June 25, 2014

The Honorable William R. Keating
United States House of
Representatives
Washington, DC 20515

Dear Congressman Keating:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of April 25, 2014, outlining a number of continuing concerns with the Pilgrim Nuclear Power Station. I am pleased to have this opportunity to update you on the various matters you raised.

With regard to your concern about the viability of the evacuation plan for the communities surrounding Pilgrim, onsite and offsite emergency plans are prepared to provide assurance that adequate measures can be taken to protect the public in the event of a radiological emergency. The NRC and the Federal Emergency Management Agency (FEMA) share federal oversight of nuclear power plant emergency preparedness. At least once every two years, Pilgrim is required to exercise its emergency plan with offsite emergency response authorities, including state and local authorities. The exercise is observed, assessed, and evaluated by the NRC and FEMA. This ensures that the licensee and state and local officials remain proficient in implementing their emergency plans. In November 2012, the NRC staff completed an inspection of the Pilgrim emergency preparedness exercise. The NRC staff reviewed procedures and records, observed and assessed activities, and interviewed personnel. Following our observation and inspection of the Pilgrim emergency preparedness exercise, the NRC staff concluded that the Pilgrim licensee remains in compliance with all applicable regulatory requirements and that the licensee remains fully capable of protecting the public in the event of a radiological emergency.

In March 2013, FEMA conducted its biennial full-scale radiological release exercise in the 10-mile plume exposure pathway emergency planning zone around Pilgrim. The purpose of the exercise was to assess the level of state and local preparedness in responding to a radiological emergency. As a result, FEMA concluded that the exercise demonstrated adequate protection of the public.

The Commonwealth of Massachusetts has the overall authority for making protective action decisions (e.g., sheltering and evacuation) to ensure the safety of Massachusetts residents during a radiological event. In addition, the Massachusetts Emergency Management Agency maintains the FEMA-approved State Radiological Emergency Plan for implementing those decisions. Therefore, the Commonwealth of Massachusetts has a significant role in determining the adequacy of Pilgrim's Emergency Preparedness Program.

With regard to the seismic reevaluation, Entergy, the licensee for Pilgrim, reported that the reevaluated seismic hazard for Pilgrim is higher than the safe shutdown earthquake

previously evaluated as part of the licensing of the plant. This reevaluation, along with submittals from all of the other plants in the Central and Eastern United States, is the first step in determining what additional evaluations and possible safety improvements might be warranted. The NRC staff is in the process of reviewing the licensees' assessments and proposed actions. It is important to note that the seismic hazard reports reevaluated only the hazard, which is the amount of ground shaking, and not the plant capacity to withstand that shaking. The risk posed to the public from a nuclear power plant due to a seismic event is a function of not only the ground motion, but also the plant design and construction, which has been shown to include considerable margin to survive strong earthquakes. For plants whose hazards were higher than their safe shutdown earthquake, such as Pilgrim, the NRC requested either interim actions or an interim evaluation to justify their continued operation while they performed additional evaluations. The NRC reviewed an initial industry assessment of the safety implications of the increased seismic hazard and the individual licensees' interim evaluations and concluded that no immediate changes to plant structures, systems, or components were needed for the operating plants in the United States.

The NRC staff recently completed its screening and prioritization of all the plant submittals to determine which plants need to do a seismic "probabilistic risk assessment" or a seismic "margin analysis" to evaluate in detail how the existing plant structures and systems would respond to shaking from a range of earthquakes that could affect the plant. This assessment is extensive and will require at least three years to complete. Once they are complete, the NRC will decide if additional regulatory actions or upgrades to plant systems and structures are required. In the meantime, these plants must also complete shorter-term work to see if they should enhance key safety equipment. The shorter-term review, or the "Expedited Approach," will evaluate key systems and components that could be used to safely shut down the plant if an earthquake were to occur at the higher seismic ground motion. The Expedited Approach will either confirm that a plant has sufficient margin to continue with a longer-term risk evaluation without any modifications, or confirm the need to enhance the plant's seismic capacity to address the risks associated with the reevaluated hazard. These results of the shorter-term evaluations are due December 31, 2014.

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 staff determined that Pilgrim was categorized as a Group 1 plant. Plants in this group are generally those that have the highest reevaluated hazard relative to the original plant seismic design basis. As a Group 1 plant, Pilgrim's full seismic risk analysis is due in June 2017. The NRC has completed its review of Pilgrim's interim evaluation submitted in March 2014, and concluded that Pilgrim can continue to operate safely while it completes further evaluations. As a near-term step, Pilgrim must complete the expedited approach

In your April letter, you also raised a concern regarding the potential for terrorist activity at Pilgrim, based on a study by the Nuclear Proliferation Prevention Project at the University of Texas. In the years since 9/11, the NRC and its licensed operators have significantly enhanced security at the nation's nuclear plants. It is worth noting that specific security measures at nuclear power plants are considered "safeguards information" (a type of unclassified, yet sensitive information) and are not made public. The NRC has instituted robust security requirements for commercial nuclear power plants and facilities housing special nuclear material, and remains confident that these important facilities are adequately protected.

With regard to your concern that the spent fuel pool at Pilgrim is over capacity, under its current technical specifications, Pilgrim's spent fuel pool is approved for storage capacity of 3,859 fuel assemblies. The pool capacity has increased since the plant's original license. The NRC's regulations permit such changes, subject to NRC review and approval. The NRC does not track the inventory of fuel assemblies in a licensee's spent fuel pool; however, ongoing staff reviews of licensee criticality safety analyses are sufficiently robust and detailed to ensure licensees are operating their facilities, including the spent fuel pools, in a safe manner. Pilgrim plans to construct and operate an Independent Spent Fuel Storage Installation using dry cask storage for increasing spent fuel storage capacity.

Finally, you express concern regarding "an uptick in shutdown activation" at Pilgrim. In response to declining performance indicators at Pilgrim, the NRC has increased oversight at the plant and will be conducting a supplemental inspection into the causes of recent unplanned reactor shutdowns. The NRC's additional oversight will ensure that Pilgrim is taking effective steps to correct the performance issues in a timely manner. The results of the inspection will be publicly available in an NRC inspection report in the near future.

I appreciate your interest in Pilgrim and hope this information is useful to you. The NRC takes its mission of ensuring public health and safety very seriously. The NRC's regulations and associated licensing, inspection, and enforcement programs provide assurance that all of the Nation's nuclear power plants, including Pilgrim, are operated in a safe manner. The NRC is prepared to take appropriate action, up to and including plant shutdown, to protect public health and safety. Your interest and feedback help the agency to fulfill its mission in an open and transparent manner. We would be happy to offer you and your staff an in-depth briefing of any of these topics. If you have any questions, please contact me or Amy Powell, Acting Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

/RA/

Allison M. Macfarlane