



November 17, 2011

SBK-L-11233
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
Response to Request for Additional Information
NextEra Energy Seabrook License Renewal Application
Request for Additional Information - Set 17

References:

1. NextEra Energy Seabrook, LLC letter SBK-L-10077, "Seabrook Station Application for Renewed Operating License," May 25, 2010. (Accession Number ML101590099)
2. NRC Letter "Request for Additional Information for the Review of the Seabrook Station License Renewal Application," "Request for Additional Information Set 17," November 3, 2011. (Accession Number ML11304A001)
3. NextEra Energy Seabrook, LLC letter SBK-L-11003, "Seabrook Station Response to Request for Additional Information, NextEra Energy Seabrook License Renewal Application Aging Management Programs – Set 5 ", January 13, 2011. (Accession Number (ML110140587)

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, the NRC requested additional information in order to complete its review of the License Renewal Application (LRA). The requests are a follow-up to responses provided in References 3. Enclosure 1 contains NextEra's response to the Set 17 request for additional information and associated changes made to the LRA. For clarity, deleted LRA text is highlighted by strikethroughs and inserted texts highlighted by bold italics. There are no new or revised commitments made in this submittal.

A017
A144
MRR

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.



Paul O. Freeman
Site Vice President

Enclosures:

Enclosure 1- Response to Request for Additional Information Seabrook Station License
Renewal Application Set 17, and Associated LRA Changes

cc:

W.M. Dean,	NRC Region I Administrator
G. E. Miller,	NRC Project Manager, Project Directorate I-2
W. J. Raymond,	NRC Resident Inspector
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I, Paul O. Freeman, 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

17th day of November, 2011

A handwritten signature in cursive script, appearing to read "Paul O. Freeman", written over a horizontal line.

Paul O. Freeman

Site Vice President

A handwritten signature in cursive script, appearing to read "Shuley Sweeney", written over a horizontal line.

Notary Public

Enclosure 1 to SBK-L-11233

**Response to Request for Additional Information
Seabrook Station License Renewal Application
Set 17 and Associated LRA Changes**

Request for Additional Information (RAI) Follow-up B.2.1.30-2:

Background:

In its response to RAI B.2.1.30-2, dated January 13, 2011, the applicant stated that the personnel performing the visual examination of concrete surfaces prior to Integrated Leak Rate Test are not qualified in accordance with IWA-2300. There is no requirement in 10 CFR 50.55a that Appendix J general visual inspection personnel be qualified per IWA-2300. The application further stated that this is a general inspection of the containment surface for any apparent degradation that would cause failure of the Integrated Leak Rate Test.

Issue:

In its response, the applicant did not provide any information about the qualification of the personnel performing the visual examination. In addition, the response did not provide any specific quantitative acceptance criteria for inspection of the containment interior and exterior surfaces. In addition, the staff reviewed the applicant's "complex procedure" as well as procedure EX1803.004, "Containment and Containment Enclosure Surface Inspection," and did not find information about the qualification of the personnel or any quantitative acceptance criteria that will define severe cracks, spalling, popouts, surface voids, or other irregularities.

Request:

Please provide information about the qualification of the personnel performing the general visual inspection of the accessible interior and exterior surfaces of the containment system for structural deterioration which may affect the containment leak-tight integrity conducted prior to each Type A test, and at a periodic interval between the Type A tests. In addition, provide the acceptance criteria used for these inspections.

NextEra Energy Seabrook Response

Seabrook Station has chosen to use 10 CFR Part 50 Appendix J, Option B (Performance-Based Leakage-Test Requirements) for Type A testing. Seabrook Station personnel performing any 10 CFR Part 50 Appendix J Program activities including the general visual inspections are qualified in accordance with the Qualification Guide, Engineering Support Personnel Training Program for Appendix J Engineer.

The leak rate testing requirements (ILRT and LLRTs) of 10 CFR Part 50 Appendix J, Option B, and the Containment Inservice Inspection (ISI) requirements are separate programs both mandated by 10 CFR 50.55a. These programs complement each other in ensuring that the accessible containment and containment enclosure building boundaries are periodically inspected by test or inspection personnel. Any issues that could potentially challenge the leak-tightness and structural integrity of the containment would be noted during these various inspections and entered into the Seabrook Corrective Action Program for evaluation and necessary corrective action.

