

MADISONVILLE CREOSOTE WORKS ST. TAMMANY PARISH LOUISIANA



EPA REGION 6
CONGRESSIONAL DISTRICT 01

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Background

The Madisonville Creosote Works (MCW) is located at 1421 West Highway 22, Madisonville, Louisiana. The Site is about 3 miles west of downtown Madisonville and consists of a defunct creosote wood treating facility and covers about 29 acres. Prior to the establishment of wood-treating operations, the site was primarily forested land, with a farmstead encompassing about 5.5 acres along the western property boundary. Wood-preserving operations at the site began in 1956 or 1957 under the name Madisonville Creosote Works, Inc. (MCWI). During wood-treating operations, poles, ties, and lumber were treated by impregnating the wood with creosote in retort cylinders under elevated temperature and pressure. The waste streams generated during these operations included process water, cooling water, boiler water, and waste creosote.



The contaminants of concern were creosote polycyclic aromatic hydrocarbons (PAH) that are considered highly toxic.

The area surrounding the property is predominantly rural and wooded but large tracts within 1 mile of the site are zoned for suburban use. Subdivisions are under construction on these tracts, and other subdivisions are being planned. During the site visit, three residences were noted adjacent to the site on the west side of the site and one was noted adjacent to the site on the east side. The Louisiana Department of Environmental Quality (LDEQ) Inactive and Abandoned Sites Division (IASD) is aware of the presence of two protected or endangered species of animals in the Madisonville area. There is also an old (over 100 years) live oak tree on the site.

A Time-Critical Removal Action (TCRA) was conducted in 1996 and involved demolition, consolidation, and/or disposal of the following: 11 site buildings and their contents (including drums of oil waste); the process area (including 15 storage tanks and their contents, three treatment cylinders, asbestos insulation, mercury-contaminated debris, and the concrete pad); piles of treated wood; and steel railroad tracks leading from treatment cylinders to wood storage areas. In addition, a 6-foot-high chain-link fence with barbed wire fencing was installed along the SH 22 side of the highway.

The EPA signed the Record of Decision (ROD) for the MCW site on August 25, 1998. The remedy selected in the ROD addressed contamination in the soil, sediment, surface water, and groundwater at the site by:

- Low Temperature Thermal Desorption (LTTD) to address the principal threat wastes within the soil and sediment (thus eliminating the source of contamination for surface water);

- Dense NonAqueous Phase Liquids (DNAPL) Recovery Trench System to contain and recover low level threat wastes within the groundwater;
- Institutional controls to ensure that future individuals will not be exposed to remaining low level site contaminants during its containment and recovery; and,
- Ground water monitoring to ensure the effectiveness of the cleanup remedy.

Current Status

- The Site is currently in operation & maintenance status. The LDEQ operates the DNAPL recovery trench system and performs routine monitoring. The EPA, LDEQ, and St. Tammany Parish have explored recreational reuse scenarios for future use of the property. The site is ready for limited reuse.
- The DNAPL recovery trench system continues to operate. An estimated 15,624 gallons of creosote have been recovered as of November 2011.
- The second Five-Year Review for the site was signed on February 26, 2009. The review determined that the selected remedy for the site is protective of human health and the environment. No major issues were identified during the site inspection or remedy review. The remedy will remain protective provided the DNAPL recovery trenches and the wastewater treatment plant (WWTP) are maintained, ground water monitoring data are evaluated to determine if the protection of ground water and the Upland Terrace Aquifer is occurring, security fencing around the DNAPL recovery trenches and WWTP is maintained, and access restrictions continue to be enforced.



Benefits

Remediation of the contaminated media greatly reduced the human health and ecological risks and protected drinking water supplies.

National Priorities Listing (NPL) History

Proposed Date: June 17, 1996
 Final Date: December 23, 1996

Location: The Site consists of a defunct creosote wood treating facility and covers about 29 acres in Section 42, Township 7S, Range 10E, St. Tammany Parish, in southeastern Louisiana. It is adjacent to the southern side of Louisiana State Highway 22, about 3 miles west of downtown Madisonville and 1.25 miles from the Madisonville city limits. The approximate geographical center of the Site is at 30° 25'38" north latitude and 90° 11'55" west longitude as measured from the United States Geological Survey (USGS) 7.5-minute series topographic quadrangle for Madisonville, Louisiana. The address of the property is 1421 West Highway 22, Madisonville, Louisiana 70447.

