

# **Union Carbide Corp. - South Charleston Facility**

## **(A Subsidiary of The Dow Chemical Company)**

**437 MacCorkle Avenue, SW  
South Charleston, WV 25303  
Congressional District 2  
EPA ID #: WVD005005483  
Last Updated: 12/19/2008**

### **Current Progress at the Site**

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Union Carbide Corporation (UCC) entered into a Facility Lead agreement with EPA on December 15, 1999 for conducting corrective action at its South Charleston Facility. UCC has evaluated, addressed via Interim Measures, and provided documentation to EPA for areas of known potential for off-site impacts. The initial RFI was conducted in 2002 and 2003. The RFI Report was submitted to EPA and the West Virginia Department of Environmental Protection (WVDEP) in December 2003. The RFI focused on collection of data pertinent to evaluation of the Human Health Environmental Indicator (EI) (i.e., surface soil data) and Groundwater Migration EI (i.e., perimeter groundwater data). A Follow-up RFI was conducted in 2004 to supplement data collected under the RFI, especially those pertinent to the Human Health and Groundwater Migration EIs. To meet the Human Health EI, an interim measure was completed in June 2005 at SWMU 1 to isolate surface contamination from potential human exposure. Based on the RFI information and the implementation of the interim measure, the Human Health EI was submitted in August 2005 and the Groundwater Migration EI was submitted in July 2005. Both EIs were approved by USEPA in September 2005.

Since 2006, RFI work has focused on a sitewide approach to fill remaining data gaps for soil and groundwater. The first phase of the Sitewide RFI for soil and groundwater was performed in 2006 and early 2007. Later in 2007, UCC performed the second phase of the Sitewide RFI for soil and groundwater. In 2008, RFI data collection activities turned to the Kanawha River, with a comprehensive Kanawha River investigation that included surface sediment, subsurface sediment and pore water sampling; as well as background sampling for those media. Also in 2008, data collection took place at the site to evaluate potential exposure to indoor air via vapor intrusion. As of late 2008, the evaluation and risk assessment using these data continue.

In addition to the above RFI work, in 2007, UCC began interim measure (IM) planning for the Mainland based on the overall results of the RFI to-date. The outcome of this process is an understanding of the range of remedial technologies that may be applicable. This process also identified some data collection needs to support the remedial technology evaluation, selection and design process. Collection of these "predesign" data continues in late 2008 on both the Mainland and Blaine Island.

The IM planning process has identified several viable remedial technologies for the Mainland, and further evaluation began in 2008 by bench testing several chemical oxidants, and pilot testing the aerobic cometabolic biodegradation (ACB) technology at the Lower Mainland.

Injection of the ACB substrate, Soy Gold®, will occur in early 2009, and remedy decisions for the Mainland will follow.

## **Site Description**

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UCC's South Charleston Facility is located adjacent to the Kanawha River in South Charleston, West Virginia. The site is approximately 205 acres, and consists of the Mainland and Blaine Island. The facility has been in continuous operation since the early 1920s. Currently, most of the plants produce specialty chemicals, such as surfactants, de-icers, and lubricating fluids.

Portions of the Mainland have transferred to new ownership.

## **Site Responsibility**

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RCRA Corrective Action activities at this facility are being conducted under the direction of EPA Region 3 with assistance from the West Virginia Department of Environmental Protection.

## **Contaminants**

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Based on current information, there are no known imminent threats to human health or the environment from the UCC South Charleston Facility. The facility is used exclusively for industrial purposes, and neither the Kanawha River nor the local groundwater is used for drinking water. Several of the primary constituents of potential concern are bis(2-chloroethyl)ether, bis(2-chloroisopropyl)ether, bis(2-ethylhexyl)phthalate, naphthalene, benzene, chlorobenzene, 1,4-dioxane, vinyl chloride, dichloropropane and trichloroethene. Additional evaluation of potential risks will be conducted as data are gathered as part of the Facility Lead Program.

## **Community Interaction**

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A Community Relations Plan was prepared and presented to EPA and the UCC South Charleston Area Community Advisory Panel (CAP) as part of the Facility Lead Agreement. Communication to the public relies heavily on interaction with the CAP, which meets regularly. The CAP comprises interested members from the surrounding community. As outlined in the Community Relations Plan, work associated with the Facility Lead Agreement is routinely shared with the CAP.

## **Government Contacts**

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For more information about EPA's corrective action webpage, including Environmental Indicators, please visit our site at: [www.epa.gov/reg3wcmd/correctiveaction.htm](http://www.epa.gov/reg3wcmd/correctiveaction.htm)

## **Facility Contact**

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