



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 27, 2015

Ms. Anne R. Ferguson
Councilor at Large
Amesbury City Councilor
City Hall, Office of the City Clerk
62 Friend Street
Amesbury, MA 01913

Dear Ms. Ferguson:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of October 23, 2015, to NRC Chairman Stephen G. Burns.

Your letter requested the withdrawal of the operating license for the Seabrook Station (Seabrook) for the following three reasons: (1) concrete degradation in the plant foundation and safety-related concrete structures, (2) the perceived inability to conduct a safe, timely evacuation of the residents in the area in the event an incident leading to a radiological release occurs at Seabrook, and (3) the ability of the NRC to conduct adequate oversight of alkali-silica reaction (ASR) and other issues.

First, I would like to provide you an update on NRC staff activities regarding the oversight of Seabrook and the license renewal application review, as it relates to the ASR issue, and reassure you of our diligence in ensuring that Seabrook meets our safety requirements. We are aware of the concerns of local citizens and representatives with regard to the ASR issue. As a result, we have had numerous discussions and briefings with a number of State and Congressional officials from New Hampshire and Massachusetts, as well as members of the public over the past few years. A comprehensive list of our actions and correspondence in this matter is posted on our website at: <http://www.nrc.gov/reactors/operating/ops-experience/concrete-degradation.html>.

The NRC continues to carefully and deliberately monitor, assess, and inspect NextEra Energy's (NextEra) ongoing actions to resolve the ASR issue. When technical issues were identified in the current condition of concrete structures, our inspectors raised those concerns to NextEra and documented their findings in our publicly available inspection reports. To date, our reviews of NextEra engineering evaluations have determined that there are no immediate safety concerns and that ASR-affected structures at Seabrook remain capable of performing their intended safety functions. These reviews are documented in references noted in the NRC website link above. The NRC continues to perform inspections approximately every 6 months to review NextEra's activities to address the effect of ASR on Seabrook's concrete structures. This interval is reasonable for protection of public health and safety, given the very slow progression of ASR.

As part of our license renewal review process and our oversight of Seabrook operation under its current license, the NRC will ensure that the Seabrook structures monitoring program properly assesses the condition of structures affected by ASR to ensure they will continue to perform as intended. NextEra's methods and/or monitoring techniques include a combination of periodic examinations and crack measurement and trending of structures affected by ASR, core samples of key concrete structures, through-wall expansion measurements using strain gauges, and monitoring of components that pass between ASR-affected structures. These efforts are directed toward ensuring that the affected safety-related concrete structures at Seabrook will remain capable of performing their intended functions for the entire license period, including the period of extended operation if the license is renewed.

NextEra's large-scale testing being conducted at the University of Texas at Austin is intended to quantify the effect of different levels of ASR on the structural performance of ASR-affected reinforced concrete structures that do not have through-wall reinforcement, similar to that in the majority of the affected walls in safety-related structures at Seabrook. The NRC has visited the testing site several times to verify appropriate quality assurance test standards were being implemented and to ensure test results have not impacted our conclusions on current plant safety. Should NextEra elect to use the results of the large-scale testing to resolve the ASR operable but degraded condition, the testing methodology and results, and the method(s) of evaluation used will be subject to NRC review, pursuant to applicable regulatory processes. NextEra will need to clearly establish that the results of its large-scale test program are representative of actual conditions at Seabrook, and formally submit the results of its evaluations to the NRC in accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Sections 50.59 and 50.90, as applicable, to resolve the ASR non-conforming condition.

The NRC staff's review of Seabrook's license renewal application is continuing, and no regulatory decision has been made on the application. The original safety review schedule has been revised several times to allow a thorough review of the applicant's proposed plant-specific ASR monitoring program and to add a second meeting with the independent Advisory Committee on Reactor Safeguards (ACRS) License Renewal Subcommittee. The ACRS review will provide an independent assessment of the ASR technical issues and the NRC staff's evaluation of the matter.

Secondly, the NRC works in partnership with the Federal Emergency Management Agency (FEMA) to ensure the onsite and offsite emergency plans are adequate. The regulation of onsite emergency response falls within the NRC's purview, while the offsite oversight responsibility rests with FEMA. The NRC relies on FEMA to provide a reasonable assurance finding that the offsite emergency response programs are adequate for protecting the public health and safety. The Commonwealth of Massachusetts and the State of New Hampshire have the overall authority for making protective action decisions (sheltering, evacuation, administering potassium iodide, etc.) for ensuring the safety of the public if a radiological event were to occur. The NRC has determined that a 10-mile radius emergency planning zone (EPZ) for emergency planning efforts is of sufficient size to provide for substantial reduction in radiological doses to the public, due to the most severe postulated accidents. However, emergency planning decision-makers will take protective measures beyond the 10-mile EPZ if deemed necessary.

To date, FEMA has provided the NRC a determination of reasonable assurance for both the State of New Hampshire and the Commonwealth of Massachusetts for implementing its emergency response plans and programs. The most recent emergency drill report for Seabrook is publicly available in the NRC Document Control System (Agencywide Documents Access and Management System Accession No. ML15034A368). The results of prior drills published by FEMA are publicly available on the NRC's website at: <http://www.nrc.gov/about-nrc/emerg-preparedness/related-information/fema-after-action-reports.html>. Since FEMA has offsite emergency planning responsibility, we suggest you contact the FEMA office that is responsible for Seabrook's emergency plan to discuss your specific concerns: FEMA Region I, 99 High St., Boston, MA 02110 (1-877-336-2734).

Based on the above, the NRC does not have a current safety and/or legal basis to withdraw the operating license for Seabrook. Please note that Title 10 of the *Code of Federal Regulations* (10 CFR), Section 2.206 describes the NRC's public petition process. This process permits anyone to petition the NRC to take an enforcement type action related to NRC licensees or licensed activities. Additional information regarding the 10 CFR 2.206 process is available on the NRC website. Although your letter did not cite the 10 CFR 2.206 process, it did request an enforcement action regarding Seabrook (i.e., withdrawal of the operating license). As such, please contact John G. Lamb of my staff at (301) 415-3100 if you want your letter processed pursuant to 10 CFR 2.206, or if you have any further concerns on this matter.

The NRC staff will hold the Seabrook 2016 annual assessment meeting within a 10-mile radius of Seabrook, since the people in that area are most interested in, and affected by, the safe operation of the facility. Typically, the location in Hampton, NH, has been chosen as an effective site for past events. As the facility is a short drive up Route 1 and I-95 from Amesbury, we do not see the location as an impediment to attendance by residents in Amesbury.

Sincerely,



Anne T. Boland, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

cc: Distribution via Listserv

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Sincerely,
 /RA/
 Anne T. Boland, Director
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 Office of Nuclear Reactor Regulation

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