

From: [Poole, Justin](#)
To: [Browne, Kenneth](#); [Mack, Jarrett](#)
Cc: [Danna, James](#); [Haidul W, Meghan](#); [Greene, Joshua](#)
Subject: Request for Additional Information Regarding Seabrook Steam Generator Tube Inspection Report Review (L-2020-LRO-0066)
Date: Wednesday, April 07, 2021 3:32:00 PM
Attachments: [L-2020-LRO-0066 FINAL RAI.pdf](#)

Ken/Jarrett,

By letter dated October 20, 2020 (Agencywide Documents Access and Management System Accession No. ML20295A551), NextEra Energy Seabrook, LLC (the licensee) submitted information summarizing the results of the spring 2020 steam generator (SG) tube inspections performed at Seabrook Station, Unit No. 1 (Seabrook) during refueling outage 20 (OR20). 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 March 24, 2021, the NRC staff sent NextEra the DRAFT RAI to ensure that the question is 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 7, 2021, the NRC and NextEra held a clarifying call. During the call, NextEra requested a response date of 45 days from the date of this email. The NRC staff informed NextEra that this timeframe is acceptable. The attached is the final version of the RAIs. These RAIs will be put in ADAMS as a publicly available document.

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U.S. Nuclear Regulatory Commission
(301)415-2048

REQUEST FOR ADDITIONAL INFORMATION REGARDING
SPRING 2020 STEAM GENERATOR TUBE INSPECTION REPORT

NEXTERA ENERGY SEABROOK, LLC

SEABROOK STATION, UNIT NO. 1

DOCKET NO. 50-443

By letter dated October 20, 2020 (Agencywide Documents Access and Management System Accession No. ML20295A551), NextEra Energy Seabrook, LLC (the licensee) submitted information summarizing the results of the spring 2020 steam generator (SG) tube inspections performed at Seabrook Station, Unit No. 1 (Seabrook) during refueling outage 20 (OR20).

Regulatory Basis

Technical Specification (TS) 6.8.1.7 requires that a report be submitted within 180 days after the initial entry into hot shutdown following SG inspections performed in accordance with TS 6.7.6.k, which requires that an SG program be established and implemented to ensure SG tube integrity is maintained. To complete its evaluation of the information provided by the licensee, the U.S. Nuclear Regulatory Commission staff requests the following information:

Request For Additional Information (RAI)

RAI – 1

Appendix B of the report states that review of the eddy current data from previous inspections identified discernable signals for some of the axial outside diameter stress corrosion cracking (ODSCC) indications detected at dented tube support plate intersections during the OR20 inspection in spring 2020. Cracking at tube geometric changes, such as dents, can be difficult to detect due to the presence of masking signals. The report states that the signals were not identified as flaw signals during the previous inspections. For those axial ODSCC indications at dented tube support plates in OR20 that had discernable signals in previous inspections, please provide the following:

- a. Describe the analysis approach, including techniques and historical data review, that led to the conclusion that cracks were present in the dented locations.
- b. For each crack indication, using the new analysis protocol developed in 2020, identify the inspection in which a flaw signal was first discernable.
- c. Discuss the lessons learned from the 2020 inspections and any actions being taken to increase the probability of detecting similar cracks in future inspections.
- d. Please discuss any insights about relative eddy current probe performance and the importance of supplemental inspections. For example, Table 2 of the report shows ODSCC indications in adjacent tubes (Row 10 Column 121 and Row 11 Column 121) at dents with bobbin probe voltage less than two volts. Both indications were classified as

bobbin probe distorted dent signals and +Point™ single axial indications, but the array probe detected only one of them

RAI – 2

Table 2 shows that the detected cracks had bobbin probe voltages either less than 2 volts or greater than about 9 volts. Please describe how this distribution for crack indications compares to the distribution of all bobbin probe dent voltages (i.e., dents with and without cracks), and whether any correlation was identified between cracking and bobbin probe dent voltage.

RAI – 3

The report identifies volumetric wear indications from tube support plates in SG-C and SG-D that were newly reported in OR20 but had discernable signals in previous inspections according to historical data review. Two of the indications had depths of 23 and 28 percent through-wall when first reported in OR20. Please describe the site reporting requirements for volumetric indications relative to these indications.