



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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February 4, 2011

Mr. Paul Freeman
Site Vice President
c/o Mr. Michael O'Keefe
NextEra Energy Seabrook, LLC
P.O. Box 300
Seabrook, NH 03874

SUBJECT: SCOPING AND SCREENING AUDIT SUMMARY REGARDING THE
SEABROOK STATION LICENSE RENEWAL APPLICATION
(TAC NUMBER ME4028)

Dear Mr. Freeman:

By letter dated May 25, 2010, NextEra Energy Seabrook, LLC, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew the operating license for Seabrook Station, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). On September 23, 2010, the staff completed the on-site audit of the scoping and screening methodology developed to support the license renewal application. The audit report is enclosed.

If you have any questions, please contact me by telephone at 301-415-1427 or by e-mail at richard.plasse@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Plasse".

Richard A. Plasse, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:
As stated

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SCOPING AND SCREENING METHODOLOGY AUDIT TRIP REPORT FOR THE SEABROOK LICENSE RENEWAL APPLICATION

I. Introduction

During the week of September 20-23, 2010, the Division of License Renewal, Engineering Review Branch 2, performed an audit of the NextEra Energy Seabrook, LLC (the applicant) license renewal scoping and screening methodology developed to support the license renewal application (LRA) for Seabrook Station Unit 1 (Seabrook). The audit was performed at the applicant's facility located in the Town of Seabrook, Rockingham County, New Hampshire. The focus of the staff's audit was the applicant's administrative controls governing implementation of the LRA scoping and screening methodology and review of the technical basis for selected scoping and screening results for various plant systems, structures, and components (SSCs). The audit team also reviewed quality attributes for aging management programs (AMPs), quality practices used by the applicant to develop the LRA, and training of personnel that developed the LRA.

The regulatory bases for the audit were Title 10 of the *Code of Federal Regulations* (10 CFR), Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," Revision 1 (SRP-LR). In addition, the applicant developed the LRA in accordance with Nuclear Energy Institute (NEI) 95-10, "Industry Guidelines for Implementing the Requirements of 10 CFR 54 – The License Renewal Rule," Revision 6 (NEI 95-10) which the U.S. Nuclear Regulatory Commission (NRC) has endorsed via Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses," (Regulatory Guide 1.188).

II. Background

10 CFR 54.21, "Contents of Application – Technical Information," requires that each application for license renewal contain an integrated plant assessment (IPA). Furthermore, the IPA must list and identify those structures and components (SCs) subject to an aging management review (AMR) from the SSCs that are included within the scope of license renewal. 10 CFR 54.4(a) identifies the plant SSCs within the scope of license renewal. SSCs within the scope of license renewal are evaluated to determine if they are long-lived and passive equipment and, therefore, subject to an AMR in accordance with 10 CFR 54.21(a)(1).

III. Scoping Methodology

The scoping evaluations for the Seabrook LRA were performed by the applicant's license renewal project personnel. The audit team conducted detailed discussions with the applicant's license renewal project personnel and reviewed documentation pertinent to the scoping process. The audit team assessed whether the scoping methodology outlined in the LRA and associated procedures were appropriately implemented and whether the scoping results were consistent with current licensing basis requirements.

The audit team conducted a sample review of eighty-five components from the applicant's plant equipment database to verify that the selected components were correctly identified in regard to being within the scope of license renewal.

ENCLOSURE

The audit team reviewed the selected components, which included mechanical, electrical and structural components, using the applicant's documents including the Updated Final Safety Analysis Report (UFSAR), equipment database, system information and piping and instrumentation drawings. The audit team did not identify any components that had been inappropriately excluded from the scope of license renewal.

The audit team also reviewed a sample of scoping results for the following systems and structures: diesel generator, plant floor drain system, roof drain system, service water system, spent fuel pool system, and feedwater system.

The audit team determined that the applicant's scoping methodology was generally consistent with the requirements of the Rule for the identification of SSCs that meet the scoping criteria of 10 CFR 54.4(a). However, the audit team determined that additional information was required in order for the staff to complete its review:

- The staff determined that the applicant had identified and evaluated safety-related components located in the turbine building and that the applicant had concluded that nonsafety-related SSCs in the proximity of, or attached to, the safety-related SSCs were not required to be included within the scope of license renewal. The staff requested that the applicant provide an evaluation and a basis for the conclusion.
- The staff determined that the applicant had reviewed nonsafety-related drain lines in the proximity of safety-related SSCs and that the applicant concluded that the drain lines were not required to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). The staff requested that the applicant provide an evaluation and a basis for the conclusion.
- The staff determined that the applicant's license renewal implementing documents state that sump pumps that are located in a sump are not included within the scope of license renewal if there is a cover over the sump preventing the pump from spatially interacting with safety-related equipment. The staff requested that the applicant provide an evaluation and a basis for the conclusion.

