



Stephen Burns, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

January 21, 2016

Dear Chairman Burns:

I serve on the Amesbury City Council as District 6 Councilor and Vice President.¹ Amesbury is located eight miles from Seabrook Station, within the plant's 10-mile emergency evacuation zone in Massachusetts.

As a city councilor, my most basic responsibility is to assure the safety and health of Amesbury's residents. After hearing discussion before the Amesbury City Council, reviewing documents, and listening to constituents, I firmly believe that the Seabrook nuclear reactor poses an unacceptable risk to the lives and livelihood of the people of Amesbury and New England.

On behalf of public safety, I call upon the U.S. Nuclear Regulatory Commission (NRC) to shut down Seabrook Station by withdrawing its license to operate.

In doing so, I stand shoulder-to-shoulder with local and state representatives throughout the entire Massachusetts evacuation zone who have called for a Seabrook plant shutdown. Here in Amesbury, the City Council voted unanimously to send the NRC a letter of concern regarding Seabrook's safety issues in May 2014.² Then, in October 2015, then Amesbury Councilor Anne Ferguson called upon the NRC to shut down Seabrook Station on behalf of public safety.

A growing chorus of Massachusetts elected officials has called for a Seabrook Shutdown. They include municipal legislators in Amesbury, Newburyport and Salisbury—every municipality in the Massachusetts portion of the Seabrook evacuation zone.³ I join Senator Kathleen O'Connor Ives and former Representative Michael Costello—our entire state delegation—who called on the NRC in December 2013 to close Seabrook Station.

Among these elected officials are both those who are for and those who are against nuclear power. Regardless of their position regarding nuclear power, each shares a deep concern about Seabrook's safety issues and the continued operation of this *particular* nuclear plant.

¹This letter represents my views rather than a council action.

²From 2012 to 2014, six other municipalities—Newburyport, Salisbury, West Newbury, Newbury, Merrimack, and Ipswich also wrote letters of concern about safety issues, along with the Mayors of Newburyport and Haverhill.

³These include four members of the Newburyport City Council including Ed Cameron, Barry Connell, Robert Cronin, and Allison Heartquist (Letter to NRC, August 11, 2015), Freeman Condon Chairman of the Salisbury Board of Selectmen (Letter to the NRC, Sept. 9, 2015).

Seabrook Station's continued operation is too risky

I urge the NRC to withdraw the license to operate Seabrook Station because:

- (1) The plant is at risk of a nuclear incident due to an unknown amount of concrete degradation caused by an alkali-silica reaction which is pervasive] throughout the plant's foundation and the containment building.
- (2) Should an accident, incident, or act of terrorism occur, evacuation plans for a radiological release are *destined* to fail.
- (3) We question whether the NRC has the expertise to meaningfully assess the impact of alkali-silica reaction (ASR) because (a) ASR is a completely new phenomenon to the NRC and the nuclear power industry, and (b) the NRC lacks any regulatory track record with regard to ASR upon which it guide its decisions.

Since ASR was first discovered at the plant, the NRC has stated frankly that there is "no known way" to either remedy existing ASR or stop the progression of the concrete degradation it causes.

There is scientific controversy and uncertainty about ASR. I am especially concerned with the safety issues identified by the Union of Concerned Scientists (UCS). UCS has cautioned that the NRC decision to allow the plant to continue operation is based on a flawed analysis. The NRC has only used visual inspections of the concrete surface and failed to examine the extent of degradation below the surface. As a result, the true condition of the concrete is an unknown, putting the public at unknown risk.

It does not help that Seabrook Station is located only 50 miles from the epicenter of a 4.0 earthquake which occurred in 2012. Owners of the plant claim that the plant was built to withstand earthquake conditions, but ASR was not planned for when the plant was built and no one knows how degraded concrete will behave if a stronger or closer earthquake should occur.

With the NRC's approval, the plant's owner is conducting a long-term reliability study of the concrete degradation. However, the UCS contends that the study is fatally flawed. Specifically, the study uses "replica" samples rather than actual samples from the plant's concrete. The replica is meant to mimic the alkali and silica that exist in the plant's concrete but has been distorted to accelerate the progression of the reaction.⁴ The UCS and the C-10 Research and Education Foundation question whether it is possible for the results from these samples to be correlated with what may be occurring in the actual concrete. This raises questions about the validity and reliability of the study results.

Due to ASR, evacuation safety and other reasons, including vulnerability to terrorism as is currently being reported, Seabrook Station is far too risky to be allowed to continue operation and should be closed.

⁴The aggregate mined for the study samples comes from New Mexico rather than the Maine mine where the original aggregate came from.

New England has safe and clean renewable energy alternatives

Although New England's need for an electricity supply that is both safe and clean is not under the purview of the NRC, it is obvious that New England needs a safe and clean adequate electricity supply as well as conservation. We need to be realistic about the future of nuclear electricity in New England. Even if NextEra's study results suggest that ASR can be managed, the NRC may not agree. For example, the NRC may determine that it is impossible to adequately correlate results from "replica" samples with actual conditions at the plant. Since the findings on ASR are pivotal to the plant's future, the NRC may decide to close Seabrook Station.

But, even if the NRC relicenses Seabrook, the plant's owners may decide to close the plant in the face of costly needed repairs and deteriorating market conditions. Case in point: only 36 months after the NRC approved the Pilgrim Plant for relicensing for 20 years, Entergy, the plant owner, announced that the plant will close due to the high cost of safety fixes and other factors.

Six of New England's nine nuclear reactors have shut down including very recently Vermont Yankee, with Pilgrim due to be closed soon making it the sixth to shut down. Seabrook's owners themselves may decide to close the plant for economic reasons, continuing this trajectory.

Based on this, I support and encourage our region's electricity planners to dramatically accelerate Renewable electricity sources like solar and wind. There are huge opportunities, such as that being proposed by the Danish firm DONG, to install 1,000 MW of wind power off the New England coast.⁵

Fortunately, New England has the brainpower to implement renewable electricity and energy conservation on a large-scale which will, in turn, boost employment.

The NRC Should Convene Meetings on Seabrook Station in Massachusetts

Finally, I strongly urge the NRC to convene the spring 2016 Annual Assessment Meeting on Seabrook Station in Massachusetts. These important meetings have never been held in Massachusetts, although sixty thousand citizens reside in the Massachusetts evacuation zone. It would be appropriate and fair to convene the next public meeting in Massachusetts to provide better access to our residents and elected officials.

Respectfully,



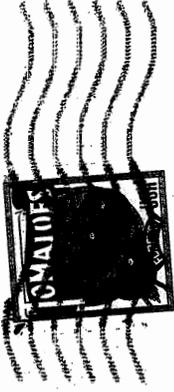
Jonathan Sherwood, Councilor, District 6

⁵"Huge wind farm proposed off Vineyard", *The Boston Globe*, p.1 Nov. 10, 2015 and "Lots of experience, little name recognition" *The Boston Globe*, Nov. 13, 2015, p. C1. The Danish company, Dong Energy, is the world's largest developer of wind farms.

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