



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

October 8, 2015

Mr. Freeman Condon
Chairman, Salisbury Board of Selectman
6 Forrest Road
Salisbury, MA 01952

Dear Chairman Condon:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of September 9, 2015, to Chairman Stephen Burns. Your letter requested that Seabrook Station be closed for several reasons, including concrete degradation in the plant's safety-related concrete structures, and the perceived inability to conduct a safe, timely evacuation of the residents in the area in the event an accident occurs at Seabrook Station. First, I would like to provide you an update on NRC staff activities regarding the oversight of Seabrook Station and the license renewal application review, as it relates to the alkali-silica reaction (ASR) issue, and reassure you of our diligence in ensuring that this facility meets our safety requirements. We are aware of the concerns of local citizens and representatives with regard to the ASR issue as noted in the letter previously submitted by the Board of Selectman of the Town of Salisbury. A comprehensive list of our actions and correspondence in this matter is available 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's 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 ASR-affected structures at Seabrook Station 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 six months to review NextEra activities to address the effect of ASR on Seabrook's concrete structures. This interval is conservative and protective of public health and safety given the very slow progression rate of ASR.

As part of our license renewal review process and our oversight of the Seabrook Station operation under their current license, the NRC will ensure that the Seabrook Station 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 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 oriented 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 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 Station. 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 non-conforming 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 their large-scale test program are representative of actual conditions at Seabrook Station prior to formally submitting the results of their accompanying evaluations to the NRC in accordance with the requirements of 10 CFR 50.59 and 50.90 as applicable to resolve the ASR non-conforming condition.

The NRC staff's safety review of the Seabrook Station license renewal application is continuing, and no regulatory decision has been made on the application. The original safety review schedule has been revised repeatedly 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 issue 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 during a radiological event. The NRC has determined that a 10-mile radius Emergency Planning Zone (EPZ) for emergency planning efforts would be 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 to the NRC a determination of reasonable assurance for both the State of New Hampshire and the Commonwealth of Massachusetts for implementing their emergency response plans and programs. The most recent emergency exercise report for Seabrook is publicly available on the NRC document control system (ADAMS) as ML15034A368. The results of prior exercises published by FEMA are publicly available on our website at: <http://www.nrc.gov/about-nrc/emerg-preparedness/related-information/fema-after-action-reports.html>.

Regarding the other concerns you expressed about Seabrook plant safety, on the issue of sea-level rise and flooding, these issues have been reviewed in the course of the ongoing efforts to address the lessons learned from the Fukushima event in Japan in 2011. Due to the initial

construction of the site 20 feet above mean sea level behind the Seabrook and Hampton beaches, the Agency has no concerns with the potential impacts of sea level rise on Seabrook plant safety. Our most recent evaluation of potential onsite flooding can be found at: <http://pbadupws.nrc.gov/docs/ML1412/ML14128A498.pdf>.

Finally, with regard to your concern with the earthquake vulnerability of Seabrook, the results of the NRC staff's screening and prioritization were documented in a letter to all U.S. nuclear power plants on May 9, 2014. The NRC has completed its review of Seabrook's interim evaluation, which was part of its March 2014 submittal on this matter (see <http://pbadupws.nrc.gov/docs/ML1409/ML14092A413.pdf>) and concluded that Seabrook can continue to operate safely while it completes further evaluations in this area.

Based on the information above, the NRC does not have a current safety and/or legal basis to revoke the operating license for Seabrook Station. 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., revoking the operating license). As such, please contact Richard Barkley of my staff at (610) 337-5328 if you want your letter processed pursuant to 10 CFR 2.206, or have any further concerns in this matter.

Sincerely,

/RA/

Michael L. Scott, Director
Division of Reactor Projects

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 ADAMS Accession No. **ML15281A181**

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