U.S. Environmental Protection Agency
Fact Sheet # 19
Standard Chlorine of Delaware (aka Metachem) Site

Delaware City, New Castle County, Delaware

Community Update on Cleanup Progress — May 2010

The U.S. Environmental Protection Agency (EPA) continues its cleanup effort at the Standard Chlorine of Delaware Superfund Site, also known as the Metachem Site, located in Delaware City, New Castle County, Delaware. EPA is cleaning up the Site in four separate parts, called "operable units," or OUs. This fact sheet provides a brief status report of the overall cleanup progress and upcoming activities.

Brief Site Background

The Standard Chlorine of Delaware, Inc. Site is a former chemical manufacturing plant located in an industrial area in New Castle County, DE, three miles northwest of Delaware City. Chlorinated benzene compounds were made on the 65-acre site from 1966 to 2002. As a result of those activities, chlorobenzenes from spilled material have been found in the groundwater, soil, sediments and surface water. Wetlands near the site are also contaminated. The site was added to the National Priorities List (NPL) in 1987, making it eligible to receive Superfund monies.

EPA has taken responsibility for the site cleanup where there is no viable Potentially Responsible Party (PRP). In 2002, the site's owner declared bankruptcy and abruptly closed the facility, leaving an additional 40 million pounds of chlorobenzenes and related chemicals in insecure tanks, pipelines, process vessels and treatment systems.

To evaluate and address the different areas of contamination, EPA divided the site into four parts or "Operable Units" (OUs).

EPA's Region 3 Office has been working with the Delaware Department of Natural Resources and Environmental Control (DNREC) and other state and federal agencies to help clean up the contamination at this site.

Cleanup Progress and Next Steps

Below is a brief description of the work done to date and next steps for each OU:

OU-1 interim (short-term) remedy for contaminated groundwater**:**

- Groundwater monitoring wells were installed and quarterly sampling has been ongoing since 2004.
- In 2007, EPA installed a pump-and-treat system that uses multiple wells; replacing the previous ineffective onsite wastewater treatment system that was operated by the facility before EPA took over the cleanup at the site.
- A sub-surface barrier wall was designed and constructed to help keep contaminated ground-water from migrating. Barrier wall construction was completed in June 2007.
- Both the pump-and-treat system and the barrier wall will remain in place, operate, and be evalu-ated for use in the OU-4 remedy.

OU-2 addresses contaminated soils and sediments contaminated by historic spills:

- Historic spill areas of the site included the rail car loading area on the west side of the site, as well as the west-central portion of the site, where several aboveground storage tanks collapsed.
- Contamination from these spills flowed north and west into wetlands near Red Lion Creek. A total of approximately 40 acres was impacted by these spills.
- EPA is developing work plans for OU-2 as other cleanup activities are underway.

OU-3 long-term remedy for contaminated soils and soil-gas in the former plant area.

In order to address contaminated soils and related soil-gas in the area where the manufacturing plant used to stand, the OU-3 proposed cleanup plan consists of:

- capping approximately 23 acres of surface soil and
- connecting that cap to the sub-surface barrier wall completed in 2007.

EPA is currently reviewing and carefully considering all comments that were submitted during the public comment period for the OU-3 proposed cleanup plan.

Comments submitted to EPA about the OU-3 proposed cleanup plan, along with EPA's responses to those comments, will be included in the "Responsiveness Summary" section of the Record of Decision (ROD). A ROD is a document EPA writes to explain the cleanup option that has been picked for a site, as well as the basis for selecting that cleanup method.

EPA will run a public notice in the local newspaper announcing when the ROD and Responsiveness Summary are complete (which is estimated to be by the end of summer 2010).

BEFORE
Totes in storage awaiting transportation to a licensed disposal facility.
August 2004

OU-4 long-term remedy for contaminated groundwater:

- The U.S. Geological Survey (USGS) is working with EPA on an aquifer study. This study is separate from the on-site groundwater monitoring.
- In 2009, EPA installed several new wells to investigate deeper groundwater contamination underneath and next to the facility, specifically looking for site-related contaminants, such as benzene.
- As expected, contamination was detected in two of the new wells that EPA installed in an effort to confirm the location of suspected contamination. This contamination was found within 600 feet (~ one tenth of a mile) of the former Metachem plant. Other new wells also located near the former facility, but deeper below ground surface, did not show contamination.
- The level of benzene and chlorobenzene contamination EPA is finding is considered high; however, the area of concern is located far from public drinking water supplies and is not impacting drinking water quality. EPA and DNREC will continue to monitor these new wells closely.
- EPA and DNREC plan to install more monitoring wells in 2010 and conduct additional tests as the study continues. EPA plans to complete the groundwater study and select a long-term remedy by 2012.

The American Recovery and Reinvestment Act of 2009 (ARRA or "Recovery Act")

Cleanup work at this site is being partially funded by the American Recovery and Reinvestment Act (ARRA or "Recovery Act"). EPA received over $2.5 million in "stimulus money" to remove the last of the bulk liquid chemicals (see BEFORE and AFTER photos) and to upgrade the groundwater treatment system (this work is ongoing).

The funding made it possible for these tasks to be started and/or completed in a shorter period of time than without the funding. It has allowed us to accelerate the cleanup of the groundwater at the site.

- Disposal of the remaining 800 containers of bulk liquid chemicals ("totes") was completed in summer 2009 using the Recovery Act funds, which is almost three years ahead of schedule.

- The groundwater treatment system has been operating since June 2007 and will continue running using Recovery Act funds. Recovery Act funds were also used for treatment plant upgrades to optimize operations. These upgrades have resulted in a doubling of the rate at which contaminated groundwater can now be treated by the system.

AFTER
All totes have been removed for off-site disposal
July 2009

For More Information

Online Resources:
http://www.epa.gov/reg3hwmd/npl/DED041212473.htm

http://www.awm.delaware.gov/Pages/Metachem%20cleanup%20update.aspx

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