

December 2008 Update

Chemical Sales Company Superfund Site

Commerce City, Colorado
(Review Date: 8/22/2007)

*H*ighlights Since the 2007 Five-Year Review

- **Fenton's reagent injected into subsurface to facilitate biodegradation of VOCs by anaerobic dechlorination during throughout 2007.**
- **CDPHE checks status of 4 residents, who elected not to be connected to municipal water, for possible exposure to contaminated groundwater**

Brief Site History: The Chemical Sales Company (CSC) site covers about five square miles in a mainly light-industrial area of northeastern Denver. The company was a wholesale distributor of commercial/industrial chemicals, detergents and water leisure products. Groundwater studies by EPA led to the discovery of CSC as a source of volatile organic compound (VOC) contamination in the area. The 1990 Risk Assessment showed that use of the contaminated groundwater for drinking, cooking or bathing could increase the chance of developing cancer. Breathing indoor air poses a potential risk if residents use the contaminated water for showering, bathing or cooking.

A June 4, 1987 Record of Decision (ROD) for the area, then known as "EPA's Off-Post Rocky Mountain Arsenal Operable Unit 1 (RMA OU1)," called for a permanent water treatment plant, resulting in the construction of the Klein Water Treatment Facility. After the CSC site was proposed for listing on the National Priorities List (NPL) in June 1988, investigations for all EPA RMA Off-Post work were transferred to the CSC site. The NPL listing was made final in August 1990. Under the auspices of the RMA Site, a five-year review was conducted in 1992 confirming that the pre-site remedial actions associated with the 1987 ROD were adequately protective of human health and the environment.

Cleanup Activities Completed: A number of cleanup activities have been completed since 1986, including the following:

- Connection of over 400 residences to the South Adams County Water and Sanitation District (SACWSD) municipal supply in 1986, 1992 and 1995.
- Construction of the Klein Treatment Plant for SACWSD in 1989.
- Removal of leaking and corroded drums from the CSC property in 1989.
- Construction of an air sparging/soil-vapor extraction (AS/SVE) system in 2000 to clean up the source area.

- Active remediation formally transitions to in-situ chemical oxidation (ISCO) with the signing of the June 2007 ESD.

Current Status: Current Operation & Maintenance activities include operating the system and monitoring groundwater throughout the site. The third five-year review of the remedial actions implemented at CSC was completed August 22, 2007. EPA solicited public comment and notices were placed in the local newspaper notifying the community when the five-year review was in process.

Summary of Protectiveness: The remedy at the CSC Superfund Site is expected to be protective of human health and the environment and, in the interim, exposure pathways that could result in unacceptable risks are being controlled. The former AS/SVE System operated as designed, but was no longer cost effective in collecting appreciable amounts of VOCs particularly in the area south of the Trammell Crow Building. With the signing of the June 2007 ESD, active remediation formally transitioned from AS/SVE to ISCO. The contamination of the groundwater, underlying OU 2, has remained within predicted plume boundaries. Except for four residents that elected not to be connected in 1992, residents and businesses in the area are connected to the municipal water supply.

Issues Impacting Protectiveness: A few issues that do not immediately impact the protectiveness of the remedy were noted. The following table summarizes the status of the follow-up actions addressing these issues.

**Chemical Sales Company Superfund Site
Five-Year Review Update Table
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Issues	Recommendations Follow-up Actions	Follow-up Actions (Status/ Due Date)	Status of Follow-up Actions 12/08	Responsible Party
1) Contamination under and around the Trammell Crow Building (just west of the CSC property) is not decreasing as quickly as the other areas of contamination. VOC concentrations in monitoring wells around the building are relatively very high.	Multiple Injections of modified Fenton's reagent into the subsurface to facilitate biodegradation of VOCs by anaerobic dechlorination of VOCs are scheduled to begin by late summer of this year. The area of interest will center on the Trammell Crow Building just west of the CSC property.	4 th Quarter 2007.	The fifth and final injection was completed in Nov 2007. Results from quarterly sampling are currently being evaluated.	CDPHE

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<p>2) Outside of the CSC property, institutional controls (ICs) are not in-place to restrict use of contaminated groundwater and construction of water wells within site boundaries.</p>	<p>EPA and CDPHE will begin working with local governments in the Fall of 2007 to secure the necessary permanent ICs through the establishment of an overlay district or ordinances that restrict groundwater use and the construction of water wells within the boundaries of the site.</p>	<p>4th Quarter 2010</p>	<p>Evaluation process was begun with a meeting between EPA, CDPHE and Tri-County Health on Feb 12. In mid-2008, the agencies agreed that SACWSD had the authority to implement & enforce the necessary ICs.</p>	<p>CDPHE and EPA</p>
<p>3) During the implementation of the OU3 remedy, owners of four residences within OU2 boundaries elected not to be connected to the municipal water supply.</p>	<p>CDPHE will need to double check the status of the four residents to determine if there is any potential exposure to contaminated groundwater.</p>	<p>1st Quarter 2008</p>	<p>In May 2008, it was found that all of the residents were connected to the water supply except one. The sole resident was notified of the contaminated plume in Sept 2008.</p>	<p>CDPHE</p>