



**DNREC/EPA - Fact Sheet #12**  
**January 27, 2004**



**Metachem Products, LLC**  
**Delaware City, Delaware**  
**Remedial and Removal Program Update**

This fact sheet provides an update of the various on-going EPA and DNREC cleanup activities at the Metachem site. Both the EPA Remedial Program (conducting the long-term cleanup of contamination at the site), and the EPA Removal Program (conducting the short-term emergency response actions to eliminate the immediate site hazards) continue to make strong progress on the cleanup.

***Remedial Program Update***

The EPA Remedial Program is moving forward with investigation and design activities related to the cleanup of past spills at the facility. An update of the remedial program activities follows:

**On-going Groundwater Quality Evaluation** – EPA / DNREC installed a new Potomac aquifer monitoring well near the main plant site in Fall 2003 and tested other Potomac wells as part of a early warning program to monitor and protect the water quality of this important water supply aquifer. Samples from this well show that site related contaminants are present (benzene (9 – 16 parts per billion (ppb)), chlorobenzene (6 – 16 ppb), chloroform (1-2 ppb), para-dichlorobenzene (2 ppb) and ortho-dichlorobenzene (2 ppb). This is the first evidence of site-related contamination in the Potomac aquifer. DNREC has notified the local water companies about the findings, and their routine water testing indicates this contamination is not reaching anyone's drinking water supply. EPA and DNREC are studying the contamination, and will resample existing Potomac aquifer wells in the area (including several water supply wells), as well as install more Potomac aquifer wells on-site.

**Groundwater Remedy Design** – EPA continues to move forward with the design of the system that will keep the groundwater contamination in the Columbia aquifer from spreading away from the site. The draft remedial design plans were submitted for EPA review in December 2003. EPA expects to complete remedial design plans in Spring 2004, and start construction of the containment system in late 2004.

**Record of Decision (ROD) Amendment for Chlorinated Benzene Compound (CBC) Liquid Disposal** - EPA is currently developing an amendment to the ROD to address the disposal of CBC liquids that are currently stored on-site. The ROD amendment will likely designate off-site disposal for this material. When the amendment has been completed, EPA will publish the ROD Amendment Proposed Plan for public comment.

**Soil/Sediment Treatability Study** - As discussed in Fact Sheet #11 (August 29, 2003), EPA is undertaking a Focused Feasibility Study (FFS) to evaluate newer, more efficient technologies for the cleanup of on-site soil and sediment contamination. A treatability study is now underway to evaluate one of these new technologies -- chemical oxidation. If this study is successful, a six-to-twelve month on-site field trial will be done to test the technology. If these studies show that the process will work, EPA will propose another amendment to the current ROD, which will then be open to public comment.

**Facility Remedial Investigation/Feasibility Study (RI/FS)** – EPA is planning a new multi-year study of the nature, extent, and impacts of the contamination at the site. The study will focus on the main plant facility and other areas not previously investigated in detail during the 1993 RI Study, and will include dioxin sampling. EPA is currently reviewing the work plan, and fieldwork is expected to be in Spring 2004.

**NOTICE OF PUBLIC MEETING**

**Wednesday February 4, 2004 – 7:00 p.m. – 9:30 p.m.**

**Southern Elementary School - 795 Cox Neck Road – Delaware City, DE**

**EPA / DNREC will hold a public meeting to discuss current and future Metachem Removal and Remedial Program Activities with the community and to answer questions. Topics will include:**

- **Upcoming Remedial Program Groundwater Activities**
- **Current Removal Program Cleanup Statistics**
- **Recent Commerce Activities in the United States and Mexico**
- **Question and Answer Period**

## Removal Program Update

EPA and DNREC have focused their efforts in the last few months on winter preparation and off-site transfer of chemicals and wastes. An update of the various removal program activities follows:

**Summary of Major Removal Accomplishments** – EPA / DNREC have made great progress reducing the major risks posed at the Metachem facility site by removing the most hazardous materials from the site. Bulk chemicals have been removed from over 60 tanks, seven process columns and associated equipment have been cleaned, and over 70,000 gallons of sludge has been removed from the process drainage basins. The table below summarizes how some of the most risky materials have been managed since the emergency action began in May 2002:

<b>Products Shipped Off-Site for Commercial Use</b>		
234,657 gallons	Benzene	Used in Manufacturing
168,463 gallons	Chlorinated Benzenes	Used in Manufacturing
<b>Liquids Treated On-Site</b>		
61,000,000 gallons	Rainwater/Non-Hazardous Wastewater	On-Site Treatment
<b>Wastes Shipped Off-Site for Disposal</b>		
9,800 gallons	Hydrochloric Acid	Neutralization
20,093 gallons	Benzene mixtures	Incineration
43,897 gallons	Ethylene Glycol	Incineration/Treatment
5,213 gallons	Diethyl benzene	Incineration
40,934 gallons	Chlorinated benzene mixtures from tanks	Incineration
16 roll offs (55 tons)	Hazardous Debris, Sludge Cake, Etc.	Landfill Disposal
5,000 gallons	Chlorinated benzene mixtures and other hazardous liquids from drums	Incineration

**Chlorinated Benzene Removal/Separation Project (CR/SP)** - The CR/SP commenced operations on July 17, 2003 and continued through October 28, 2003, when operations were suspended as part of the resetting of removal priorities at the onset of cold weather. The project successfully separated about 70 percent of the total CBC mixture at the plant site. Over 1.6 million gallons of mixed CBC material were separated into nearly 870,000 gallons of lower melting point CBC liquids (currently stored in secure tanks pending off-site removal), and 720,000 gallons of solid higher melting point CBC and PCB (placed in 2,525 totes currently stored inside a site warehouse pending off-site disposal). EPA has cleaned and decontaminated the distillation columns and other CR/SP equipment for winterization and/or future use. The boilers have also been shutdown and replaced with a portable boiler system to heat chemical storage areas throughout the winter.

**Small Containers Removal** - DNREC coordinated the removal of over 520 small containers of miscellaneous wastes, outdated products, and other unusable materials from the site in October 2003. DNREC is now developing a removal plan for the 600+ 55-gallon drums containing various types of CBC liquid and solid wastes currently secured in a contained outside storage area. Off-site disposal of these wastes is expected in Summer 2004.

**Wastewater Treatment Plant (WWTP) Shutdown** – EPA completed pressure washing and cleaning rainwater containment areas, catch basins, and other pads and structures, and shut down the facility wastewater treatment plant. Carbon filters, which are more efficient and easier to operate, have replaced the plant. All rainwater falling on active or contaminated areas of the site will be treated through the carbon filter systems prior to discharge. All rainwater falling on cleaned areas will be diverted and no longer collected for treatment.

EPA will continue decontamination and waste consolidation activities throughout Winter 2004, as well as conduct air monitoring on a daily basis. Weekly updates on the progress of the removal operations can be found on the EPA On-Scene Coordinator (OSC) web site at: [http://www.epaosc.net/doc\\_list.asp?site\\_id=03H6](http://www.epaosc.net/doc_list.asp?site_id=03H6)

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For additional information about the project, visit the following websites:

**EPA's web sites:** [www.epaosc.net/Metachem](http://www.epaosc.net/Metachem) and [www.epa.gov/reg3hwmd/super/DE/standard-chlorine-de/](http://www.epa.gov/reg3hwmd/super/DE/standard-chlorine-de/)  
**DNREC's web site:** [www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp](http://www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp)