June 13, 2011

The Honorable Richard Blumenthal
United States Senate
Washington, D.C. 20510

Dear Senator Blumenthal:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of March 31, 2011, which raised several questions regarding the storage of spent fuel onsite at U.S. nuclear power plants.

Following recent events in Japan, the NRC has established a task force, consistent with Commission direction, to recommend whether the agency should make improvements to the U.S. regulatory system. The task force will examine operational and regulatory issues potentially affecting the 104 operating reactors in the U.S., including their spent fuel pools, and other NRC-licensed facilities. Consistent with the Commission's direction, the task will have both near-term and longer-term components.

Enclosed are responses to your questions concerning long-term storage of spent nuclear fuel, the amount of spent fuel at reactor sites, and oversight of spent fuel in dry storage at Haddam Neck.

I appreciate your continuing interest in these matters and would be happy to provide you with additional information about how the NRC ensures that commercial spent nuclear fuel is safely and securely stored. If you have any additional questions, please contact me or Ms. Rebecca Schmidt, Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosure:
As stated

Responses to your questions concerning long-term storage of spent nuclear fuel, the amount of spent fuel at reactor sites, and oversight of spent fuel in dry storage at Haddam Neck.

1. Has the NRC determined how long nuclear waste can safely be stored at reactor sites until a long-term storage solution is identified?

In its updated Waste Confidence Decision, published in the *Federal Register* on December 23, 2010, the Commission found reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely without significant environmental impacts for at least 60 years beyond the reactor's licensed life for operation (which may include the term of a revised or renewed license) in a combination of storage in its spent fuel pool and either onsite or offsite independent spent fuel storage installations (ISFSIs).

2. Does the NRC have data about how much spent nuclear fuel is currently stored at various sites across the United States, in both dry storage and spent fuel pools? How often is this data updated?

This information is collected by the U.S. Department of Energy (DOE), which has ultimate responsibility for the disposal of spent nuclear fuel. As of January 2010, DOE estimated the amount of commercial spent fuel in storage at commercial nuclear power plants to be approximately 63,000 metric tons.

3. What steps has the NRC taken to ensure that these on-site storage facilities, such as the one located in Haddam Neck, are properly maintained and secured against natural disasters or man-made catastrophes, including terrorist attacks?

ISFSIs, such as the one at Haddam Neck, are required to comply with NRC licensing regulatory requirements specific to these structures that incorporate technical requirements and operational conditions to ensure protection of public health and safety. These requirements include measures to protect against natural disasters or man-made catastrophes. With regard to terrorist attacks, NRC regulations also require onsite storage facilities to have measures in place to counter a wide range of adversarial acts that could cause damage to the facility. Subsequent to the events of September 11, 2001, security orders were issued to licensees that required them to implement additional security measures at their facilities. In the aftermath of the nuclear events in Japan, the agency is evaluating areas such as plants' ability to protect against natural disasters, response to station blackouts, and spent fuel accident management. On an ongoing basis, NRC oversight of onsite ISFSIs assures that licensees are meeting their responsibilities. This oversight could include the onsite presence of NRC resident inspectors at operating reactors who conduct routine oversight. Their activities are supplemented, as appropriate, by inspectors from the NRC regional offices who perform inspections in a wide variety of engineering and scientific disciplines. At Haddam Neck, because there is no longer an operating reactor, there are no resident inspectors. The necessary inspections at Haddam Neck are performed by inspectors from our Region I office near Philadelphia, Pennsylvania.

Enclosure