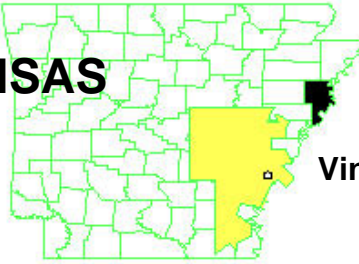


SOUTH 8TH STREET LANDFILL (CRITTENDEN COUNTY) WEST MEMPHIS, ARKANSAS

**EPA REGION 6
CONGRESSIONAL
DISTRICT 01**

**EPA ID# ARD980496723
Site ID: 0600184**



**Contact:
Vincent Malott 214-665-8313**

Updated: December 2009

Current Status

The South 8th Street Landfill Site was deleted from the Superfund National Priorities List in September 2004, following completion of all remedial actions at the Site. Routine operation and maintenance activities are not required for this site and the property is available for reuse and redevelopment by the landowners consistent with the institutional controls implemented for the affected properties. The next site inspection is scheduled for December 1, 2009.

The Second Five-Year Review report was completed on June 16, 2009. The final report is posted on the EPA Region 6 Superfund website (see Five Year Reviews under Superfund Quick Finder) and is available at the information repository in West Memphis, Arkansas. The protectiveness determination from the second five-year review is that the Site remains protective of human health and the environment because the remedial actions completed at the source and ground water operable units achieved the remedial action objectives and goals; there is no new current exposure pathway for the treated waste material in the former oily sludge pit or the landfill contents based on current land use; and, the site institutional controls are expected to prevent any future exposure pathway based on the prohibition on excavations and drilling within the specified landfill areas. The recommended actions from this second five-year review include annual site inspections to monitor future property redevelopment activities and verify compliance with the land use restrictions specified in the Site institutional controls. Also, an independent assessment of the long-term effectiveness of cement-based stabilization/solidification treatment of contaminated sites is nearing completion by the international Performance Assessment of Solidified/Stabilized Waste-Forms project. The draft report is currently under review by the principal authors, and the findings are not available for inclusion in the Second Five-Year Review Report. The research effort included sampling and analysis of treated material of different ages and with different contaminants from existing treated sites, including samples from the South 8th Street Landfill site. The evaluation of the samples collected from the South 8th Street Site, as well as how the sample results compare with other sites using a cement-based stabilization/solidification treatment process, will be used by the EPA to evaluate the long-term performance of the remedial action. EPA and the Arkansas Department of Environmental Quality (ADEQ) conducted a joint inspection of the site on November 18, 2008. The inspection noted that the current land use was consistent with the institutional control requirements for the property.

Community Involvement

A public notice announcing the completion of the Second Five-Year Review Report was published in the West Memphis, AR and Memphis, TN newspapers the week of June 22, 2009. A public notice announcing the start of the second Five Year Review was published in the West Memphis, AR and Memphis, TN newspapers on December 1, 2008.

Benefits

The oily sludge pit, which was the principal threat waste at the site, was treated via in-situ stabilization/solidification and no longer poses a current health risk. Because the treated waste still contains the hazardous substances, the site is not available for unrestricted use. The landfill contents are covered with 2 feet of soil but still contain hazardous substances, which prevent unrestricted use of the site. The site no

longer poses an ecological risk following completion of the remedial action. Concentrations of arsenic, lead, and manganese are below the site remedial goals in the ground water.

National Priorities Listing (NPL) History

NPL Inclusion Proposal Date: February 7, 1992
NPL Inclusion Final Date: October 14, 1992
HRS Site Score: 50.27
NPL Deletion Proposal Date: July 30, 2004
NPL Final Deletion Date: September 28, 2004

Site Description

The Site is adjacent to the Mississippi River on the two-year flood plain between the St. Francis Levee and the Mississippi River in West Memphis, Arkansas. An estimated 30,400 people live within 4 miles of the site. The site consists of a 16-acre landfill containing industrial and municipal waste and a former 2.5-acre oily sludge pit. The site is subjected to flooding from the Mississippi River between November and May. Surrounding land use consists of an operating RV park and barge terminal operations on the Mississippi River. Within the alluvial aquifer beneath the site, the ground water table ranges from a few feet to 20 feet below the ground surface depending upon the stage of the Mississippi River. Ground water discharges to the adjacent Mississippi River. A clay unit of the Claiborne Group forms the base of the alluvial aquifer at a depth of 150 feet and isolates the alluvial aquifer from the Wilcox aquifer. The City of West Memphis obtains their drinking water supply from wells completed at a depth of 1300 feet in the Wilcox aquifer approximately 2 - 4 miles from the site.

