



# U.S. Environmental Protection Agency

## Fact Sheet # 17

### Standard Chlorine of Delaware (aka Metachem) Site



Delaware City, New Castle County, Delaware

#### Superfund Site Cleanup Progress Update

September 2007

The U.S. Environmental Protection Agency (EPA) has used both its Removal and Remedial Programs in the cleanup effort at the Standard Chlorine of Delaware Superfund Site (the Site), also known as the Metachem Site, located in Delaware City, New Castle County, Delaware. EPA's Remedial Program focuses on long-term cleanup remedies. The Removal Program focuses on removing immediate potential Site-related risks. This fact sheet provides an update on the cleanup progress at the Site.

#### Groundwater Remedy Construction Completed

Groundwater cleanup activities include a subsurface barrier wall around the Site and a system to pump and treat the contaminated groundwater inside the barrier wall. Construction of the barrier wall was completed in May 2007. The barrier wall, ranging from 45 to 75 feet deep, surrounds the former chemical plant and adjacent areas that were identified as the source of the contaminants. The variation in depth corresponds with a subsurface layer of clay in the soil. The barrier wall is part of the interim groundwater remedy. The other part of the remedy is a system to pump and treat the contaminated groundwater inside the barrier wall. The pump-and-treat system construction was completed in June 2007. Groundwater is blocked from migrating by the barrier wall and drawn into the onsite pump-and-treat system. The contaminated groundwater is treated and the cleaned water is discharged to the surface outside the barrier wall, where it flows overland into Red Lion Creek. Treated water must meet state standards before discharge.



*Beginning of barrier wall construction, July 2006*

## Additional Work

Approximately 1.3 million gallons of bulk liquid chemicals are being removed from the Site. These chemicals were managed by EPA's Removal Program. A portion was returned into commerce and the remainder will be incinerated at an off-site location. The chemicals to be incinerated are solidified in portable transport containers called totes. Disposal of the chemicals in the totes began in January 2006 and is now nearly halfway completed. Tote disposal is expected to continue until 2010.

EPA is conducting several additional activities, some on-site and some off-site:

- ◆ Operation of the newly-completed groundwater pump-and-treat system;
- ◆ Remedial Investigation of soils on the former plant;
- ◆ Continued groundwater monitoring;
- ◆ Continued study of the groundwater in the Potomac Aquifer beneath the Site;
- ◆ A study of In-situ Chemical Oxidation, which is a promising technology for treatment of contaminated soils and sediments.



*Northern view across the Site where abandoned chemical tanks and buildings once stood, July 2007*

## Comprehensive Groundwater Study

EPA and the Delaware Department of Natural Resources and Environmental Control (DNREC) are continuing the Potomac Aquifer groundwater study with representatives from the Delaware Geological Survey. The study includes:

- ◆ Monitoring groundwater quality regarding Site-related contaminants;
- ◆ Gathering groundwater flow information, such as direction and flow rate;
- ◆ Exploring the possibility of a connection, or passage, between the Columbia and the Potomac Aquifers;
- ◆ EPA and DNREC will continue to investigate groundwater quality and monitor the Potomac Aquifer.

Sampling data is available online at: <http://pubs.water.usgs.gov/wdr2006>. Search under State: DE, County: New Castle. The listing under "Groundwater Sites" refers to the Potomac Aquifer Study wells.



## On-Site Removal Activities Completed

EPA's Removal Program actions at the Site were completed in September 2006. EPA and DNREC removed millions of pounds of chemicals from the Site.

The Removal Program's work included:

- ◆ Returning over 18 million pounds of product for use in commerce;
- ◆ Removing approximately 14.5 million pounds of chemical wastes for proper disposal;
- ◆ Decontaminating on-site equipment and piping by steam-cleaning and removing any chemical residue;
- ◆ Dismantling on-site facility buildings and structures such as tanks, piping, and related equipment;
- ◆ Recycling or disposing of on-site debris, building materials, and structure materials; and
- ◆ Disposing of stored chemical wastes.



*Stabilized slope at north end of Site, July 2007*

### For More Information

Site information is available on the following websites:

- ◆ [www.epa.gov/reg3hwmd/super/sites/DED041212473/index.htm](http://www.epa.gov/reg3hwmd/super/sites/DED041212473/index.htm)
- ◆ [www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp](http://www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp)
- ◆ [www.epaosc.net/Metachem](http://www.epaosc.net/Metachem)

This, and previously mailed fact sheets, are available for review online and are also available at the **Delaware City Public Library**, located at 250 Fifth Street, Delaware City, DE 19706.

If you have additional questions, please contact one of the following representatives:

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**EPA Update on the Standard Chlorine of Delaware (aka Metachem) Site**

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