to the period of extended operation.
59.	Nickel Alloy Nozzles and Penetrations	The Nickel Alloy Aging Nozzles and Penetrations program will implement applicable Bulletins, Generic Letters, and staff accepted industry guidelines.	A.2.2.3	Prior to the period of extended operation.

	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
60.	Buried Piping and Tanks Inspection	Implement the design change replacing the buried Auxiliary Boiler supply piping with a pipe-within-pipe configuration with leak detection capability.	A.2.1.22	Prior to entering the period of extended operation.
61.	Compressed Air Monitoring Program	Replace the flexible hoses associated with the Diesel Generator air compressors on a frequency of every 10 years.	A.2.1.14	Within ten years prior to entering the period of extended operation.
62.	Water Chemistry	Enhance the program to include a statement that sampling frequencies are increased when chemistry action levels are exceeded.	A.2.1.2	Prior to the period of extended operation.
63.	Flow Induced Erosion	Ensure that the quarterly CVCS Charging Pump testing is continued during the PEO. Additionally, add a precaution to the test procedure to state that an increase in the CVCS Charging Pump mini flow above the acceptance criteria may be indicative of erosion of the mini flow orifice as described in LER 50-275/94-023.	N/A	Prior to the period of extended operation
64.	Buried Piping and Tanks Inspection	Soil analysis shall be performed prior to entering the period of extended operation to determine the corrosivity of the soil in the vicinity of non-cathodically protected steel pipe within the scope of this program. If the initial analysis shows the soil to be non-corrosive, this analysis will be re-performed every ten years thereafter.	A.2.1.22	Prior to entering the period of extended operation.
65.	Flux Thimble Tube	Implement measures to ensure that the movable incore detectors are not returned to service during the period of extended operation.	N/A	Prior to entering the period of extended operation
66.	Number Not Used			
67.	Structures Monitoring Program	Perform one shallow core bore in an area that was continuously wetted from borated water to be examined for concrete degradation and also expose rebar to detect any degradation such as loss of material.	A.2.1.31	No later than December 31, 2015
68.	Structures Monitoring Program	Perform sampling at the leakoff collection points for chlorides, sulfates, pH and iron once every three months.	A.2.1.31	Starting January 2014

(ASR) Monitoring Program

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	PROGRAM or TOPIC	COMMITMENT	UFSAR LOCATION	SCHEDULE
69.	Open-Cycle Cooling Water System	Replace the Diesel Generator Heat Exchanger Plastisol PVC lined Service Water piping with piping fabricated from AL6XN material.	A.2.1.11	Prior to the period of extended operation.
70,	Closed-Cycle Cooling Water System	Inspect the piping downstream of CC-V-444 and CC-V-446 to determine whether the loss of material due to cavitation induced erosion has been eliminated or whether this remains an issue in the primary component cooling water system.	A.2.1.12	Within ten years prior to the period of extended operation.
71,	Alkali-Silica Reaction	Implement the Alkali-Silica Reaction (ASR) Monitoring		Prior to entering the period of

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extended operation.