December 22, 2011

The Honorable Edward J. Markey
United States House of Representatives
Washington, D.C. 20515

Dear Congressman Markey:

On behalf of the U. S. Nuclear Regulatory Commission (NRC), I am responding to your letter of November 30, 2011, regarding NRC requirements for addressing potential concrete degradation at nuclear power plants.

The NRC has in place a regulatory and oversight program addressing this potential problem. Specifically, Title 10 of the *Code of Federal Regulations* (10 CFR) 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" (commonly referred to as the Maintenance Rule), requires that licensees monitor the performance and condition of structures against established goals in a manner that provides reasonable assurance that the structures remain capable of performing their intended functions. For concrete structures, this usually translates into periodic visual inspections. The Maintenance Rule further states that "[w]hen the performance or condition of a structure, system, or component does not meet established goals, appropriate corrective action shall be taken." Regulatory Guide (RG) 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," explains that an acceptable structural monitoring program should evaluate the results of periodic assessments to determine the extent and rate of any degradation of the structure. It further notes that such a program should correct deficiencies in a timely manner, commensurate with their safety significance. In addition, the quality assurance criteria in 10 CFR 50, Appendix B, require licensees to implement a corrective action program to assure that conditions adverse to quality in nuclear power plant structures, systems, and components are promptly identified and corrected. As a part of its routine inspection of all nuclear power plants, the NRC verifies that licensees are properly implementing the requirements of these regulations.

In the case of Seabrook Station, NRC inspectors identified a regulatory violation as a result of the licensee's failure to adequately monitor the condition of a structure under the Maintenance Rule (i.e., the extent and rate of degradation of the Control Building). The NRC determined the issue was of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not result in an actual loss of safety function, and was not risk significant. The licensee is engaged in further technical investigations and evaluations to address and manage the concrete degradation issue. At this time, we have no immediate safety concern because engineering reviews to date have indicated that the Control Building continues to be able to carry out its safety function.

I would like to clarify that information notices (IN), such as IN 2011-20, "Concrete Degradation by Alkali-Silica Reaction," referenced in your letter, are a form of NRC generic communication issued to licensees for the purpose of providing significant recently

identified information about safety, safeguards, or environmental issues, and are not intended to evoke specific regulatory responses. When Information Notices are issued, licensees are expected to review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems.

Thank you for your interest in this matter. Please contact me or Rebecca Schmidt, Director of the Office of Congressional Affairs, at (301) 415-1776 if you have questions or would like to discuss this further.

Sincerely,

/RA/

Gregory B. Jaczko

Identical letter sent to:

The Honorable Edward J. Markey
United States House of Representatives
Washington, D.C. 20515

The Honorable John F. Tierney
United States House of Representatives
Washington, D.C. 20515