A comprehensive Containment Inservice Inspection Program was developed for Seabrook Station Class MC and CC components in accordance with the requirements of ASME Code, Section XI, Subsections IWA, IWE and IWL to periodically monitor the condition of the primary containment building. In general, the areas and items subject to examination include the accessible pressure retaining containment surface areas such as structural attachments, penetrations, pressure retaining bolting, seals, gaskets, moisture barriers, and Class MC supports. These examinations are accomplished utilizing methods such as general and detailed visual examinations, and volumetric examinations.

The 10 CFR Part 50, Appendix J, ILRT Type A testing is currently performed during a period of reactor shutdown at a frequency of once per 10 years. The most recent ILRT was successfully performed during Refueling Outage 12 in April 2008 with no corrective actions or follow-up activities. Prior to initiating the ILRT Type A test, a 10 CFR Part 50 Appendix J general visual inspection is conducted of accessible interior and exterior surfaces of the containment and containment enclosure building to uncover any evidence of structural deterioration which may effect either the containment structural integrity or leak tightness. Personnel performing the Type A pretest general visual inspection utilize the Containment and Containment Enclosure Surface Inspection procedure, and are qualified to the Qualification Guide, Engineering Support Personnel Training Program for Appendix J Engineer. The procedure provides qualitative criteria needed to detect structural problems that may affect either the containment structure leakage integrity or the performance of the Type A test.

The Qualification Guide for an Appendix J Engineer includes attributes that are assessed by a qualified mentor (manager/supervisor/subject matter expert). This qualification guide documents the Appendix J Engineer's understanding of the Seabrook Station 10 CFR Part 50 Appendix J Program and procedural requirements, along with applicable industry standards such as NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," and ANSI/ANS 56.8, "Containment System Leakage Testing Requirements".

Each of the three programs, Appendix J, IWE, and IWL has different inspection intervals in accordance with their respective program requirements. Although not explicitly stated in the Containment and Containment Enclosure Surface Inspection procedure, test personnel may take credit for the visual examinations performed by the ASME Code Section XI, Subsection IWE Program, if IWE examinations are performed during the same refueling outage as a scheduled ILRT. IWL inspections are typically performed when the plant is in operation therefore IWL inspections do not typically coincide with IWE examinations and ILRT testing. During refueling outages when an ASME Section XI, Subsection IWE inspection is not scheduled, the most recent IWE and IWL inspection results are reviewed by the Appendix J Engineer prior to performing the ILRT Type A general visual inspection.

NextEra Energy Seabrook has initiated a Procedure Change to the Containment and Containment Enclosure Surface Inspection procedure to clarify the current inspection practices as follows:

1. During refueling outages when Subsection IWE inspections and the ILRT are to be performed, both of the IWE and Appendix J examinations will be performed prior to the ILRT. The Appendix J Engineer will review the results of the most recent Subsection IWL inspections as well as any issues identified from the IWE inspections prior to conducting the Appendix J general visual inspection.

During refueling outages when a Subsection IWE inspection is not performed, and the Appendix J general visual inspection is required, the Appendix J Engineer will review the results of the most recent Subsection IWE and IWL inspections and then perform a separate general visual inspection in accordance with the Containment and Containment Enclosure Surface Inspection procedure.

2. Personnel performing 10 CFR Part 50 Appendix J general visual inspections per the Containment and Containment Enclosure Surface Inspection procedure are qualified in accordance with Qualification Guide, Engineering Support Personnel Training Program for Appendix J Engineer.
3. The Seabrook Station 10 CFR Part 50 Appendix J Program and the containment inservice inspection (ISI) performed in accordance with ASME Code Subsection IWE and IWL requirements are all separate programs mandated by 10 CFR 50.55a. These three distinct programs complement each other in ensuring that the accessible containment and containment enclosure building boundaries are periodically inspected by test or inspection personnel. Any issues that could potentially challenge the leak-tightness and structural integrity of the containment would be noted during these various inspections and entered into the Seabrook Corrective Action Program for evaluation and for any necessary corrective action. These three existing programs provide an aging management program that is effective at detecting degradation of the containment boundary.

Based on the above discussion, the following changes are made to the LRA Appendix B, Section B.2.1.30, page B-161, fifth paragraph:

The Seabrook Station 10 CFR Part 50 Appendix J Program is a containment leak rate monitoring program and does not specify preventive actions. The test requirements of Appendix J provide for periodic verification by tests of the leaktight integrity of the primary reactor containment. The Seabrook Station 10 CFR Part 50 Appendix J Program, ~~in conjunction~~ **together** with the ASME Section XI, Subsection IWE Program (B.2.1.27), and ASME Section XI, Subsection IWL Program (B.2.1.28), provides an aging management program that is effective at detecting degradation of the containment boundary.