IV. Screening Methodology

The audit team reviewed the methodology used by the applicant to determine if mechanical, structural, and electrical components within the scope of license renewal would be subject to an AMR (screening). The applicant provided the audit team with a detailed discussion of the processes used for each discipline and provided administrative documentation that described the screening methodology. The audit team also reviewed the screening results reports for the diesel generator, plant floor drain system, roof drain system, service water system, spent fuel pool system, and feed water system. The audit team noted that the applicant's screening process was performed in accordance with its written requirements and was consistent with the guidance provided in the SRP-LR and NEI 95-10. The audit team determined that the screening methodology was consistent with the requirements of the Rule for the identification of SSCs that meet the screening criteria of 10 CFR 54.21(a)(1).

V. Aging Management Program Quality Assurance Attributes

The audit team reviewed the applicant's AMPs described in Appendix A, "Updated Final Safety Analysis Report Supplement," and Appendix B, "Aging Management Programs," of the LRA for inclusion of the appropriate quality assurance (QA) requirements for elements No. 7 (corrective action), No. 8 (confirmation process), and No. 9 (administrative controls). In addition, the audit team reviewed a sample of the AMP basis documents to ensure that the aging management activities were consistent with Seabrook instructions and with the staff's guidance described in SRP-LR, Section A.2, "Quality Assurance for Aging Management Program (Branch Technical Position IQMB-1)."

Based on the audit team's evaluation, the descriptions and applicability of the AMPs and their associated quality attributes, provided in Appendix A, Section A.1.5, "Quality Assurance Program and Administrative Controls," and Appendix B, Section B.1.3, "Quality Assurance Program and Administrative Controls," of the LRA, were determined to be generally consistent with the staff's position regarding QA for aging management.

VI. Quality Assurance Controls Applied to LRA Development

The staff reviewed the quality controls used by the applicant to ensure that scoping and screening methodologies used to develop the LRA were appropriate and adequately implemented. The applicant applied the following quality control processes during the LRA development:

- used corporate and industry license renewal experience to guide the LRA development
- developed the LRA and performed associated activities using qualified and experienced personnel and assigned document reviewers based on subject matter expertise
- developed the LRA following NRC endorsed guidance, applicable industry standards, and Seabrook instructions and guidelines
- validated the LRA content with source documents by License Renewal Project Leads
- reviewed the LRA by selected industry peers, the Station Operations Review Committee, and Site Licensing Department
- used a controlled and validated license renewal database for scoping and screening
- performed formal surveillance of LRA development activities by the Seabrook Nuclear Oversight Department
- used the corrective actions program to report discrepancies in the equipment database and drawings

The audit team performed a sample review of scoping and screening reports and LRA development guidance, the applicant's documentation of the activities performed to assess the quality of the LRA, and held discussions with the applicant's license renewal personnel. The audit team determined that the applicant's activities provide assurance that LRA development activities were performed consistently with the applicant's license renewal program requirements.

VII. Training for License Renewal Project Personnel

The audit team reviewed the applicant's training process to ensure the guidelines and methodology for the scoping and screening activities were applied in a consistent and appropriate manner. The applicant applied various training approaches, including:

- trained and qualified personnel preparing, verifying, and approving license renewal documents in accordance with documented instructions
- assigned experienced plant personnel, augmented with contracted personnel with license renewal experience, to the License Renewal Project Team
- used orientation, computer based training, activity performance and observation to accomplish training.

On the basis of discussions with the applicant's license renewal personnel responsible for the scoping and screening process, and a review of selected documentation in support of the process, the NRC audit team determined that the applicant's personnel understood the requirements and adequately implemented the scoping and screening methodology established in the applicant's renewal application.

VIII. Final Briefing

A final briefing was held with the applicant on September 23, 2010, to discuss the results of the scoping and screening methodology audit. The audit team identified preliminary areas where additional information would be required to support completion of the staff's LRA review.

