

New York State Department of Environmental Conservation

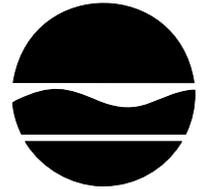
Division of Environmental Remediation

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Alexander B. Grannis
Commissioner

March 10, 2009

Mr. Douglas Garbarini
United States Environmental Protection Agency
Region II
290 Broadway
New York, NY 10007-1866

RE: EPA Cooperative Agreement Shenandoah Road
Groundwater Contamination NPL Site
Final Technical Report

Dear Mr. Garbarini:

Enclosed is the final technical report for USEPA Agreement No. V982633-01. If you or your staff have any questions or concerns regarding this report, please contact Karen Maiurano or me at (518) 402-9662.

Sincerely,

Robert W. Schick

Robert W. Schick
Director
Remedial Bureau C
Division of Environmental Remediation

Enclosure

bec: w/ encl.

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Shenandoah Road Groundwater Contamination NPL Site
NYS Registry Site No. 314104
USEPA Agreement No. V982633-01
Final Technical Report
March 10, 2009

History

The Shenandoah Road site is located at 7 East Hook Cross Road in a residential area in the Town of East Fishkill in rural Dutchess County. A small building formerly located on the one half acre site housed a privately-run microchip cleaning operation from the late 1960s into the 1970s. Solvents, primarily tetrachloroethene (PCE), used in the process were allegedly discharged into the septic system. This practice led to the contamination of subsurface soils and groundwater. All homes in the area are served by private wells.

PCE contamination was discovered above drinking water standards in residential wells near the site in early 2000, and point of entry treatment systems were subsequently installed by EPA and IBM on over 100 residential wells.

In late 2000 EPA removed the septic tank and its contents as well as contaminated soil. In early 2001, the building was demolished and additional waste and soil were excavated.

Under an Administrative Order with EPA, IBM conducted an evaluation of potential water supply sources that could provide a reliable potable source to the area residences. Based on this evaluation, EPA prepared a Decision Document in 2004 selecting the Snook Road Wellfield in the Town of Fishkill. IBM began design for the a waterline and distribution system in 2005 and began construction in Spring 2007.

In the winter of 2005/2006, EPA conducted additional SVI work in residences in the area. Vapor intrusion was identified in several homes. EPA installed mitigation systems in early 2009.

A Remedial Investigation Work Plan was approved in 2005 and field activities are in progress. Data evaluation by IBM, EPA, DEC and DOH is ongoing.

Assessment of Environmental Problems:

The primary contaminants of concern are tetrachloroethene (PCE) and its breakdown products. Site soil impacted by the disposal activities has been excavated and disposed of off-site. A plume of bedrock groundwater contaminated with PCE extends northeast, east and southeast of the site. Over 100 homes have point of entry treatment systems. Vapor intrusion has been evaluated by EPA and mitigation systems have been installed in six homes.

An RI field work to determine nature and extent of contamination began in 2006 and is ongoing.

Assessment of Health Concerns:

For an undetermined period of time, residents using contaminated private wells were exposed to VOCs in their water supply through inhalation, ingestion and/or dermal absorption. Current and future exposures to contaminated water are not expected, since treatment systems have been placed on contaminated and “threatened” private water supplies and each of these systems have been monitored for effectiveness on a quarterly basis by IBM. An alternative public water supply to provide potable water to each residence within the groundwater contamination area is nearly complete. Current exposures to VOCs in indoor air as a result of vapor intrusion have been identified in several structures. Six structures identified as needing mitigation were fitted with sub-slab depressurization system to minimize inhalation exposures. Exposure to contaminated soils at 7 East Hook Cross Road is not expected, since these soils have been removed from the property.

Specific Activities undertaken by the Department during the Agreement Period:

- Reviewed monthly progress reports submitted to EPA by IBM.
- Participated in monthly progress meetings on the RI/FS and the Alternate Water Supply with EPA, USGS, NYSDOH, IBM, and IBM’s consultants.
- Reviewed and provided comments on the Alternative Water Supply Report.
- Reviewed and provided concurrence with the Proposed Response Action Plan for the Alternative Water Supply.
- Reviewed and provided concurrence with the Alternative Water Supply Decision Document.
- Participated in EPA/DOH/Department conference calls regarding EPA subslab vapor data.
- Reviewed and provided comments on the IBM Alternate Water Supply Response Action Design and Construction Work Plan
- Reviewed and provided comments on the Remedial Investigation/Feasibility Study Work Plan.