State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

MARK N. MAURIELLO
Acting Commissioner

May 12, 2009

Honorable Christopher J. Connors
Honorable Brian E. Rumpf
Honorable Daniel M. Van Pelt
Legislators, District 9
620 West Lacey Road
Forked River, New Jersey 08731

Dear Senator Connors, Assemblymen Rumpf and Van Pelt:

I am writing in response to your April 21, 2009 letter requesting a briefing on Exelon Nuclear's (Exelon) investigation into the discovery of tritium in an underground cable vault at the Oyster Creek Nuclear Generating Station (Oyster Creek), and your May 6, 2009 request for additional information.

The New Jersey Department of Environmental Protection's (DEP) Bureau of Nuclear Engineering has closely followed and participated in the tritium investigation at Oyster Creek since it was identified and reported to us on April 15, 2009. We share your concerns regarding the source and extent of tritium found in groundwater and will continue to provide an independent assessment into the cause and resolution of this issue.

During a planned cable replacement within an onsite cable vault, plant workers at Oyster Creek discovered water within the vault. Plant policy is to sample any water collecting onsite in vaults, excavation trenches, and buildings for radioactivity. As a result, sampling of the water that had collected within the vault indicated 102,000 picoCuries per Liter (pCi/L) tritium. Subsequent to this discovery, 4.5 million pCi/L tritium was detected in an existing onsite groundwater monitoring well. Five additional groundwater wells were installed in the vicinity of the underground cable vault. As part of Exelon's investigation, they discovered two active pipe leaks. The underground portion of these pipes has since been replaced. The investigation is continuing in order to assess whether additional underground piping, or an onsite storage tank, may also be a contributing source. This investigation includes pressure testing, visual inspection, and excavation of nearby underground piping in the area of pipe leaks, and inspection of the integrity of the storage tank.

Exelon continues to sample the onsite groundwater monitoring wells in the vicinity of the underground cable vault to determine whether the tritium is migrating towards the property boundary and to ensure that the tritium levels decrease as would be anticipated if the leaks were terminated. Daily surface water samples are also being taken from the plant's intake canal and the discharge canal, including the Route 9 Bridge which represents the nearest public access

point. The DEP has been receiving split samples of groundwater monitoring wells and surface water for independent analysis by our radiological contract laboratory. Sampling has shown no detectable levels of tritium in surface water samples, therefore posing no threat to public health and safety. The tritium in groundwater detected during onsite well monitoring is within the Cape May aquifer. In this area, this aquifer is not used as a public water supply. I have instructed enforcement officials within my Department to investigate whether Oyster Creek has violated any environmental laws regarding the release of tritium into groundwater.

My staff continues to be onsite participating in the ongoing inspections with Exelon and the Nuclear Regulatory Commission (NRC). We will be able to provide more details once the NRC has completed its investigation and published an inspection report, as agreed upon through the DEP's Memorandum of Understanding with the NRC that allows our observation during inspections at New Jersey's nuclear power plants. Based on this recent discovery of tritium, our assessment will include a review of Exelon's characterization of groundwater flow onsite, the placement of their current groundwater monitoring wells, and the frequency of the sampling of those wells.

Meanwhile, results of the DEP's split sampling efforts will be posted to the Department's website address at http://www.state.nj.us/dep/rpp/bne/index.htm for public viewing. As we continue to monitor the environment through the collection of split samples, we will also assess the need for any further action.

Thank you for sharing your concerns with me. I appreciate the opportunity to explain what my Department is doing to safeguard public health and the environment regarding this issue.

Sincerely yours,

Mark N. Mauriello

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c: Nancy Wittenberg, Assistant Commissioner, Environmental Regulation
John W. Hazen, Director, Office of Legislative Affairs
Nancy T. McNamara, USNRC State Liaison Officer, Region 1
James L. Laird, Director, Public Affairs, Exelon Corporation
Wolf Skacel, Assistant Commissioner, Compliance & Enforcement