



July 25, 2003  
LR-E03-0337

**CERTIFIED MAIL  
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**Bureau of Discharge Prevention  
N.J. Department of Environmental Protection  
401 East State Street, P.O. Box 424  
Trenton, N.J. 08625-0424**

**Discharge Confirmation Report Supplement  
NJDEP Case No. 03-02-06-1124-46  
PSEG Nuclear LLC – Salem Generating Station**

**Dear Sir or Madam:**

We are submitting this report pursuant to N.J.A.C. 7:1E-5.8(d) to provide additional information that became available following the submittal of the Discharge Confirmation Report in the above-referenced case. PSEG Nuclear LLC ("PSEG Nuclear") submitted a Discharge Confirmation Report dated March 7, 2003 to the New Jersey Department of Environmental Protection ("NJDEP") pursuant to N.J.A.C. 7:1E-5.8(c) regarding a discharge at PSEG Nuclear's Salem Generating Station identified on February 6, 2003. The Discharge Confirmation Report was executed by John Carlin, Vice President – Engineering for PSEG Nuclear.

The Discharge Confirmation Report reported the discovery of tritium ( $^3\text{H}$ ), a radioisotope of hydrogen, in the form of tritiated water, in on-site groundwater monitoring wells at Salem. PSEG Nuclear implemented a program to investigate the source and extent of the tritium at the site that included the installation of additional groundwater monitoring wells and a regular program of sample collection and analysis from these wells. This program was conducted in accordance with a Remedial Investigation Work Plan developed for the case and the results are shared with the NJDEP, Bureau of Nuclear Engineering ("BNE") and the United States Nuclear Regulatory Commission ("USNRC").

The analytical results from a sample collected from monitoring well S on the site indicated a concentration of tritium of approximately  $3.5 \text{ E}^{-3}$  microcuries/milliliter,

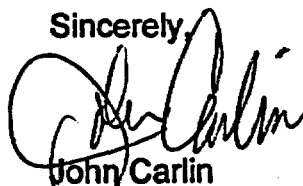
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which is greater than concentrations previously detected at the site. Additionally, a sample from existing monitoring well M indicated a result of  $1.25 \text{ E}^{-4}$  microcuries/milliliter, which was higher than previously observed at this location although this well had been re-developed since the previous sample. Gamma scans of samples from both locations detected no other radionuclides. These analytical results were verified to PSEG Nuclear on July 23, 2003 and PSEG Nuclear communicated these results to BNE and the USNRC the same day. PSEG Nuclear is submitting this supplement within ten days of its receipt of this data.

PSEG Nuclear has initiated a program to identify the source and extent of this most recently discovered tritium concentration and is adapting the Remedial Investigation Work Plan identified activities to include additional monitoring wells and an expedited assessment of potential sources and release paths. PSEG Nuclear shall continue to share information generated from its investigations of the tritium with BNE and the USNRC. Consistent with this practice and the March 7<sup>th</sup> Discharge Confirmation Report, copies of this supplement are being forwarded to BNE and the USNRC.

If you have any questions regarding this information, please contact Mr. James Eggers at (856) 339-1339 or Mr. David K. Hurka at (856) 339-1275.

Sincerely,



John Carlin

Vice President – Engineering

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Facility Operating License DPR-70  
Docket No. 50-272  
Washington, DC 20555**