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Docket No. 50-443

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Seabrook Station

Response to Second Request for Additional Information Regarding License Amendment 14-03
Changes to Technical Specification 3.3.3.1, Radiation Monitoring for Plant Operations

References:

1. NextEra Energy Seabrook, LLC letter SBK-L-14080, "License Amendment Request 14-03, Changes to Technical Specification 3.3.3.1, Radiation Monitoring for Plant Operations," July 24, 2014 [ML14209A919]
2. NRC letter "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)," October 30, 2014 [ML14276A431]
3. NextEra Energy Seabrook, LLC letter SBK-L-14202, "Response to Request for Additional Information Regarding License Amendment 14-03, Changes to Technical Specification 3.3.3.1, Radiation Monitoring for Plant Operations," December 11, 2014 [ML14349A644]
4. NRC letter "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," June 5, 2015 [ML 15131A338]

In Reference 1 and supplemented by Reference 3, NextEra Energy Seabrook, LLC (NextEra) submitted a license amendment request (LAR) to change the Technical Specifications (TSs) for Seabrook Station. The LAR would modify TS 3.3.3.1, "Radiation Monitoring for Plant

Operations." In Reference 4, the NRC staff requested additional information to complete its review of the LAR.

The enclosure to this letter contains NextEra's response to the request for additional information. As discussed in the enclosure, NextEra is withdrawing the proposed changes to TS 3.3.3.1, Radiation Monitoring for Plant Operations, related to the control room air intake radiation monitors. The attachment to the enclosure provides a revised markup of the TS page with the proposed change eliminated. The revised markup supersedes the corresponding page provided in Reference 2.

The elimination of the proposed change does not alter the conclusion in Reference 1 that the changes do not present a significant hazards consideration.

The Station Operation Review Committee has reviewed this change to LAR 14-03.

No new commitments are included in this letter.

Should you have any questions regarding this letter, please contact Mr. Michael Ossing, Licensing Manager, at (603) 773-7512.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 30, 2015.

Sincerely,

NextEra Energy Seabrook, LLC

A handwritten signature in black ink, appearing to read "Dean Curtland", is written over a horizontal line.

Dean Curtland
Site Vice President

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cc: NRC Region I Administrator
NRC Project Manager
NRC Senior Resident Inspector

Director Homeland Security and Emergency Management
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Response to Request for Additional Information (RAI)

By letter dated July 24, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML 14209A919), as supplemented by two letters dated December 11, 2014 (ADAMS Accession Nos. ML 14349A644 and ML 14349A646, 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.

ARCB2-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.

Updated Final Safety Analysis Report 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 Technical Specification 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 Updated Final Safety Analysis Report considers dropping new fuel assemblies. Section 15.7.4.1 states that:

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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 other than a recently irradiated fuel assembly assuming no credit 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 over irradiated fuel."

Response to ARCB2-RAI-3

NextEra is withdrawing the proposed change that revises the Applicable Modes associated with the control room air intake radiation monitors (Functional Unit 5.a) in Table 3.3-6 of Technical Specification (TS) 3.3.3.1, Radiation Monitoring for Plant Operations.

NextEra proposed establishing an additional condition for operability of the control room air intake radiation monitors to include during movement of irradiated fuel assemblies, which may occur when fuel is moved in the fuel storage building after all fuel has been removed from the reactor vessel (outside the applicability of "All Modes"). The proposed change would have corrected a non-conservative TS by adding a more restrictive requirement necessitating operability of the radiation monitors that does not exist under current TS 3.3.3.1.

The proposed change also would have established consistency with the applicability of TS 3.7.6.1, Control Room Emergency Makeup Air and Filtration System (CREMAFS), which is required to be operable during all modes and during movement of irradiated fuel assemblies. Amendment 119 to the Seabrook TS established the requirement for operability of the CREMAFS during movement of irradiated fuel assemblies after the NRC staff determined that the change to the applicability maintained the current licensing basis and found the change acceptable.

The RAI is based on NRC concerns with previously approved travelers TSTF-51, "Revise Containment Requirements during Handling Irradiated Fuel and Core Alterations;" TSTF-286, "Operations Involving Positive Reactivity Additions;" TSTF-471, "Eliminate Use of Term 'Core Alterations' in Actions and Notes." The NRC staff is concerned that a dropped source, fuel assembly, or component (or any other item allowed to be moved by core alterations) could damage a fuel assembly or

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break, creating a radioactive source term. Additionally, a dropped source, component, or fuel assembly could add reactivity if it is dropped over or in the vicinity of other fuel. If so, the NRC staff may require an analysis to show that the dose consequences of these scenarios are less limiting than the current fuel handling accident.

The NRC staff's concerns with the travelers, which were identified in November 2013, are an unresolved industry issue. Therefore, NextEra is withdrawing the proposed change to the Applicable Modes associated with the control room air intake radiation monitors (Functional Unit 5.a) in Table 3.3-6 of TS 3.3.3.1, Radiation Monitoring for Plant Operations. After the NRC and the industry resolve the concerns with the travelers, NextEra will consider submitting an amendment request to address the non-conservative TS. In the interim, NextEra has administrative controls in effect to ensure that the control room air intake radiation monitors are maintained operable during movement of irradiated fuel assemblies.

Attached to this enclosure is a revised markup of the TS page affected by elimination of this proposed change. The revised markup supersedes the corresponding page provided in Reference 2.

ATTACHMENT

Revised Markup of TS Table 3.3-6

TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

<u>FUNCTIONAL UNIT</u>	<u>CHANNELS TO TRIP/ALARM</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. Containment					
a. Containment Post LOCA Area Monitor	4	2	All	≤ 10 R/h	27
2. Containment Ventilation Isolation	Deleted				
a. On Line Purge Monitor	1	2	1, 2, 3, 4	*	23
b. Manipulator Crane Area Monitor	1	2	6#	**	23
3. Main Steam Line	1/steam line	1/steam line	1, 2, 3, 4	N.A.	27
4. Fuel Storage Pool Areas					
a. Fuel Storage Building Exhaust Monitor	N.A.	1	***	****	25
5. Control Room Isolation					
a. Air Intake-Radiation Level					
1) East Air Intake	1/intake	2/intake	All	****	24
2) West Air Intake	1/intake	2/intake	All	****	24
6. Primary Component Cooling Water					
a. Loop A	1	1	All	≤ 2 x Background	28
b. Loop B	1	1	All	≤ 2 x Background	28

TABLE NOTATIONS

- * ~~Two times background; purge rate will be verified to ensure compliance with ODCM Control C.7.1.1 requirements~~
- ** Two times background or 15 mR/hr, whichever is greater.
- *** With irradiated fuel in the fuel storage pool areas.
- **** Two times background or 100 CPM, whichever is greater.
- # During CORE ALTERATIONS or movements of irradiated fuel within the containment.