

## Region 3 GPRA Baseline RCRA Corrective Action Facility

# Miller Springs Remediation Management Inc. (Formerly: Occidental Chemical Company)

301 West Dupont Avenue  
Belle, WV 25015  
Congressional District 2  
EPA ID #: WVD005010277  
Last Updated: 12/12/2008

## Current Progress at Site

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In September 1992, the Occidental Chemical Company (OxyChem) and Environmental Protection Agency (EPA) entered into an Administrative Order on Consent to conduct a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) and a Corrective Measures Study (CMS) and to perform Interim Measures (IMs), as necessary, at the Facility. The RFI was implemented in two phases: The purpose of Phase I, which was completed in July 1998, was to evaluate whether soil and groundwater quality was impacted by the solid waste management units located on facility property. Phase I field work included extensive surface, subsurface soil and groundwater sampling, aquifer testing, geophysical studies and collection of sediment and surface water samples. The results of Phase I work indicated that there are two broad source areas, the Production Area and Area 7. The Phase II RFI was designed to expand on the Phase I RFI work by further investigating soil and groundwater quality associated with these sources. In addition, Phase II evaluated the potential ecological impact from releases at the site, and included other data collection activities, such as additional surface soil analysis, necessary for the completion of the RFI. Phase II work was initiated in the spring of 1999 and completed by the summer of 2000. The potential human health and ecological risks posed by the site were evaluated for various exposure scenarios. This evaluation was completed in 2003 and EPA approved the Final RFI in February 2004. EPA also approved the Human Health Indicator in 2004.

Due to the site's complexity, EPA and OxyChem decided the best path forward for the facility would be to implement interim measure cleanups, prior to selecting a final remedy. OxyChem is currently implementing two interim measures. One interim measure is an in-situ enhanced bioremediation technology in the former plant production area (the Production Source Area), begun in the Summer of 2004. Numerous wells introduce a dilute molasses solution into the aquifer in the Production Source Area. The molasses provides a food source to indigenous microbes that can biodegrade the primary site contaminants. To facilitate distribution of the molasses solution, OxyChem enhanced permeability of the subsurface through hydro-fracturing. The other interim measure is a sheet pile wall, keyed into bedrock, located near the confluence of Reynolds branch and the Kanawha River. OxyChem installed the wall in the Fall of 2005.

OxyChem installed the wall to contain an area impacted by dense non aqueous phase liquid (DNAPL). The wall surrounds an area about 1.5 acres in size. In the Fall of 2006, after construction of these interim measures, OxyChem began regrading large portions of the site.

Following the wall's installation, two technical issues arose: 1) OxyChem detected DNAPL in a bedrock well located upgradient and outside the wall. Additional field work indicates that this is an area of limited impact. This well continues to be monitored on a monthly basis; and 2) the performance monitoring network showed that there was a leak in the wall. In the Spring of 2007, OxyChem installed 4 additional wells to assess the situation. Data collected from these wells is being evaluated and will be discussed in a meeting with the USEPA to determine an appropriate final remedy for this portion of the site.

## **Site Description**

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The former OxyChem facility is located in Belle, West Virginia, approximately 15 miles southeast of Charleston, West Virginia, on a 23-acre site adjacent to the Kanawha River. The Belle Facility is located in a mixed industrial/residential area, which includes the DuPont Belle plant located immediately adjacent to the site's northern property boundary. Chemical production operations began at the site in 1920 by Belle Alkali Company and continued through a succession of owners and tenants until OxyChem purchased the facility in 1986. OxyChem manufactured multi-product chloromethanes from chlorine until the plant shutdown in October 1994. All process equipment and buildings have been taken down and removed from the site.

## **Site Responsibility**

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RCRA Corrective Action activities at this facility are being conducted under an EPA Section 3008(h) Corrective Action Order.

## **Contaminants**

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Volatile organic compounds are the main constituents found in the site's soil and groundwater. These compounds primarily consist of methylene chloride, chloroform, and carbon tetrachloride. Semi-volatile organic compounds and metals were also detected.

## **Community Interaction**

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OxyChem is actively involved in the Community Action Committee established jointly by DuPont and OxyChem to address citizen's concerns about the site safety, health and environmental performance and review related topics. The Committee is composed of citizens

from neighboring communities and plant personnel. Programs like the RFI are typically reviewed in the team's monthly meetings. OxyChem representatives attend these meetings and share pertinent information about the activities at the site. EPA provides periodic updates to the group on the status of the cleanup.

## **Institutional Controls**

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Institutional Controls have not been implemented at this site. However, they will be implemented as part of the final remedy.

## **Government Contacts**

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## **Facility Contact**

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