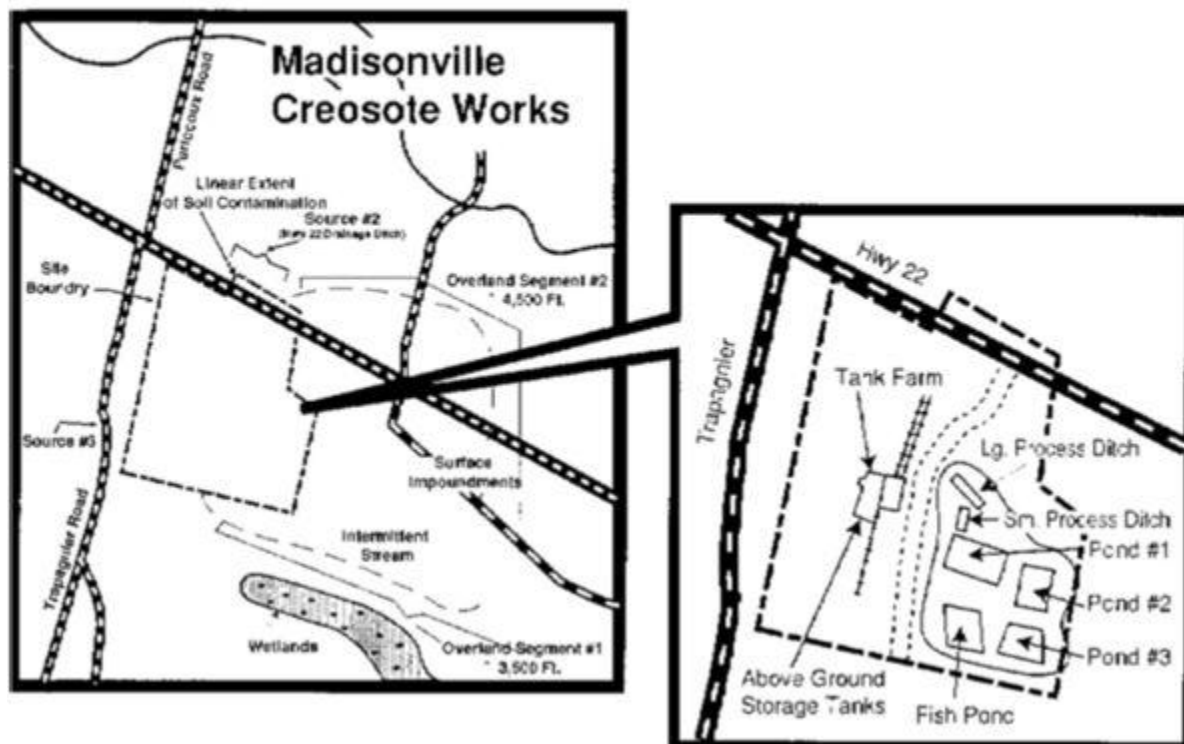
Population: 500 residents within 1 mile radius

Setting: The area surrounding the Site is predominantly rural and wooded with four residences immediately adjacent to the defunct wood treating facility. There are two unnamed

streams leading away from the facility, one to the north and the other to the south.

Principal Pollutants: Polynuclear aromatic hydrocarbons (creosote compounds).

Site Map



Health Considerations

The creosote compounds are carcinogens. To ensure a protective level of residential/recreational usage for the Site, EPA selected a numerical cleanup goal of 3 mg/kg benzo(a)pyrene (BAP) equivalents (a major creosote PAH constituent).

Record of Decision (ROD)

**Soil, Sediment and DNAPL Recovery, Operable Unit 1: ROD signed
August 25, 1998**

The remedy included the following:

Low Temperature Thermal Desorption (LTTD) to address the principal threat wastes within the soil and steam sediment and to eliminate the source of contamination for surface water.

- Dense Non-Aqueous Phase Liquids (DNAPL) recovery trench system to contain and recover low level threat wastes within the ground water;
- Institutional controls to ensure that future individuals will not be exposed to remaining low level Site contaminants during its containment and recovery; and,
- Ground Water monitoring to ensure the effectiveness of the cleanup remedy.

The cleanup was completed in May 2000. A total of 371 tons of creosote sludge and 9,512 gallons of creosote sludge and liquid were removed. A total of 131,000 tons of contaminated soil and sediment from the site and adjacent stream were excavated, thermally treated, and placed back on-site. The ROD required excavation and LTTD treatment to 3 mg/kg BAP equivalents for contaminated soil up to 2 feet below ground surface and 100 mg/kg BAP equivalents for contaminated soil between 2 to 4 feet below ground surface. The ROD also called for installation of a DNAPL recovery trench system to the creosote that leaked into the subsurface soils.

Site Contacts

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