

From: [Poole, Justin](#)
To: [Browne, Kenneth](#); [Thomas, Christine](#)
Cc: [Danna, James](#)
Subject: Request for Additional Information Related to Seabrook License Amendment Request to Degraded Voltage Time Delay Setpoint (L-2020-LLA-0012)
Date: Thursday, April 23, 2020 10:20:00 AM
Attachments: [L-2020-LLA-0012 RAIs.pdf](#)

Ken/Christine,

By letter dated January 24, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20027A239), NextEra Energy Seabrook, LLC (NextEra, the licensee) submitted a license amendment request (LAR) to revise the degraded voltage time delay setpoint for Seabrook Station, Unit No. 1. Specifically, the LAR would decrease the trip setpoint and allowable value for the 4.16 kV Bus 5 and Bus 6 degraded voltage time delays listed in Technical Specifications (TS) Table 3.3-4. In reviewing the submitted information, the U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is necessary to complete its review.

On April 3, 2020, the NRC staff sent NextEra the DRAFT RAIs to ensure that the questions are understandable, the regulatory basis is clear, there is no proprietary information contained in the RAI, and to determine if the information was previously docketed. On April 23, 2020, NextEra notified me, the Project Manager, that no clarifying call was necessary and that a response date of 30 days from the date of this email was acceptable. The attached is the final version of the RAIs. These RAIs will be put in ADAMS as a publicly available document.

Justin C. Poole
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NRR/DORL/LPL I
U.S. Nuclear Regulatory Commission
(301)415-2048

REQUEST FOR ADDITIONAL INFORMATION REGARDING

DEGRADED VOLTAGE TIME DELAY SETPOINT

NEXTERA ENERGY SEABROOK, LLC

SEABROOK STATION, UNIT NO. 1

DOCKET NO. 50-443

By letter dated January 24, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20027A239), NextEra Energy Seabrook, LLC (NextEra, the licensee) submitted a license amendment request (LAR) to revise the degraded voltage time delay setpoint for Seabrook Station, Unit No. 1. Specifically, the LAR would decrease the trip setpoint and allowable value for the 4.16 kV Bus 5 and Bus 6 degraded voltage time delays listed in Technical Specifications (TS) Table 3.3-4.

The NRC staff has identified the need for the following additional information to complete the review of the LAR.

Applicable Regulatory Requirements

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50.36(c)(2) provides the requirement for the establishment of TS limiting conditions for operation (LCO). Specifically, paragraph 50.36(c)(2)(ii) requires that a TS LCO of a nuclear reactor be established for each item meeting one or more of the criteria listed. For this LAR, Criterion 3 is applicable and states: "A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA [Design Basis Accident] or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier."

Request for Additional Information (RAI)

RAI # 1

Page 2 of the LAR Enclosure states, "Engineering Change (EC) 293173 - Replacement TOL Heaters [Thermal Over Load Relays] for Block Start MOVs [Motor Operated Valves], revised TOL heater sizing for the block start MOVs. That EC approves replacing the TOL heaters for the MOVs that operate on an SI [Safety Injection] signal with resized TOL heaters of a larger size."

Provide a detailed summary of the relevant calculation information that determined the resizing of the TOL heaters with a larger size for the MOVs that operate on an SI signal was acceptable.

RAI # 2

Page 4 of the LAR Enclosure states, "In addition, that design change approved replacing the 4.16 kV Bus 5 and 6 degraded voltage time delay relays, and decreasing the setpoint from a nominal 10 seconds (10.96 seconds allowable value) to 6 seconds (6.72 seconds allowable value)."

Provide a detailed summary of the relevant calculation information that determined decreasing the setpoint of the 4.16 kV Bus 5 and 6 degraded voltage time delay relays from a nominal 10 seconds (10.96 seconds allowable value) to 6 seconds (6.72 seconds allowable value) was acceptable.

RAI # 3

Page 6 of the LAR Enclosure states, "By reducing the degraded voltage time delay relay setpoint from nominal 10 seconds to 6 seconds, the valve motors would not be subjected to locked rotor current for greater than 6.91 seconds (6.72 seconds allowable value+ 0.067 second delay for the undervoltage relay + 0.04 second for the emergency power sequencer + 0.083 second breaker interrupting time). Therefore, they would not be damaged following an SI during a degraded voltage condition before they are powered from the diesel generator."

Provide a detailed summary of the relevant calculation information that determined the above time values are acceptable, unless this information is included as a part of the calculation information requested in RAIs # 1, 2 above.