

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



**EPA REGION 6
CONGRESSIONAL
DISTRICT 01**

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

**Contact:
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**NPL Deletion: 2004
Last Updated: May 2015
Next Update: February 2016**

**Effective October 1, 2015 this Site Status Summary will be replaced with a new site profile.
The new site profile will be available at: www.epa.gov/superfund/south-8th-street-landfill**

Current Status

The next site inspection will be scheduled for November 2018, unless additional inspections are necessary to assess potential impacts from natural disasters. The fourth five-year review is scheduled for completion in May 2019. The third five-year review site inspection was completed on November 7, 2013, and no issues were identified concerning compliance with the land use restrictions specified in the Site institutional controls. The Third Five-Year Review report was completed on May 16, 2014, and is available at the following link: http://www.epa.gov/region6/6sf/arkansas/south8_street/ar_south8_street_3rd-5yr_review.pdf. The protectiveness determination from the third five-year review is that the Site remains protective of human health and the environment because 1) the remedial actions completed at the source and ground water operable units achieved the remedial action objectives and goals; 2) 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 3) 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. There were no issues or recommendations that affected current or future protectiveness at the Site.

Background

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. There are no scheduled operation and maintenance requirements for this Site. The stabilized/solidified waste in the former oily sludge pit (Area 2 in the figure below) does not require any maintenance and was designed to remain in-situ based on the stringent treatment standards. The soil cover on the former landfill areas (Areas 1 and 3 in the figure below) and treated oily sludge pit area (Area 2) does not require mowing or other vegetation control since the vegetation helps to reduce potential erosion during flooding event. The property is available for reuse and redevelopment by the landowners consistent with the institutional controls implemented for the affected properties.

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. 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 as the water level drops in the 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.



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 entered in December 2000, required a property easement (Section V.9.a, Section IX.24.b) 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.

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

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.

Community Involvement

A public notice announcing the start and completion of the Third Five-Year Review Report was published in the Memphis, TN newspaper.

Information Repository: West Memphis Public Library

Site Contacts

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