

Congress of the United States

Washington, DC 20515

November 30, 2011

The Honorable Greg Jaczko
Chairman
Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Jaczko:

We write to express our concern that the Nuclear Regulatory Commission (NRC) has not taken any mandatory action to address problems related to the dissolution of concrete in safety-related systems at nuclear power plants. This problem was first described in a May 30, 2011 article in The Boston Globe¹ noting that concrete surrounding a safety-related tunnel at the Seabrook nuclear power plant had lost 22 percent of its strength due to being saturated with water for the past decade. Yet instead of taking mandatory action to address a known safety vulnerability, the NRC has chosen to merely issue what amounts to an 'FYI' to its licensees that does not require any "specific action or written response".²

As The Boston Globe article³ noted, water seepage beneath the Seabrook power plant has led to significant degradation of the concrete associated with a tunnel that is part of the reactor's cooling system, and NextEra also identified "corroded steel supports, piping, and anchor bolts in other areas they inspected". As the NRC noted in the May 23 document entitled "NextEra Energy Seabrook - NRC License Renewal Inspection Report 05000443/2011007," "the [NRC] inspection team was unable to arrive at a conclusion about the adequacy of your aging management review for the alkali-silica reaction issue," a reaction between concrete and water that is associated with some of the concrete structures at Seabrook.

On November 18, 2011, the NRC issued "Information Notice 2011-20: Concrete Degradation by Alkali-Silica Reaction" to its licensees. The document describes the process by which concrete can be degraded in the presence of water, describes methods that the American Society for Testing and Materials recommends to test concrete for vulnerability to these sorts of problems during testing, and notes that when Seabrook was constructed, some of these methods were utilized but the problems later occurred anyway. The document also notes that the American Concrete Institute has published a means to evaluate concrete at nuclear power plants after construction to assess whether such degradation has occurred, and describes further technology that could be used to confirm the presence of any suspected degradation.

Yet despite the existence of known methods to periodically assess concrete in nuclear power plants to determine whether it has experienced this sort of degradation and technologies that can verify any suspected problems, the NRC document states that there are currently no regulatory requirements that these be utilized. And moreover, the NRC document contains no

¹ http://articles.boston.com/2011-05-30/lifestyle/29600250_1_nrc-seabrook-station-nuclear-power-plant

² See NRC Information Notice 2011-20

³ http://articles.boston.com/2011-05-30/lifestyle/29600250_1_nrc-seabrook-station-nuclear-power-plant

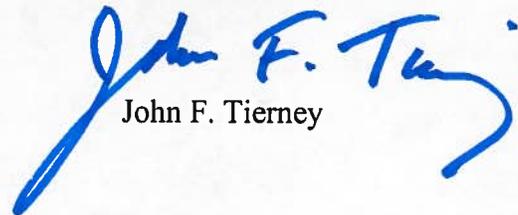
further direction to its licensees – the methods described are apparently just suggestions that could be undertaken on a voluntary basis.

This is a failure to take decisive regulatory action to address known safety vulnerabilities at nuclear power plants. We urge you in the strongest possible terms to take immediate steps to require licensees a) to conduct periodic inspections to assess whether similar concrete degradation of safety-related structures has occurred b) to report all findings to the Commission, and c) to mitigate the effects of any such degradation. Please provide us with your response to this request no later than close of business on December 16, 2011.

Thank you for your consideration of this important matter. If you have any questions or concerns, please have your staff contact Michal Freedhoff (Rep. Markey, 202-225-2836) or Kevin McDermott (Rep. Tierney, 202-225-8020).

Sincerely,


Edward J. Markey


John F. Tierney