



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

April 21, 2020

Ms. Natalie Hildt Treat
C-10 Executive Director
11 Chestnut Street
Amesbury, MA 01913

Dear Ms. Treat:

I am responding to your March 30, 2020, letter to Paul Cataldo, Senior Resident Inspector at Seabrook Station, which included several questions regarding the February 5, 2020, Integrated Inspection Report 05000443/2019004. Specifically, you had questions on the problem identification and resolution (PI&R) sample associated with the recurrent primary component cooling water temperature controller deficiencies, and the PI&R sample associated with the review of alkali-silica reaction (ASR) impact on concrete structures. For background, the function of the primary component cooling system is to remove heat from radioactive and potentially radioactive systems and components during normal and emergency plant evolutions.

On the first issue, consistent with the guidance in Inspection Procedure (IP) 71152, the inspectors reviewed NextEra's troubleshooting and corrective maintenance activities and concluded that the actions the licensee took were appropriate, considering the risk-significance and safety function of the 'B' train primary component coolant water controller. Specifically, the licensee: (1) employed the use of their systematic troubleshooting procedures to ensure the appropriate resources were leveraged to determine the cause of the controller deficiency was identified, and corrective actions to fix the problem were appropriate for the circumstances; (2) utilized appropriate operating experience from other plants that utilize similar controllers, as well as information from the component vendor, to inform the decision-making of the troubleshooting team, as it related to resolution of the identified deficiency; (3) acquired spare controllers from onsite stock, as well as other nuclear sites, to perform bench calibrations, and to replace the affected in-plant component with an appropriately calibrated and operational controller in this safety-related system, and (4) identified long-term corrective actions to determine potential changes, if needed, to the particular model of controller in this and other affected systems, to ensure long-term reliability of critical safety systems at Seabrook Station. The inspectors confirmed the actions the licensee took were in accordance with NextEra's corrective action program and applicable maintenance procedures.

Regarding the inspectors' review of ASR, you asked about the sampling methodology. As you may be aware, the NRC uses a sampling methodology based on risk-significance and site-specific performance, as described in detail in Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program – Operations Phase," dated 1/1/2020. For the ASR PI&R sample referenced in your letter, the inspectors selected those structures where the licensee was still in-progress of performing a structural evaluation to account for ASR. Typically, the inspectors have selected structures with ASR structural evaluations completed since the last ASR PI&R sample, as well as any areas where the licensee had recently identified issues. Over the multi-year performance of these periodic PI&R samples, the inspectors have made a point to directly

observe accessible areas of the plant. During this inspection sample, the inspectors reviewed data from the Seabrook Station Structures Monitoring Program, including the seismic gaps and threshold monitoring limits, and verified that the measurements were within the established acceptance criteria. The inspectors did not note appreciable changes in containment enclosure building deformation.

Additionally, you inquired about the open operability determinations that the inspectors reviewed as part of the ASR PI&R sample. The list of Category I structures in the operability determinations includes the primary auxiliary building, mechanical penetration area, control and diesel generator building, service water cooling tower, and emergency feedwater pumphouse building. These structures are being monitored on an increased frequency at the specific areas identified in the evaluations, until additional analysis is performed, or a structural modification is developed and implemented. It is important to note that most of the structure is in conformance with the design code, except for a few specific areas, which are the focus of the enhanced monitoring. This monitoring is being performed at least every six months, and as frequently as every two months in some cases. The NRC reviewed the operability determinations, structural evaluations, and enhanced monitoring for each of these structures and documented its results in publicly available inspection reports. Please refer to these reports for additional information:

- IR 2018003 (ML18318A009)
- IR 2019002 (ML19217A286)
- IR 2019004 (ML20037B047)

Thank you for your letter, and if you have additional questions or concerns about Seabrook Station, please do not hesitate to contact Paul Cataldo at (610) 337-6920.

Sincerely,

 Brice Bickett

Signed by: NRC-PIV

Brice A. Bickett, Chief,
Division of Reactor Projects Branch 3

SUBJECT: LETTER TO N. HILDT TREAT REGARDING FEBRUARY 5, 2020,
 INTEGRATED INSPECTION REPORT 05000443/2019004
 DATED APRIL 21, 2020

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