



March 28, 2016
SBK-L-16044
Docket No. 50-443

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

Seabrook Station

Response to Request for Information
Regarding the Seabrook Flooding Hazards Reevaluation Report

References:

1. NextEra Energy Seabrook Letter SBK-L-15181 to the U.S. Nuclear Regulatory Commission, "Response to NRC 10CFR50.54(f) Request for Information Regarding Near-Term Force Recommendation 2.1-Flooding – Submittal of Flooding Hazards Reevaluation Report," September 25, 2015 (ML15274A210)
2. NRC Letter, "Nuclear Regulatory Commission Plan for the Audit of NextEra Energy Seabrook, LLC's Flood Hazard Reevaluation Report Submittal Relating to the Near-Term Task Force Recommendation 2.1-Flooding for Seabrook Station Unit 1," October 21, 2015 (ML15292A259)
3. NRC email from Anthony Minarik to Victoria Brown, "Seabrook Information Needs," March 17, 2016

Reference 1 provided the Flooding Hazards Reevaluation Report (FHRR) for NextEra Energy Seabrook, LLC. Reference 2 notified NextEra Energy Seabrook of the upcoming audit activities pertaining to NextEra Energy Seabrook's FHRR. In Reference 3, the NRC requested that Seabrook provide additional information related to the Seabrook FHRR review. The NRC requested that Information Needs 1, 2 and 5 be responded to in a docketed response. The enclosure to this letter provides the responses to items 1, 2 and 5.

Information Need number 1 requested higher resolution images of FHRR figures be provided on DVD. The requested figures are within the DVD accompanying this letter. A copy of the DVD was also provided to the Seabrook Project Manager NRR/JLD/JHMB.

This letter makes no new commitments or changes to any existing commitments.

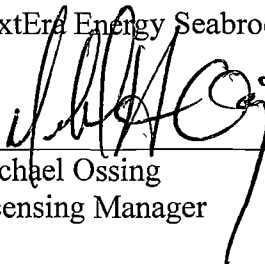
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If you have any questions or require additional information, please contact me at (603) 773-7512.

Sincerely,

NextEra Energy Seabrook, LLC

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

Michael Ossing
Licensing Manager

Enclosure

cc: D. Dorman, NRC Region I Administrator, w/o DVD
J.G. Lamb, NRC Project Manager, Project Directorate 1-2, w/o DVD
P. Cataldo, NRC Senior Resident Inspector, w/o, DVD
A. Minarik, Seabrook Project Manager NRR/JLD/JHMB, w/DVD

Enclosure to SBK-L-16044

Response to Request for Information
Regarding the Seabrook Flooding Hazards Reevaluation Report

Information Need # 1: Figures

Background: Figures contained in the FHRR lack visual clarity.

Requests: Provide (on the docket) standalone, high quality versions of the following figures for use in the NRC Staff Assessment:

- a) FHRR Figure 4-8, *Seabrook Manning's - n*
- b) FHRR Figure 4-12, *Maximum Flow Depths: East*
- c) FHRR Figure 4-13, *Maximum WSEL, East*
- d) FHRR Figure 4-14, *Maximum Flow Depths: West*
- e) FHRR Figure 4-15, *Maximum WSEL, West*
- f) FHRR Figure 4-21, *Example of Difference Time-Distributed Hyetographs*
- g) Figure 5-1 in Section 5.1 of Calculation No. FPL-081-CALC-012

Response:

Electronic files for the requested figures are provided within the DVD accompanying this letter.

Information Need #2: All Flood Causing Mechanisms – Comparison of Reevaluated Flood Hazard with Current Design Basis

Background: Recommendation 2.1 of the 50.54(f) letter provides instructions for the Flood Hazard Reevaluation Report (FHRR). Under Section 1, Hazard Reevaluation Report, Items c and d, licensees are requested to perform:

- c) Comparison of current and reevaluated flood causing mechanisms at the site. Provide an assessment of the current design basis flood elevation to the reevaluated flood elevation for each flood causing mechanism. Include how the findings from Enclosure 4 of this letter (i.e., Recommendation 2.3 flooding walkdowns) support this determination. If the current design basis flood bounds the reevaluated hazard for all flood causing mechanisms, include how this finding was determined.
- d) Interim evaluation and actions taken or planned to address any higher flooding hazards relative to the design basis, prior to completion of the integrated assessment described below, if necessary.

Section 3.0 of the Seabrook FHRR provides a description of the current licensing basis (CLB) for each flood hazard. The FHRR then provides comparisons of the reevaluated flood hazards with the CLB for each flood hazard mechanism.

Request: Clarify and, where necessary, correct the description and/or comparison of the reevaluated flood hazard to the current design basis (CDB).

Response:

The current licensing basis (CLB) flooding information used for comparison in Section 5 is consistent with the current design basis (CDB) for flooding at Seabrook. The comparisons in Section 5 are not affected by the change in terminology and remain valid for a comparison of the FHRR to the CDB.

Information Need #5: Hazard Input to the Integrated Assessment – Flood Event Duration Parameters

Background: The “Mitigating Strategies and Flooding Hazard Reevaluation Action Plan” (COMSECY-15-0019) requests the licensee to perform an additional assessment(s) of the plant’s response to the reevaluated hazard if the reevaluated flood hazard is not bounded by the current design basis. Flood scenario parameters from the flood hazard reevaluation serve as the input to the focused evaluation and additional assessment. To support efficient and effective evaluations, staff will review flood scenario parameters as part of the flood hazard reevaluation and document results of the review as part of the staff assessment of the flood hazard reevaluation. While the FHRR does provide a partial set of flood duration parameters for LIP in FHRR Table 4-3 and for PMF in FHRR Table 4-21, some parameters (e.g., warning time and the period of site preparation) were not evaluated. The licensee is expected to develop flood event duration parameters and applicable flood associated effects to conduct the Mitigating Strategies Assessment consistent with the guidance, but may have some of that information available for evaluation at this time.

Request: If NextEra seeks to have this information reviewed as part of the FHRR review for Seabrook and then referenced during the review of the Mitigating Strategies Assessment, provide the applicable flood event duration parameters (see definition and Figure 6 of the Guidance for Performing an Integrated Assessment, JLD-ISG-2012-05) associated with mechanisms that trigger an additional assessment using the results of the flood hazard reevaluation. This includes (as applicable) the warning time the site will have to prepare for the event (e.g., the time between notification of an impending flood event and arrival of floodwaters on site) and the period of time the site is inundated for the mechanisms that are not bounded by the current design basis. In addition, provide the basis or source of information for the flood event duration, which may include a description of relevant forecasting methods (e.g., products from local, regional, or national weather forecasting centers) and/or timing information derived from the hazard analysis. If the staff does not receive this information as part of the FHRR review, it should be expected to be submitted as part of the Mitigating Strategies Assessment and fully reviewed at that time in its entirety.

Response:

The riverine and dam break flooding mechanisms do not result in site flooding, so event duration and warning time are not needed for these flooding mechanisms. The LIP event does result in site flooding, and duration and warning time will be addressed in the Mitigating Strategies Assessment.