IX. Documents Reviewed

1. NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," Revision 1
2. NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54, The License Renewal Rule," Revision 6
3. EDI 30850, "License Renewal Scoping and Screening"
4. TS 2071Q, "License Renewal Project Team Member Qualification Guide"
5. LRSP-01, "License Renewal Scoping Report"
6. LRSP-PST, "Scoping and Screening Report – Primary Structures"
7. LRSP-TUR, "Scoping and Screening Report – Turbine Building"
8. LSRP-MYS, "Scoping and Screening Report – Miscellaneous Yard Structures"
9. LSRP-CNT, "Scoping and Screening Report – Containment Structures"
10. LSRP-WCS, "Scoping and Screening Report – Water Control Structures"

11. LSRP-SUP, "Scoping and Screening Report – Supports"
12. LSRP-MCRA, "Scoping and Screening Report – Miscellaneous Cranes"
13. LSRP-CRA, "Scoping and Screening Report – Fuel Handling and Overhead Cranes"
14. LSRP-BSAS, "Scoping and Screening Report – Buildings and Structures Within License Renewal"
15. LSRP-BSN, "Scoping and Screening Report – Buildings and Structures Not-in-Scope"
16. LRSP-SF, "Scoping and Screening Report – Spent Fuel Pool Cooling"
17. LRSP-SW, "Scoping and Screening Report – Service Water"
18. EDI 30584, "License Renewal Document Control and Retention"
19. LRG-001, "License Renewal Drawing Creation Guideline"
20. LRG-004, "License Renewal Review of Engineering Changes"
21. LRG-007, "License Renewal Application Preparation, Review, and Validation"
22. LRSP-ELEC, "Electrical Systems, Components and Commodities"
23. LRTR-QUAL, "License Renewal Corrective Actions, Confirmation Process, and Administrative Controls"
24. LRTR-ATWS, "Technical Report – Anticipated Transient Without Scram"
25. LRTR-EQ, "Technical Report – Environmental Qualification"
26. LRTR-FP, "Technical Report – Fire Protection"
27. LRTR-PTS, "Technical Report – Pressurized Thermal Shock"
28. LRTR-SBO, "Technical Report – Station Blackout"
29. LRTR-INSUL, "Technical Report – Insulation"
30. LRTR-NSAS, "Technical Report – Non-Safety Affecting Safety"
31. LRA, "Seabrook Station Unit 1, License Renewal Application"
32. ALEX, "Advanced License Extension Process Management" software tool by AATS, Inc.

X. NRC Audit Team Members

Kimberly Green	NRR/DLR
Seung Min	NRR/DLR
Don Britner	NRR/DLR
Jerry Dozier	NRR/DLR
Michael Levine	NRR/DSS
Garry Armstrong	NRR/DSS
Edward Smith	NRR/DSS
Lane Howard	Southwest Research Institute
Bob Brient	Southwest Research Institute
Jim Nickolaus	Pacific Northwest National Laboratory

XI. Applicant Personnel Contacted During Audit

Rick Cliché	NextEra Seabrook
Pete Tutinas	NextEra Seabrook
Ali Kodal	NextEra Seabrook
Ken Chew	NextEra Seabrook
Marty Peters	NextEra Seabrook
Tom Casey	NextEra Seabrook
Ed Carly	NextEra Seabrook
Dinesh Patel	NextEra Seabrook
Nelson McLean	NextEra Seabrook
Don Arp	NextEra Seabrook
Roger Jennings	NextEra Seabrook
Bill Roberts	NextEra Seabrook
Dennis Bemis	NextEra Seabrook

Bob McCormack	NextEra Seabrook
Neil Pietrantonio	NextEra Seabrook
Jessica Comeau	NextEra Seabrook
Paul Willoughby	NextEra Seabrook
Rick Noble	NextEra Seabrook
Fred Polaski	Consultant

February 4, 2011

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Seabrook, NH 03874

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/RA/

Richard A. Plasse, Project Manager
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Office of Nuclear Reactor Regulation

Docket No. 50-443

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As stated

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NAME	SFigueroa	RPlasse	RAuluck	DWrona*	RPlasse
DATE	01/27/2011	02/04/2011	02/03/2011	02/04/2011	02/04/2011

OFFICIAL RECORD COPY

Letter to Paul Freeman from Richard A. Plasse dated, February 04, 2011

SUBJECT: SCOPING AND SCREENING AUDIT SUMMARY REGARDING THE
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