

From: [James Kim](#)
To: [Sarah Abramson](#)
Subject: 2.206 Petition Initial Assessment - C-10 Petition on Seabrook ASR Concrete Degradation
Date: Thursday, November 17, 2022 8:16:00 AM

Ms. Abramson,

The Petition Review Board (PRB) has completed its initial assessment of the petition you submitted on October 4, 2022. Your petition requested that the U.S. Nuclear Regulatory Commission (NRC) take action under Title 10 of the Code of Federal Regulations (10 CFR), Section 2.206 by issuing an order to NextEra Energy Seabrook, LLC to hasten compliance with terms and conditions documented in Seabrook Station, Unit No. 1 (Seabrook) Operating License Amendment No. 159. Your rationale for requesting this action is your assertion that the NextEra monitoring of the Seabrook safety-related concrete structures' Alkali-Silica Reaction (ASR) is not adequate to support the protection of public health and safety. The bases provided in your request point to the findings in NRC-issued inspection reports, dating back to 2021, for which you document the following concerns:

1. ...it is not clear that NextEra is following the established protocols and therefore it is not clear that the risks to public health and safety are being adequately and legally managed at this time.
2. Thus far, the NRC has assessed NextEra's non-compliances with concrete degradation regulatory requirements as having little safety significance.... The NRC's assessment – however valid it may be for the specific non-compliances – lacks relevance for protection of public health and safety into the future... C-10 is not patient enough to wait for a safety-related structure to collapse and for NRC to issue a greater-than-green finding to NextEra for its failures to comply with ASR-related regulatory requirements.
3. ...a determination that ASR has not compromised necessary safety margins for concrete structures today may not bound conditions throughout the period of extended operation.
4. Had the NRC inspected and examined every aspect of the ASR-related regulatory requirements imposed by the license amendment issued March 11, 2019, then the few findings of non-compliance would provide meaningful insights into concrete degradation at Seabrook. The NRC's findings from the small subset of ASR-related requirements it has examined indicate that NextEra has not complied with its legal obligations, with the clear implication that non-compliances among the many areas not examined by the NRC.... Of the only two ASR-related samples examined by the NRC so far in 2022, non-compliances were identified 100 percent of the time. There is absolutely no evidence of fact suggesting, yet alone proving, that these non-compliances are the worst examples of the adverse consequences from NextEra not complying with ASR-related regulatory requirements.
5. The [Reactor Oversight Process] alone does not ensure that NextEra's efforts to achieve and sustain compliance with ASR-related regulatory requirements will be sufficiently timely and effective. Recent actions taken by NRC outside of the ROP strongly suggest that the Order sought by C-10 is consistent with these actions: ...

The ROP by itself provided the NRC with insufficient means of ensuring the identified shortcomings were corrected in a timely and effective manner. Consequently, the NRC supplemented its ROP efforts with plant-specific actions tailored to restore compliance with regulatory requirements....

The PRB performed its initial assessment to determine whether the petition meets the applicable acceptance criteria in NRC's Management Directive MD 8.11, "Review Process for 10 CFR 2.206 Petitions," and its associated DH 8.11, Section III.C.1 (Agencywide Documents Access and Management System (ADAMS) Accession number [ML18296A043](#)).

The PRB's initial assessment is that the information provided related to the Seabrook ASR does not meet the DH 8.11 acceptance criteria in Section III.C.1(a), specifically "...The supporting facts must be sufficient to warrant further inquiry." Our initial assessment is to not accept your petition for review. The information provided in your petition came primarily from previous NRC inspection reports and NextEra submittals, which has already been considered by NRC Staff as part of our existing processes. Therefore, the additional information contained in your petition does not warrant further NRC Staff review.

