



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

October 9, 2015

City of Newburyport City Council  
Mr. Robert Cronin, Ward 3 Councilor  
Newburyport City Hall  
60 Pleasant Street  
P.O. Box 550  
Newburyport, MA 01950

Dear Mr. Cronin:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of August 11, 2015, to NRC Chairman Stephen Burns. I apologize for the delay in responding to your letter. We did not receive the letter by mail and it was recently provided to the Agency by a concerned citizen of Newburyport.

Your letter requested the withdrawal of the operating license for Seabrook Station for the following two reasons: 1) concrete degradation in the plant foundation and safety-related concrete structures, and 2) 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 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'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 drill report for Seabrook is publicly available on the NRC document control system (ADAMS) as ML15034A368. The

results of prior drills 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>. Since FEMA has offsite EP responsibility, we suggest you contact the FEMA office that is responsible for Seabrook Station's emergency plan to discuss your specific concerns: FEMA Region I, 99 High St., Boston, MA 02110 (1-877-336-2734).

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., withdrawal of 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 by J. Colaccino Acting for/***

Michael L. Scott, Director  
Division of Reactor Projects

Identical letters were sent to:

Mr. Barry Connell, Councilor at Large  
Mr. Edward Cameron, Councilor at Large  
Ms. Allison Heartquist, Ward 1 Councilor

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