# SOUTH 8<sup>TH</sup> STREET LANDFILL (CRITTENDEN COUNTY) WEST MEMPHIS, ARKANSAS

EPA REGION 6
CONGRESSIONAL
DISTRICT 01

Contact:

Vincent Malott 214-665-8313

**Updated: May 2009** 

EPA ID# ARD980496723 Site ID: 0600184

#### Current Status

The South 8<sup>th</sup> 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.

A draft second Five-Year Review report is currently under review by the EPA and Arkansas Department of Environmental Quality. The final five-year review report is due by June 17, 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. 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.

The first Five-Year Review of the site-wide remedial action was signed on June 17, 2004. The report documented that the completed remedy remains protective of human health and the environment. 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 events.

A directional pipeline boring that runs parallel to South 8<sup>th</sup> Street and under the Mississippi River to the Tennessee side was started in December 2006 from a drill pad located in Area 1 of the Site (see Site map below). An open trench connecting the drill pad and a pipeline along South 8<sup>th</sup> Street was located outside of the landfill cover in Area 1. EPA conducted a site inspection of the trenching and drilling activities on March 21, 2007. The pipeline has been completed and the surface area in Area 1 has been restored.

A site inspection was conducted on September 29, 2006, to ensure that the institutional controls implemented at the Site remain protective of human health. The site has not been redeveloped and there was no indication that any intrusive activities have occurred that would create a possible exposure to either the treated waste in Area 2 or the landfill contents in Areas 1 and 3 (see Site map below). Fill material has been deposited and graded around the treated waste mound in Area 2 in preparation of future redevelopment by the landowner. The entire area remains vegetated to prevent possible erosion. Security gates have been installed to prevent unauthorized access to the Site from South 8<sup>th</sup> Street.

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.

#### 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.

#### 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 Malott214-665-8313EPA Site Attorney:Anne Foster214-665-2169EPA Regional Public Liaison:Donn R. Walters214-665-6483ADEQ ContactRick Mattox501/682-0826

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.