There are no scheduled operation and maintenance requirements for this Site. The stabilized/solidified waste in the former oily sludge pit does not require any maintenance and was designed to remain in-situ based on the stringent treatment standards. The soil cover on the landfill and treated oily sludge pit area does not require mowing or other vegetation control since the vegetation helps to reduce potential erosion during flooding event.

A property easement has been filed for the site property to prevent exposure to ground water and the treated waste and landfill contents. The Consent Decree (Section V.9.a, Section IX.24.b) lodged in the U.S. District Court for the Eastern District of Arkansas in November 1999 and entered in December 2000, specified a property easement, running with the land, that (i) grants a right of access for the purpose of conducting any activity related to the Consent Decree or any other activity related to implementing the ROD, including but not limited to, monitoring; and (ii) grants to the right to enforce the land/water use restrictions listed in the Consent Decree to the United States, the State of Arkansas and its representatives, the other settling defendants, and other appropriate grantees. The land/water use restrictions include: 1) the prohibition on the installation of water wells in the alluvial aquifer until the remedial goals for the ground water operable unit have been achieved; 2) the prohibition on the removal of vegetation from the landfill cover if such removal may result in the subsequent erosion or removal of the soil cover over the landfill or treated material; and 3) the prohibition on the excavation or trenching into the treated material, landfill contents, or the associated soil cover with some exceptions. The William L. Johnson Co. executed the property easement on March 6, 2001. The prohibition on further excavation into the treated material, landfill contents, or soil cover effectively prohibits further well installation at the site due to the site-wide presence of the landfill and the treated oily sludge pit.

Wastes and Volumes

Prior to treatment, the waste in the oily sludge pit was highly corrosive with a pH of less than 2.0. The treated waste is no longer corrosive but still contains lead, PCBs, and carcinogenic poly-aromatic hydrocarbons (PAHs). A total of 19,376 cubic yards of oily sludge and 22,372 cubic yards of ancillary soil were neutralized and treated. Contaminants in the landfill areas of the site include carcinogenic PAHs and several pesticides. The 16-acre landfill has a natural soil cover with a minimum thickness of 2 feet. The

ground water is no longer contaminated. Previous ground water contamination consisted of lead, arsenic, and manganese.

Health Considerations

The oily sludge pit was the principal threat waste at the site but no longer poses a current health risk following the in-situ stabilization/solidification treatment process. Because the treated waste still contains the hazardous substances, the site is not available for unrestricted use. Ground water contaminant concentrations for arsenic, lead, and manganese are below the site remedial goals. The site no longer poses an ecological risk following completion of the remedial action. The discharge of ground water contaminants into the Mississippi River did not adversely affect the water quality of the Mississippi River.

Record of Decision (ROD)

The ROD was signed in September 1994 and the ROD Amendment was signed in July 1998. The 1998 ROD Amendment modified the 1994 remedy by selecting in-situ stabilization/solidification for the oily sludge pit and monitored natural attenuation with institutional controls for the ground water operable unit. Treatment of the oily sludge wastes were required to meet the more stringent performance standards for in-place management of the treated material and protection of the site ground water. The ROD Amendment also modified the scope of the natural soil cover to be installed on the landfill by requiring the installation of a 2-foot thick natural soil cover over part of Area 1 of the landfill and the treated oily sludge pit area in Area 2 of the landfill. The remedy included institutional controls prohibiting the digging or trenching on the property to prevent damage to the soil cover and exposure of the treated material.

Site Contacts

EPA Remedial Project Manager:	Vincent Malott	214-665-8313
EPA Site Attorney:	Anne Foster	214-665-2169
EPA Regional Public Liaison:	Donn R. Walters	214-665-6483
ADEQ Contact	Mark Moix	501-682-0852

EPA Superfund Region 6 Toll Free Number: 1-800-533-3508

Information Repository: West Memphis Public Library

Site Maps

The site is located on the Mississippi River floodplain and is separated from the City of West Memphis by the St. Francis levee.



The site features are illustrated in the following figure.



The figure below illustrates the boundary (light green) of the property easement with property use restrictions in Areas 1, 2, and 3 of the Site.

