



March 26, 2014

10 CFR 50.90

SBK-L-14056

Docket No. 50-443

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

Seabrook Station

Response to Request for Additional Information Regarding License Amendment Request 13-03, Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program

References:

1. NextEra Energy Seabrook, LLC letter SBK-L-13071, "License Amendment Request 13-03, Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program," dated May 28, 2013. (Accession No. ML 13155A002)
2. U.S. Nuclear Regulatory Commission letter, Seabrook Station, Unit 1 – Request for Additional Information for License Amendment Request 13-03, "Application for Technical Specification Change Regarding Risk-Informed Justifications for Relocation of Specific Frequency Requirements to a Licensee-Controlled Program," dated December 11, 2013. (TAC No. MF1958) (Accession No. ML 13338A141)
3. NextEra Energy Seabrook, LLC letter SBK-L-14007, "Response to Request for Additional Information Regarding License Amendment Request 13-03, Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee Controlled Program," dated January 29, 2014. (Accession No. ML 14035A457)
4. U.S. Nuclear Regulatory Commission letter, Seabrook Station, Unit 1 – Request for Additional Information for License Amendment Request 13-03, "Application for Technical Specification Change Regarding Risk-Informed Justifications for Relocation of Specific Frequency Requirements to a Licensee-Controlled Program," dated March 13, 2014. (TAC No. MF1958)(Accession No. ML 14065A264)

A001
NRR

In Reference 1, NextEra Energy Seabrook, LLC (NextEra) submitted a request for an amendment to the Technical Specifications (TS) for Seabrook Station. The proposed amendment would modify Seabrook's TS by relocating specific surveillance frequencies to a licensee-controlled program with implementation of Nuclear Energy Institute (NEI) 04-10, "Risk-Informed Technical Specification Initiative 5B, Risk-Informed Method for Control of Surveillance Frequencies," using the Consolidated Line Item Improvement Process.

In Reference 2, the NRC staff requested additional information in order to complete its review of the license amendment request.

In Reference 3, NextEra provided its response to Reference 2.

In Reference 4, the NRC staff requested additional information in order to complete its review of the license amendment request. The Enclosure to this letter contains NextEra's response to the request for additional information.

This response does not modify the changes to the TS proposed in Reference 1 and does not alter the conclusion in Reference 1 that the changes do not present a significant hazards consideration.

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 March 26, 2014.

Sincerely,



Kevin T. Walsh
Site Vice President
NextEra Energy Seabrook, LLC

Enclosure

cc: NRC Region I Administrator
NRC Project Manager, Project Directorate I-2
NRC Senior Resident Inspector

Director Homeland Security and Emergency Management
New Hampshire Department of Safety
Division of Homeland Security and Emergency Management
Bureau of Emergency Management
33 Hazen Drive
Concord, NH 03305

Mr. John Giarrusso, Jr., Nuclear Preparedness Manager
The Commonwealth of Massachusetts
Emergency Management Agency
400 Worcester Road
Framingham, MA 01702-5399

Enclosure to SBK-L-14056

Response to Request for Additional Information Regarding License Amendment Request 13-03,
Application for Technical Specification Change Regarding Risk-Informed Justifications for the
Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program

Enclosure to SBK-L-14056

Response to Request for Additional Information Regarding License Amendment Request 13-03, Application for Technical Specification Change Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program

Request for Additional Information

NEI 04-10 states, in part, that, “[p]lants implementing TSTF-425 shall evaluate their PRAs [probabilistic risk assessments] in accordance with [Regulatory Guide (RG) 1.200].”

NRC Regulatory Issue Summary 2007-06, “Regulatory Guide 1.200 Implementation,” states, in part, that, “[i]f an implementation period for routine, limited scope risk-informed license applications is needed, the NRC would expect licensees to fully address all scope elements consistent with Revision 2 of RG 1.200 by the end of 2009.”

The response to RAI3, dated January 29, 2014, indicated that the fire and seismic portions of the Seabrook PRA have not been assessed against the PRA Standard referenced in Regulatory Guide 1.200, Revision 2.

As such, please describe, in more detail, how fire and seismic events will be assessed in terms of NEI 04-10 guidance, such as qualitative or bounding risk analyses in Step 10.

