Jones Chemicals, Inc.

New York

EPA ID#: NYD000813428

EPA REGION 2

Congressional District(s): 27

Livingston

100 Sunny Sol Blvd., Caledonia

NPL LISTING HISTORY
Proposed Date: 6/21/1988
Final Date: 2/21/1990

Site Description

The Jones Chemicals, Inc. site, a 10-acre chemical manufacturing plant, repackaged chlorine from bulk containers into smaller containers from 1942 to 1960 for resale. From 1960 to 1977, Jones Chemicals repackaged chlorinated solvents and petroleum products, including trichloroethylene (TCE) and tetrachloroethene (PCE). As part of this process, the plant installed aboveground and underground bulk storage tanks on the property to store various chemicals. The repackaging of anhydrous ammonia and various acids and the manufacturing of ammonium hydroxide (aqua ammonia) were also conducted at the site. Jones Chemicals stopped repackaging solvents in 1985. The plant now produces sodium hypochlorite (bleach) solutions and sodium bisulfite. It also repackages chlorine, sulfur dioxide, inorganic mineral acids, sodium hypochlorite, ammonium hydroxide, caustic soda and various inorganic water-treatment chemicals.

Throughout the plant's operating years, spills occurred during the transfer and repackaging of many of these chemicals. The New York State Department of Health detected chemicals in three on-site wells in tests conducted in 1986. Toluene, dichloroethene, methylene chloride, chloroform, PCE, and TCE were detected at concentrations above standards.

Spring Creek, a tributary of Oatka Creek, is within a mile downgradient of the site. Local area residents use the creek for recreational activities. This community is primarily residential and has a population of 2,250. Between 2,500 and 3,000 people obtain drinking water from wells within 3 miles of the site. A freshwater wetland is also within a mile of the site.

Site Responsibility: This site is being addressed through a combination of federal, state, and potentially responsible party's actions.

Threat and Contaminants

The ground water contains volatile organic compounds (VOCs), including PCE, TCE, and chloroform. Soils contain VOCs, including methylene chloride, PCE, and TCE. Direct contact with or ingestion or contaminated ground water or soils may pose a health threat.

Cleanup Approach

The site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on the cleanup of the entire site.

Response Action Status

Immediate Actions: To reduce potential for further contamination, Jones Chemicals, Inc. removed three underground storage tanks containing solvents in 1985 and all aboveground storage tanks containing solvents in 1990.

Entire Site In May 1984, Jones Chemicals' contractor began a hydrogeological assessment to determine the extent of soil and ground water contamination from chlorinated organic solvents. This investigation indicated that the on-site soils are contaminated in the vicinity of the plant's lagoons.

In early 1991, under EPA oversight, Jones Chemicals, Inc. began a remedial investigation and feasibility study (RI/FS), to determine the nature and extent of the contamination at and emanating from the site and to identify and evaluate remedial alternatives.

In 1996, as part of a pilot-scale treatability study, Jones Chemicals, Inc., installed a ground water treatment unit to remove PCE, TCE, cis-1,2-dichloroethene (cis-1,2-DCE), and other VOCs from the ground water. Ground water is

pumped from the on-site production wells, treated by an air stripper, and is then used in the manufacturing process as non-contact cooling water and discharged into the on-site lagoons. The results of the treatability study indicate that the air stripper is achieving a 99.5% removal efficiency of PCE, TCE, and cis-1,2-DCE.

Based on the results of the data collected in the RI and risk assessment, an FS was completed in February 2000 to evaluate alternatives for addressing the contamination at the site. EPA evaluated the various alternatives, considered all public comments, and selected the best remedial alternative. The selection of the remedy was documented in a document called a Record of Decision in September 2000. The selected cleanup plan calls for soil vapor extraction (in-place treatment) of the contaminated soils at the location of a former aboveground solvent tank, on-site ground water extraction and treatment, in-place chemical treatment of a ground water contaminant hot spot, and natural attenuation of the ground water outside the area of soil contamination. The remedial design was completed in March 2003.

Construction of the soil vapor extraction system commenced in September 2003; it became operational in April 2004.

Implementation of the ground water remedy commenced in September 2003. Ground water extraction and treatment is currently underway and the first chemical injection to treat the contaminated ground water hot spot took place in July 2005. The results are being monitored.

On September 26, 2006, EPA approved a Preliminary Close-Out Report, documenting the completion of construction activities at the site.

Five-year reviews are undertaken at sites to ensure that implemented remedies protect public health and the environment and that they function as intended by site decision documents. The first five-year review will be conducted before September 2011.

Site Facts: In February 1990, the site was placed on EPA’s Superfund National Priorities List. In March 1991, the PRP signed an Administrative Order on Consent requiring them to undertake an RI/FS at the site. Negotiations with the PRP related to the design and construction of the remedy were completed in summer 2002 and a Consent Decree was signed. The design commenced with the lodging of the Consent Decree in July 2001. The Consent Decree was entered in U.S. District Court (approved by the Judge) in April 2002.

Cleanup Progress

The removal of underground and aboveground storage tanks and the installation of the pilot-scale air stripping system reduced the potential for further contamination at the Jones Chemicals Company site while investigations leading to the selection of a final cleanup remedy took place. The ground water extraction and treatment system is now fully operational. To date, the air stripper has treated more than 500 million gallons of contaminated ground water. The soil vapor extraction system has removed approximately 94 pounds of PCE and its breakdown products.

Although the source has yet to be identified, the Village of Caledonia’s water supply, which is located approximately 700 feet from the southern boundary, was contaminated. By installing an air stripper on the Village's water supply, the potential exposure of the public to hazardous substances has been greatly reduced. The latest test results indicate that the contaminant concentrations meet drinking water standards prior to treatment.

Site Repositories

Village of Caledonia, Clerks Office, 3905 Main Street, Caledonia, NY 14423

Village of Caledonia Library, 3108 Main Street, Caledonia, NY 14423

EPA Public Information Office, 186 Exchange Street, Buffalo, NY 14202