



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 5, 2015

Mr. Dean Curtland, Site Vice President  
c/o Michael Ossing  
Seabrook Station  
NextEra Energy Seabrook, LLC  
P.O. Box 300  
Seabrook, NH 03874

SUBJECT: SEABROOK STATION, UNIT 1 – REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT 14-03, CHANGES TO TECHNICAL SPECIFICATION 3.3.3.1, “RADIATION MONITORING FOR PLANT OPERATIONS” (TAC NO. MF4572)

Dear Mr. Curtland:

By letter dated July 24, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14209A919), as supplemented by two letters dated December 11, 2014 (ADAMS Accession Nos. ML14349A644 and ML14349A646, respectively), NextEra Energy Seabrook, LLC (NextEra or the licensee) submitted a license amendment request (LAR) to change the Technical Specifications (TSs) for Seabrook Station, Unit 1 (Seabrook). The proposed LAR would modify TS 3.3.3.1, “Radiation Monitoring for Plant Operations.”

The U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is required to complete its review. The NRC staff’s request for additional information (RAI) is contained in the enclosure.

A draft of these questions was previously sent to Mr. Mike Ossing of your staff on May 11, 2015 (ADAMS Accession No. ML15147A674), with an opportunity to have a teleconference to ensure that NextEra understood the questions and their regulatory basis, as well as to verify that the information was not previously docketed. A revised draft of these questions was previously sent to Mr. Mike Ossing of your staff on June 1, 2015 (ADAMS Accession No. ML15152A310), with an opportunity to have a teleconference to ensure that NextEra understood the questions and their regulatory basis, as well as to verify that the information was not previously docketed.

On June 3, 2015, a conference call was held to clarify the RAI and Mr. Gary Kilby of your staff agreed that NextEra would respond to the RAI within 30 days of the date of the letter. Please note that if you do not respond to the RAI by the agreed upon date, the NRC staff may reject your amendment under the provisions of 10 CFR, Section 2.108, “Denial of application for failure to supply information.”

D. Curtland

- 2 -

If you have any questions, please contact me at (301) 415-3100.

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Lamb". The signature is fluid and cursive, with a large initial "J" and "L".

John G. Lamb, Senior Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION  
LICENSE AMENDMENT REQUEST 14-03  
CHANGES TO TECHNICAL SPECIFICATION 3.3.3.1,  
“RADIATION MONITORING FOR PLANT OPERATIONS”  
NEXTERA ENERGY SEABROOK, LLC  
SEABROOK STATION, UNIT 1  
DOCKET NUMBER 50-443

1.0 SCOPE

By letter dated July 24, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14209A919), as supplemented by two letters dated December 11, 2014 (ADAMS Accession Nos. ML14349A644 and ML14349A646, respectively), NextEra Energy Seabrook, LLC (NextEra or the licensee) requested a license amendment request (LAR) to change the Technical Specifications (TSs) for Seabrook Station, Unit 1 (Seabrook). The proposed LAR would modify TS 3.3.3.1, “Radiation Monitoring for Plant Operations.”

The U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is required to complete its review.

2.0 REQUEST FOR ADDITIONAL INFORMATION

**ARCB-RAI-3**

NUREG-0800, Standard Review Plan (SRP) 15.0.1, “Radiological Consequence Analyses Using Alternative Source Terms,” dated July 2000 (ADAMS Accession Number ML003734190), states, in part that:

The methodology and assumptions for calculating the radiological consequences should reflect the regulatory positions of RG [Regulatory Guide] -1.183.

Appendix B of RG-1.183, “Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors,” dated July 2000 (ADAMS Accession Number ML003716792), Regulatory Position 1.1 states, in part that:

The number of fuel rods damaged during the accident should be based on a conservative analysis that considers the most limiting case. This analysis should consider parameters such as the weight of the dropped heavy load or the weight of a dropped fuel assembly (plus any attached handling grapples), the height of the drop, and the compression, torsion, and shear stresses on the irradiated fuel rods. Damage to adjacent fuel assemblies, if applicable (e.g., events over the reactor vessel), should be considered.

Enclosure

Updated Final Safety Analysis Report (UFSAR) Section 15.7.4.3 states:

The FHA [fuel handling accident analysis] dose consequence analysis is consistent with the guidance provided in RG 1.183 Appendix B, "Assumptions for Evaluating the Radiological Consequences of a Fuel Handling Accident.

The proposed change to the applicability of TS 3.3.3.1, "Radiation Monitoring for Plant Operations," (i.e. Table 3-6, Functional Units 5.a.1 and 5.a.2) from requiring the operability of the control room air intake radiation monitors from "All" Modes to include "during movement of irradiated fuel" does not address movement of loads other than "irradiated fuel assemblies" over the spent fuel pool. For example, Section 15.7.4.1 of the UFSAR considers dropping new fuel assemblies. Section 15.7.4.1 states that:

Dropping or damaging an assembly [not an irradiated assembly] within the Fuel Storage Building (FSB) is another postulated accident addressed in this analysis.

It is unclear how the proposed revised applicability for Functional Units 5.a.1 and 5.a.2 are derived from the Seabrook FHA analysis and how the FHA analysis bounds Regulatory Guide 1.183, Regulatory Position 1.1. To clarify, how does the FHA analysis determine the most limiting control room dose and how does the FHA analysis show that the limiting control room dose is not the drop of a new fuel assembly or loads<sup>1</sup> other than a recently irradiated fuel assembly assuming no credit<sup>2</sup> for the control room intake monitors? Please provide enough detail (inputs, assumptions and methodology) so that the NRC staff can independently verify the results of the FHA. Alternatively, change the Applicable Modes of TS 3.3.3.1, Table 3.3-6, Functional Units 5.a.1 and 5.a.2 to include "during movement of fuel assemblies and loads<sup>3</sup> over irradiated fuel."

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<sup>1</sup> Loads is consistent with the terminology in the current Seabrook technical specifications (See Technical Specifications 3.8.1.2).

<sup>2</sup> Regulatory Guide 1.183, Regulatory Position 5.1.2 states that credit may be taken for accident mitigation features that are classified as safety-related and are required to be operable by technical specifications. The control room intake monitors are not required to be operable by technical specifications during the movement of new fuel assemblies and other loads and, therefore, would not be credited in the fuel handling accident safety analysis.

<sup>3</sup> Loads not covered under the "Heavy Loads" program.

D. Curtland

- 2 -

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Sincerely,

**/RA/**

John G. Lamb, Senior Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:  
Request for Additional Information

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**ADAMS Accession No: ML15131A338**

**\*via email**

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