The primary safety concerns in your petition relate to the current state of non-compliance of ASR affected safety structures and the timeliness of any remedial action taken by NextEra to restore compliance. The PRB is providing the following to address your concerns and document our initial assessment:

1. As an appropriate response to the NRC's oversight findings, the licensee has already entered the findings from the NRC inspections into its Corrective Action Program, and corrective actions are in progress to achieve compliance.
2. The significance determination process used by the NRC staff in assessing the safety significance of the Seabrook inspection findings is consistent with the NRC's inspection and enforcement policy and guidance, which are consistent or aligned with the agency's mission to provide reasonable assurance of adequate protection of public health and safety. The NRC would proceed with appropriate additional enforcement action if the licensee is not able to provide an adequate demonstration that a non-conforming structure or component remains capable of performing its function. Furthermore, the affected structures at Seabrook are, and will continue to be, monitored and managed in a manner that provides reasonable assurance that they remain capable of performing their functions and there is no concern of an immediate catastrophic failure to the structures based on the current information and slow progression of the ASR.
3. As extensively discussed during the Atomic Safety and Licensing Board hearing conducted in September 2019 (Transcript: ML19312B609) subsequent to the issuance of Seabrook License Amendment No. 159, the licensee's methodology for monitoring and managing ASR at the site is not a predictive approach through the

end of the period of extended operation, but rather a periodic condition monitoring approach of structure-specific threshold monitoring parameters. Results of the monitoring are evaluated using the approved methodology and findings, or non-conformances, if any, are addressed in the licensee's corrective action program in a manner that provides reasonable assurance that the affected structures or components remain capable of performing their intended functions.

4. The NRC's inspection samples under the ROP since 2020 have covered the majority of the ASR-affected, safety-related structures at the site for which evaluations in accordance with Seabrook License Amendment No.159 methodology were completed. Observed findings, if any, have been documented in the corresponding inspection reports. NRC inspection findings are followed up in subsequent inspections under the ROP to ensure adequate resolution. Failure of the licensee to achieve conformance could result in additional enforcement action, if appropriate, commensurate with the safety significance.
5. The four precedent examples, cited by C-10, of past escalated enforcement actions taken by the NRC in the form of Confirmatory Orders resulted from the Reactor Oversight Process or the Allegations Process, and three of the examples involved willful or deliberate wrongdoing by the licensee. These Confirmatory Orders were a direct result of existing NRC processes (the ROP or Allegations Process). Therefore, C-10's claim that the ROP alone does not provide the NRC with sufficient means of ensuring the identified shortcomings are corrected in a timely and effective manner, appears to be a misunderstanding of the ROP process.

The goal of the ROP is to establish confidence that each licensee is effectively detecting, correcting, and preventing problems which could impact cornerstone objectives. Seabrook's corrective action program and implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems commensurate with their safety significance is in compliance with NRC regulations and is consistent with licensee standards. We have confidence that the routine inspections and monitoring programs that are currently in place are identifying issues that have, in some cases, warranted additional actions and been followed up with as part of the ROP process, as mentioned in your petition. Based on our ongoing assessment, the NRC determines the appropriate level of agency response, including supplemental inspection and pertinent regulatory actions ranging from management meetings up to and including orders for plant shutdown. Please see the link below for a detailed overview of the ROP:

<https://www.nrc.gov/reactors/operating/oversight/rop-description.html>

Problem identification and resolution (PI&R) programs and activities ensure Seabrook appropriately identifies, evaluates, prioritizes, and resolves performance issues that are reviewed in four locations within the baseline inspection program: routine reviews; semiannual trend reviews; follow-up of selected issues; and biennial team inspections. The onsite biennial team inspection will be starting in November 2022 and is an additional in depth look at Seabrook corrective action program. In addition, an ASR specific inspection is planned for early 2023.

I am happy to offer you the opportunity to clarify or supplement your petition in a virtual public meeting with the PRB. If you decide to take advantage of this opportunity, the meeting with the PRB would be conducted consistent with the format described in MD 8.11 Section III.F. The PRB will consider your statements and information presented at the meeting, along with the original petition, in making its final determination on whether to accept your petition for review. Please indicate by November 30, 2022, whether you wish to have this public meeting before we close the petition.

If you have any questions regarding this e-mail, please feel free to contact me at James.Kim@nrc.gov.

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