



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

August 19, 1999

Hocomonco Pond Superfund Site

A Cleanup Update from the Environmental Protection Agency

CREOSOTE CONTAMINATION

This 23-acre site in Westborough, MA was used from 1928 through 1946 for saturating wood products with **creosote** for wood preservation. A lagoon was excavated to store wastewater from the operations. As the lagoon filled with creosote, sludge, and water, the contents were pumped into a low depression called Kettle Pond. Creosote contamination spread onto the shoreline of Hocomonco Pond, into Hocomonco Brook and into groundwater underlying the Kettle Pond area.

The Town of Westborough currently owns the property. However, Beazer East, Inc., the company being held responsible for the site's contamination, funds and performs the cleanup under US Environmental Protection Agency (EPA) and MA Department of Environmental Protection (DEP) oversight.

ABOUT CREOSOTE

Long-term direct exposure or exposure via air to creosote can cause skin, eye or respiratory damage.

Skin cancer has also been

associated with long-term creosote exposure.

Creosote can accumulate in plants and animals that are directly exposed. It can move through soil and dissolve in water. In groundwater, creosote takes years to break down.

Creosote is also considered a dense non-aqueous phase liquid (DNAPL). DNAPLs are liquids which are heavier than and do not mix easily with water. DNAPLs tend to sink deep through the water table until they reach a retarding layer, for example, bedrock.

WHAT'S HAPPENING WITH THE CLEANUP?

EPA and DEP are considering waiving the original groundwater cleanup requirements. These levels were based on drinking water standards and the potential for adverse ecological impacts.

EPA and DEP are considering granting this waiver because:

- The presence of DNAPLs, and the inability to recover absolutely all of them, will prevent meeting original cleanup requirements;

- The extent of the ground water plume is relatively small and is not moving off-site.

The agencies believe this waiver is protective and appropriate since:

- The groundwater in this area is not a water supply source, nor is it planned to be one;
- The plume does not threaten an existing water supply source.

To insure protection of human health and the environment, implementation of a long-term groundwater monitoring plan and prohibition of the groundwater being used as a drinking water source would be implemented.

What Do You Think?

Share your thoughts from Aug. 23, 1999 through Sept. 21, 1999. You don't have to be a technical expert. If you have any questions or concerns on waiving the original groundwater cleanup requirements for the Hocomonco Pond Superfund site, contact Derrick Golden.

Give a Call to Derrick Golden, U.S. EPA, 617-918-1448

Send an E-mail to golden.derrick@epa.gov

Send a Letter to: Derrick Golden, U.S. EPA, One Congress Street (HBO) Boston, MA 02114-2023

SITE SUCCESSES

- ◆ Removal of approximately 31,650 gallons of pure creosote, the main source of contamination, from below groundwater table at around 140 feet below grade.
- ◆ Removal of 11,400 cubic yards of highly contaminated soil and sediments from Hocomonco Pond, Hocomonco Brook, Kettle Pond and former above-ground tank farm area.
- ◆ Construction of on-site lined landfill containing excavated site wastes. Periodic testing of nearby groundwater monitoring wells showing no leaks.
- ◆ Capping of contaminated former lagoon area. Prevents exposure to creosote, soils, sediments and other waste materials.
- ◆ Replacement & relocation of Smith Valve Parkway storm drain. Prevents further contamination.
- ◆ Cleaning and lining of Otis Street storm drain. Prevents groundwater contamination from entering drain.

GROUNDWATER CLEANUP EFFORTS

Initial cleanup plans required the installation of groundwater extraction wells and construction of a groundwater treatment plant (GWTP). This work was substantially completed in July of 1994. However, after a brief period of full operation, it became clear that high levels of naturally occurring iron in the aquifer were interfering with the GWTP operations and would cause fouling of the wells to a point where almost constant maintenance would be required and little contaminated groundwater would be extracted.

EPA, DEP and Beazer East evaluated alternative solutions to the fouling of the wells. It was decided that a portion of the groundwater treatment plant and the groundwater extraction system would be shut down.

The DNAPL recovery, however, continues in high concentration areas with specially designed wells. An excess of 31,000 gallons of creosote have been pumped out to-date in the effort to capture as much DNAPLs as possible. DNAPL will continue to be extracted to the extent that it is technically possible, but some contamination of the aquifer will continue because currently there is no known technology available that can remove all DNAPL contamination.

SEDIMENT CLEANUP ACTIVITIES

Sediments in Hocomonco Pond and Hocomonco Brook were contaminated with creosote. They were excavated and disposed of and then replaced with clean material.

Some of the site's groundwater does drain into Hocomonco Pond. EPA, DEP and Beazer East have been evaluating this discharge to determine if contaminants are being transported to the Pond or its sediments and if so, whether this represents any threat to the ecosystem of the Pond.

One sample of the replaced sediments, tested in an area along the southeastern shore adjacent to the former Kettle Pond, was above the cleanup

levels. As a result, EPA and DEP will require Beazer East to establish a long-term monitoring program to evaluate this area over time, ensuring that the cleanup approach remains protective of human health and the environment.

FUTURE ACTIVITIES

EPA, DEP and Beazer East will continue close monitoring, ensuring that the site is not a threat to the environment or human health.

FOR MORE INFORMATION ON SITE ACTIVITIES CALL:

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