



U.S. Environmental Protection Agency

Fact Sheet # 21

Standard Chlorine of Delaware (aka Metachem) Superfund Site



New Castle County, Delaware

— Soil Bentonite Containment Barrier Repair Work to Begin —

February 2015

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 New Castle County, Delaware. EPA has been cleaning up the Site in four separate parts called “operable units” or OUs. This fact sheet outlines the overall cleanup progress and upcoming OU-1 maintenance work.

UPCOMING OU-1 ACTIVITIES

EPA is Working to Stop Infiltration

This spring, EPA will restore areas of the soil bentonite containment barrier wall, or “barrier wall” that have shown signs of infiltration from groundwater outside of the contaminated groundwater plume.

The barrier wall is a subsurface, vertical barrier around the Site that helps keep the contaminated groundwater plume from migrating off-site and allows the pump-and-treat system to work efficiently. It is also sometimes called a “slurry wall.”

The barrier wall has been highly effective by containing contaminated groundwater inside of it that enables more effective and efficient treatment.

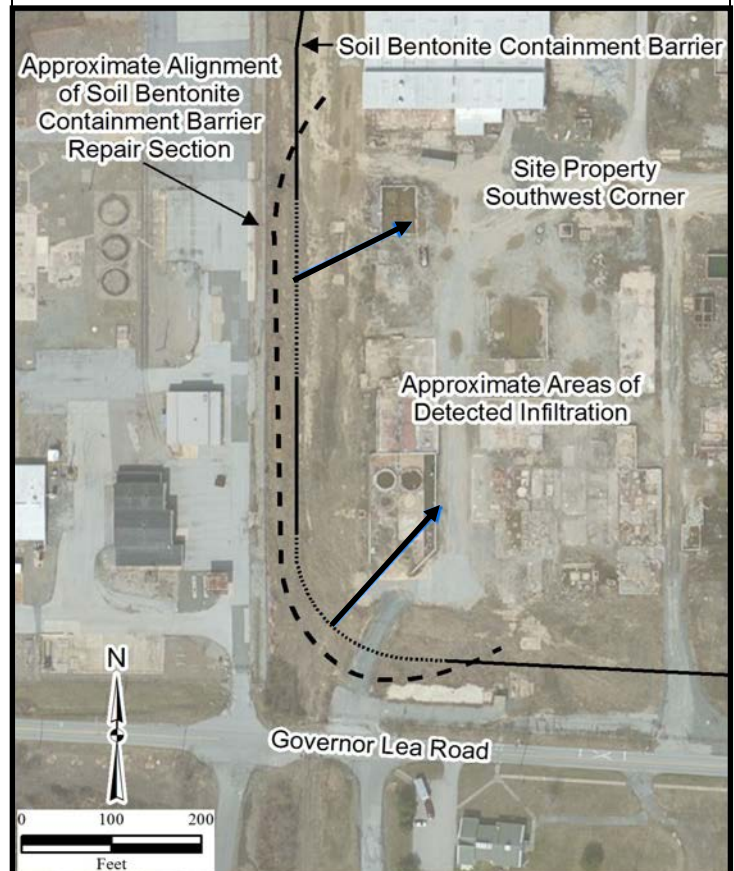
During cleanup operations, EPA detected groundwater entering the barrier wall. This water entering the confined area does not contain Site contaminants. It is, however, adding to the volume of water that is being treated, which affects the treatment system’s efficiency. Repairing the wall will improve efficiency, and in doing so, also reduce long-term costs for groundwater treatment.

This spring, EPA will repair the section of the barrier wall in the southwest corner of the Site where infiltration has been detected.

WHAT YOU MAY NOTICE

Work on the barrier wall is estimated to begin in spring 2015. Once work begins, you may notice an increase in large equipment and truck traffic coming to and from the Site work area. The repair work will involve the use of large trenching equipment. Traffic controls will be used to help ensure minimal impact from the work trucks or equipment.

Photo below: Diagram of upcoming repair work area



OPERABLE UNIT WORK DONE

Below is a brief description of the cleanup activities for each of the four Operable Units (OUs).

OU-1: Interim (short-term) remedy for contaminated groundwater.

- Groundwater monitoring wells were installed and sampling has been ongoing since 2004.
- In 2007, the sub-surface barrier wall was constructed to help keep contaminated groundwater from migrating off-site.
- In 2007, EPA installed a pump-and-treat system to collect and treat the contaminated groundwater contained within the barrier wall.
- Ongoing monitoring helps to evaluate the system's effectiveness.

Both the pump-and-treat system and the barrier wall will remain in operation and also be evaluated for use in the OU-4 remedy.

OU-2: Addresses soils and sediments contaminated by historic spills.

