



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

362 INJUN HOLLOW ROAD • EAST HAMPTON, CT 06424-3099

December 4, 2002

CY-02-145

Mr. Juan Pérez  
Environmental Scientist  
Office of Site Remediation and Restoration  
US Environmental Protection Agency, Region 1  
1 Congress Street  
Suite 1100 (HBT)  
Boston, MA 02114-2023

Haddam Neck Plant  
Third Round 2002 Non-Radiological  
Sampling Results and  
Groundwater Environmental Indicator Form CA750

Dear Mr. Pérez:

Connecticut Yankee Atomic Power Company (CYAPCO) completed the fourth round of non-radiological groundwater sampling in October 2002. Attached for your information and review are the October 2002 Non-Radiological Groundwater Monitoring Report and tables for: (1) depth-to-water measurements and groundwater elevations (Table 1); (2) location and analysis rationale for samples taken (Table 2); (3) industrial and peninsula area sampling analysis results for the three rounds in 2002 and one round in 2000 (Table 3); and (4) summary analysis results for two sampling rounds at the landfill area (Table 4). Groundwater samples have now been taken from all wells in close proximity to proposed Areas of Concern (AOC). Additional groundwater sampling and analysis will be performed during implementation of the RCRA Corrective Action Program.

*Summary of Third Round 2002 Non-Radiological Results*

- The overall shallow groundwater flow beneath the industrial/peninsula area continues in the general direction from the hillside to the south, southwest toward the Connecticut River, consistent with previous calculations.
- The overall shallow groundwater flow beneath the landfill area was in the general direction of eastward, toward Salmon Cove.

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- Low levels of one volatile organic compound (i.e., acetone) was identified in several monitoring wells, most likely the result of laboratory artifacts.
- Monitoring well MW-109S was analyzed for VOC, SVOC, ETPH and NaHClO<sub>3</sub> constituents. Concentrations of chloride at 290 mg/L, nitrate at 4.2 mg/L, sulfate at 35 mg/L, mercury at 0.38 µg/L and arsenic at 20.4 µg/L were detected.
- All monitoring wells analyzed for ETPH were below the respective Method Detection Limits (MDLs).
- Monitoring well MW-101S exhibited low level detections of three SVOCs as follows: benzo(k)fluoranthene at 0.5 µg/L, fluoranthene at 0.7 µg/L and pyrene at 0.6 µg/L.
- Monitoring well MW-102S was analyzed for PCBs and was below the respective MDL.
- A variety of the thirteen (13) priority pollutant metals were detected at low-level concentrations in the monitoring wells analyzed.

MW-109S, with an arsenic concentration of 20.4 µg/L, was the only well that exhibited a contaminant level above the groundwater protection criteria of 4 µg/L for groundwater discharges to surface water.

*EPA Environmental Indicator Corrective Action Form CA750*

The EPA Environmental Indicator (EI) Corrective Action (CA) Form 750 is enclosed for your review and approval. The following concentrations of contaminants were less than ten times the State of Connecticut Department of Environmental Protection Remediation Standard Regulations Surface Water Protection Criteria (SWPC) for groundwater discharges to surface water:

<u>Contaminant/ Concentration</u>	<u>Well Location</u>	<u>Sample Date</u>	<u>CTDEP RSRs SWPC</u>
Arsenic 6.4 µg/L	MW-107S	06/2000	4 µg/L
Arsenic 20.4 µg/L	MW-109S	10/2002	4 µg/L
Zinc 157 µg/L	TW-4	08/2002	123 µg/L
Lead 70.8 µg/L	MW-114S	06/2000	13 µg/L

There are no other conditions which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at this concentration. For the contaminants identified, all are less than ten times the

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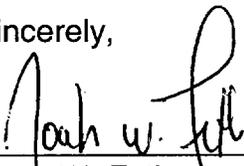
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CTDEP RSRs SWPC for groundwater discharges to surface water. Because the groundwater discharges to the Connecticut River at insignificant levels, migration of contaminant groundwater is considered under control. The boundaries of the potential plume are stabilized. Therefore, CYAPCO requests that the groundwater EI be upgraded to the "under control", "YE" determination.

CYAPCO has begun implementation of the RCRA Corrective Action Program and will provide a status of the program implementation on a monthly basis, and whenever necessary should any adverse situations arise. Groundwater monitoring will continue during implementation of the RCRA Corrective Action Program. If you have any questions regarding this submittal, please contact Frostie White at (860) 267-3952.

Sincerely,



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Noah W. Fetherston  
Site Manager

#### Enclosures

1. October 2002 Non-Radiological Groundwater Monitoring Report
2. Table 1 "Summary Depth-to-Water Measurements and Groundwater Elevations"
3. Table 2 "October 2002 CYAPCO List of Selected Monitoring Wells, Rationale and Analysis"
4. Table 3 "Summary of Groundwater Analytical Data"
5. Table 4 "Summary of Groundwater Analytical Data Inorganic, VOC, Landfill Parameter Analyses Data"
6. EPA Form CA 750

cc: Mr. Mathew Hoagland, EPA Region 1  
Mr. Marv Rosenstein, EPA-Region 1  
Ms. Elizabeth Mason, EPA-Region 1  
Mr. Oswald Inglese, CT DEP  
Mr. Peter Hill, CTDEP  
Mr. Michael Firsick, CTDEP  
Mr. David Ringquist, CTDEP  
Mr. John England, CTDEP  
Ms. Corinne Fitting, CTDEP  
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