December 8, 2000

The Honorable Edward J. Markey
United States House of Representatives
Washington, D.C. 20515-2107

Dear Congressman Markey:

Thank you for your letter of November 14, 2000, in which you expressed concern about fire protection at nuclear power plants, the fire at the Pilgrim Nuclear Power Station, and the fire safety attributes associated with the Nuclear Regulatory Commission's (NRC) risk-informed oversight process. The Commission shares your interest in ensuring adequate fire protection programs at nuclear power plants. We also agree that it is imperative that the NRC maintains a thorough inspection program in the area of fire protection.

As you will note in the enclosed responses to your specific questions, we continue to evaluate our programs in light of industry experience and our ongoing efforts to improve our regulatory processes. We are also working with the industry, the National Fire Protection Association (NFPA), and other interested stakeholders to develop alternatives to the current deterministic fire safety standards, and will ensure that the alternative risk-informed and performance-based standards continue to provide adequate protection for fire hazards at nuclear power plants.

To address any specific concerns you may have with fire protection programs at Pilgrim, I have also enclosed the report for the most recent fire protection inspection conducted at that facility.

If you have any further questions, please contact me.

Sincerely,

/RA/

Nils J. Diaz
Acting Chairman

Enclosures: As stated

RESPONSE TO QUESTIONS REGARDING PILGRIM FIRE AND ITS IMPACT ON THE NEW RISK-INFORMED REACTOR OVERSIGHT PROCESS

(1) "Please provide more information about the nature of the fire at the Pilgrim Unit 1 facility. What caused the fire to start? Where did it begin? Did the fire spread beyond the initial location?"

The fire started while maintenance workers were conducting welding in the radwaste truck lock, above a room containing radwaste treatment equipment that is no longer in use. During the welding activities, hot metal fell onto a small amount of combustible material in the room below. The licensee contained the fire in the initial location and extinguished it.

(2) "The NRC has failed in the past to consider in its risk assessments the implications of failures in the elements of the plant that prevent fires from spreading - so-called 'passive barriers.' How did these elements fair in the Pilgrim fire? Did the passive barriers perform in the manner that the NRC expected?"

The room in which the fire occurred contains no important-to-safety equipment other than a passive fire barrier, a 3-hour rated wall. This fire barrier separates the truck lock area and the room below from two different fire zones with safety-related equipment and it performed as expected. The fire did not damage the fire barrier, nor would barrier damage be expected for a fire of this nature. As a result, no damage occurred to any important-to-safety equipment. In addition the licensee uses fire watch personnel to monitor activities with potential to start a fire. Fire watch personnel were observing the welding work, and they promptly identified the fire and notified the fire brigade who extinguished it.

(3) "As part of the NRC's efforts to improve fire safety at commercial nuclear power plants, the NRC conducted inspections at 10 plants. Was the Pilgrim Unit 1 plant included in this assessment? If so, what were the findings of that inspection? If not, when was the last time an inspection was done at the Pilgrim plant? Will the NRC conduct an inspection of Pilgrim Unit 1 in light of the recent fire there?"

Pilgrim was not one of the plants inspected in the pilot fire inspection program. The NRC conducted its most recent fire protection inspection at Pilgrim between August 14 and August 18, 2000. The inspections found that Pilgrim's fire protection programs, processes, procedures, and systems met NRC requirements. A copy of the inspection report is provided as Enclosure 2.

With respect to questions regarding NRC inspection activities related to the recent fire, the NRC senior resident inspector responded to the site when notified of the event to assess the licensee's performance in response to the fire. Based on his observations and staff evaluation, the NRC considered the response appropriate. While this fire was considered minor and the licensee's response appropriate, the NRC staff will conduct further inspection under the baseline inspection program to ensure that the licensee's corrective actions appropriately include lessons learned from this event, such as more effective measures to prevent fires while conducting grinding and welding activities.

(4) "The GAO [General Accounting Office] indicated that the Nuclear Energy Institute (NEI) would be testing the use of performance indicators at selected facilities prior to

implementing them in the risk-informed regulatory oversight. What is the status of that pilot program? Has NEI completed it? Was Pilgrim one of the facilities involved in the pilot program?"

During recent discussions, NEI representatives informed the NRC staff that NEI has decided to defer the development of performance indicators for application in the regulatory oversight of licensees' fire protection programs. As a result, NEI has not conducted a pilot program. However, the NRC's Office of Nuclear Regulatory Research is developing additional performance indicators for nuclear power plants which may provide insights into the fire protection area. We expect to complete that portion of the risk based performance indicator development program that addresses fire risk in November 2001.

(5) "The GAO report also indicated that the NRC had not developed accurate risk-assessment standards for fire safety. When does the NRC intend to have these in place? Will the results of the Pilgrim Unit 1 incident be used to update and improve those assessments?"

Adequate fire protection standards are in place at every commercial nuclear plant as set forth in 10 CFR 50.48, "Fire Protection," and Appendix R to Part 50, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979." Since the NRC has not yet adopted risk-informed fire protection regulations, we continue to ensure that the current deterministic fire protection regulations are implemented at all commercial nuclear plants, including Pilgrim. In accordance with Public Law 104-113, the "Technology Transfer Act of 1995," the NRC staff, with the nuclear industry, and other interested stakeholders are working with the National Fire Protection Association (NFPA) to develop a risk-informed and performance-based fire protection standard for nuclear power plants. The NFPA membership approved this standard, NFPA 805, on November 15, 2000. NFPA expects to publish this standard in April 2001. The NRC expects to endorse NFPA 805 as a voluntary alternative to the existing NRC fire protection regulations which have been determined to provide adequate fire protection.

In addition, the staff thoroughly evaluated the fire at Pilgrim, considered NFPA 805 standards, and determined that no updates or improvements to NFPA 805 are warranted as a result of the Pilgrim fire.