- Historic spill areas of the Site included the rail car loading area where several above-ground storage tanks had collapsed.
- Contamination from these spills flowed into wetlands near Red Lion Creek. Approximately 40 acres were impacted by these spills.
- EPA is developing work plans for OU-2 as other cleanup activities are underway.

OU-3: Addresses the long-term remedy for contaminated soils and related soil-gas in the area where the manufacturing plant used to stand.

The OU-3 cleanup Remedial Design phase is completed. Next, the Remedial Action (RA) phase will implement the designed cleanup plan.

The designed cleanup plan consists of:

- Constructing a 22.7 acre multi-layer soil and geosynthetic material surface cap;
- Installing a soil-gas collection and treatment system, and;
- Installing a surface cover of topsoil to support native vegetation.

Work is estimated to begin this spring. Before work begins, EPA, along with the Delaware Department of Natural Resources and Environmental Controls (DNREC), will hold a community briefing to discuss the cleanup plans in detail. An announcement will be published in the *News Journal* newspaper with the date, time and location of the briefing.

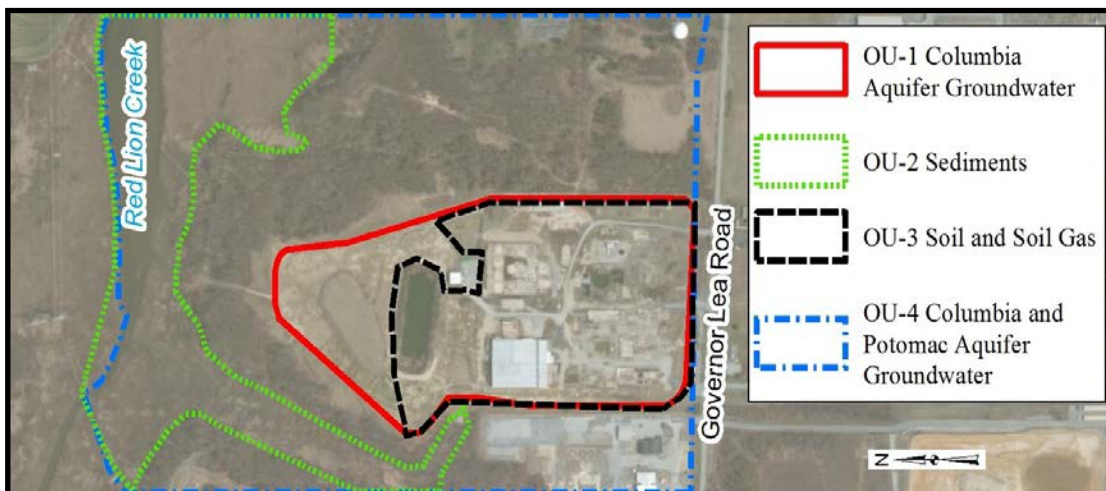
OU-4: Long-term remedy for contaminated groundwater.

- EPA, working with DNREC, has installed a network of 21 groundwater monitoring wells to evaluate the deeper groundwater at and near the Site. Contamination has been detected in the connected (unconfined) sections of the multi-layer, deep aquifer beneath the Site.
- The level of benzene and chlorobenzene contamination EPA detected onsite is considered high however, ongoing monitoring of public drinking water wells shows no impact to water quality from Site contaminants. EPA and DNREC will continue to monitor these wells closely.
- EPA installed additional monitoring wells to help complete the aquifer study. The study is estimated to be completed in 2015. This study will be used in developing a proposed long-term remedy for contaminated groundwater.

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 federal Superfund cleanup money.
- EPA has taken responsibility for the Site cleanup since there is no viable Potentially Responsible Party (PRP). In 2002, the Site's owner declared bankruptcy and abruptly closed the facility, leaving approximately 40 million pounds of chlorobenzenes and related chemicals in deteriorating tanks, pipelines, process vessels and treatment systems.
- To address the most hazardous materials, EPA and DNREC removed millions of pounds of abandoned chemicals from the Site. Cleanup activities performed under EPA's Removal Program were completed in September 2006.
- DNREC has provided a 10 percent cost share for cleanup actions and will provide long-term monitoring oversight.
- The U.S. Geological Survey (USGS) has been working with EPA on a study of the aquifer. This study is separate from the onsite groundwater monitoring.
- The USGS and DNREC are also assisting EPA to determine potential cleanup options for the wetland area of the Site.

Photo below: Diagram of the Site's four operable units (OUs). Some OUs overlap each other.



More Information is Available On-line at:

www.epa.gov/reg3hwmd/npl/DED041212473.htm

or

<http://www.dnrec.delaware.gov/dwhs/Pages/Metachem%20cleanup%20update.aspx>

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