NextEra Response

Fire and seismic events will be included in the assessment of risk from surveillance test interval (STI) changes using qualitative or bounding risk analyses in accordance with Step 10 of NEI 04-10, as explained below.

Background

NEI 04-10 states that, “PRA technical adequacy is addressed through NRC Regulatory Guide 1.200, which references the ASME PRA standard, RA-S-2005b, for internal events at power. External events and shutdown risk impact may be considered quantitatively or qualitatively.” It also states that, “RG 1.200 also provides (or will provide) attributes of importance for risk determinations relative to external events, seismic, internal fires, and shutdown.” Thus, NEI 04-10 is currently vague on the specific requirements for PRA capability, as measured by RG 1.200 Rev 01 and RG 1.200 Rev 02 and the PRA Standard endorsed by the two revisions.

Fire and Seismic Risk Assessment

Step 9 of NEI 04-10 asks, “Can STI Be Modeled in PRA?” It states that,

“In this step, the analyst has to decide if the STI can be adequately characterized in the PRA model. The determination pertains to all PRAs, including external events and shutdown, but the initial focus is on the internal events PRA.”

In this step, the term “PRA” is interpreted to mean a PRA compliant with RG1.200 Rev 2. Since the Seabrook PRA includes internal fire risk and seismic risk explicitly, but these models do not fully meet RG1.200 Rev 2, Step 9 will be answered “No” with regard to fire and seismic risk.

Step 10 requires the analyst to “Perform Qualitative or Bounding Risk Analysis” if the STI cannot be modeled in a PRA. These analysis options are discussed below.

Qualitative Analysis

Qualitative analysis will be used only when the SSC is not modeled in the PRA, explicitly or implicitly. Thus, qualitative analysis will not be used for SSCs explicitly modeled in the PRA. Also, it will not be used for SSCs implicitly evaluated in the PRA through operator actions, super components or another aggregated events used in PRAs. The term “evaluated” includes the following considerations:

- Can its failure contribute to an initiating event?
- Is it credited for prevention of core damage or large early release?
- Is it necessary, for another system or structure evaluated in the PRA, to prevent an event or mitigate an event?

PRA personnel knowledgeable in the scope, level of detail, and assumptions of the plant-specific PRA will make the determination regarding whether a qualitative assessment is appropriate. In this case, Step 10a will be used to determine whether qualitative information is sufficient to provide confidence that the net impact of the STI change would be negligible (or zero) from a CDF and LERF perspective.

Bounding Analysis – Fire and Seismic Risk

Specifically for internal fire risk and seismic risk, bounding risk analysis, as described in Step 10b, will be used to evaluate STI changes when the SSC is modeled explicitly or implicitly in the fire and seismic portions of the Seabrook PRA. The bounding analysis can use several approaches:

- If the Δ CDF and Δ LERF values have been demonstrated to be very small from an internal events perspective based on detailed analysis of the impact of the SSC being evaluated for the STI change, and if it is known that the CDF or LERF impact from external events is not specifically sensitive to the SSC being evaluated (by qualitative reasoning), then the detailed internal events evaluations and associated required sensitivity cases (as described in Step 14) can be used to bound the potential impact from external events PRA model contributors.
- If the Δ CDF and Δ LERF values have been demonstrated to be very small from an internal events perspective based on detailed analysis of the impact of the SSC being evaluated for the STI change, and if it is known that the plant CDF and LERF results of the external event PRA are much smaller than the corresponding values for the internal event full power PRA, (that is, less than 10%), then the results of the internal events analysis alone would suffice for the STI consideration.
- If the bounding analysis indicates that the Δ CDF and Δ LERF evaluation is below the $1E-07$ /yr CDF and $1E-08$ /yr LERF limits, then the results of the bounding analysis will be provided to the Independent Decision-making Panel. However, since the bounding analysis shows that the impact of the STI change is negligible, then the impacts of the STI change do not need to be incorporated into the cumulative impacts described in Step 12.

With regard to these bounding analyses, PRA personnel knowledgeable in the scope, level of detail, and assumptions of the plant-specific fire PRA shall make the determinations with respect to fire PRAs. Again, PRA personnel knowledgeable in the scope, level of detail, and assumptions of the plant-specific seismic PRA shall make these determinations.