July 19, 2010

The Honorable Robert Menendez
United States Senate
Washington, D.C. 20510

Dear Senator Menendez:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of May 20, 2010, regarding protection of New Jersey water resources from tritium contamination at the Oyster Creek nuclear power plant near Toms River.

Since the identification of a tritium release onsite at Oyster Creek in April 2009 (and a subsequent discovery in August 2009), the NRC has been closely following Exelon's actions regarding the evaluation and characterization of groundwater contamination and its potential impact on the public. Specifically, we have reviewed the circumstances that led to the occurrences, assessed the effectiveness of Oyster Creek's investigation, and evaluated the potential radiological consequences to members of the public. Our findings are documented in several NRC Inspection Reports, which are enclosed.

The NRC has two resident inspectors onsite who have also monitored the tritium contamination on a day-to-day basis since April 2009. In addition, we have region-based specialist inspectors who have provided health physics inspection support since the initial release and will continue to monitor the situation as part of our oversight process.

NRC's independent inspection confirmed that plant-related radioactivity, including tritium, has not been detected at any off-site liquid discharge or groundwater environmental monitoring location. To date, the current on-site groundwater contamination condition at Oyster Creek has not resulted in any impact on public health and safety or exceeded any regulatory limits for liquid discharge releases.

The NRC has reviewed Exelon's groundwater geology study that indicates the subsurface water flow containing the tritium plume under the Oyster Creek site is contained within the shallow Cape May aquifer and the somewhat deeper Cohansey aquifer. The tritium contamination is slowly moving through the subsurface to the Oyster Creek intake/discharge canal, where it is diluted to non-detectable levels and subsequently discharged into the Barnegat Bay and onward to the Atlantic Ocean. A layer of clay that exists between the Cohansey aquifer and the much deeper Kirkwood drinking water aquifer greatly impedes water movement downward.

As announced by the State of New Jersey Department of Environmental Protection (DEP) on June 3, 2010, Oyster Creek plans to install supplemental groundwater monitoring wells to validate and characterize in greater detail the extent of tritium in the Cohansey aquifer, as well as sample more extensively existing monitoring wells, including those that extend into the Kirkwood aquifer. The NRC has been and will continue to work closely with the State of New Jersey, and the Environmental Protection Agency, on this and other matters involving Oyster Creek.

As part of our ongoing oversight, the NRC is closely monitoring the licensee's actions directed towards minimizing the possibility of future groundwater contamination. To date, Exelon has repaired the piping associated with the leaks and is now working to relocate the underground piping in question so that it can be readily inspected. Specifically, Exelon is in the process of bringing the piping above grade and/or placing it in monitored vaults to prevent any future tritium release.

As a result of the leaks at Oyster Creek and similar incidents at other facilities, the NRC has created a Groundwater Contamination Task Force to further evaluate current NRC policies and our threshold for response to groundwater contamination incidents at commercial nuclear power plants. Please find enclosed a copy of the Task Force's report that was issued on June 11, 2010. A senior management team at NRC will review the Task Force Report to determine what, if any, recommendations may warrant potential policy changes for the Commission to consider.

The NRC will continue to monitor Exelon's activities at Oyster Creek and, if necessary, take appropriate regulatory or enforcement actions to protect the public health and safety. The NRC also will continue to keep the public informed. If you have any additional concerns on this matter, please do not hesitate to contact me.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosures:
1. Letter to Charles Pardee, Exelon, dated 09/08/09, subject: Oyster Creek Generating Station - NRC Inspection Report 05000219/2009008 (Underground Piping Leak)
2. Letter to Charles Pardee, Exelon, dated 10/28/09, subject: Oyster Creek Generating Station - NRC Integrated Inspection Report 05000219/2009004
3. Letter to Charles Pardee, Exelon, dated 01/26/10, subject: Oyster Creek Generating Station - NRC Integrated Inspection Report 05000219/2009005
4. Groundwater Task Force Final Report, June 2010