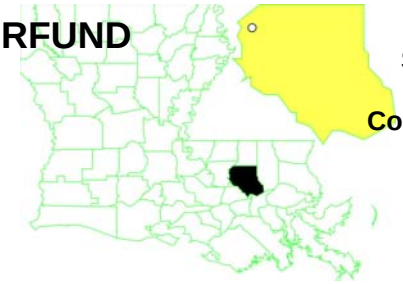
COMBUSTION INC. SUPERFUND SITE

Livingston Parish, Louisiana



EPA Region 6
State Congressional District: 6

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EPA ID# LAD072606627
Site ID: 0600472

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Current Status

The Louisiana Department of Environmental Quality (LDEQ) and the Environmental Protection Agency (EPA) accepted the potentially responsible parties (PRPs) Interim Remedial Action Report on June 26, 2007. This report documents the end of Remedial Action and the beginning of long-term operation and maintenance. Long-term operation and maintenance will continue until the ground water remediation goals established in the Record of Decision are met.

Benefits

An Expedited Removal Action was completed during late 1992 through 1993. This removal action eliminated unacceptable health risks associated with soil, sludge and waste for future industrial workers and future residents.

The Expedited Removal Action addressed the following:

- Approximately 17,133 cubic yards (25,700 tons) of soil and 2,000 tons of debris and foundation materials were excavated and disposed offsite.
- Approximately 5,333 cubic yards (8,000 tons) of solidified sludge and paraffin and approximately 3,400 linear feet of pipeline were excavated and disposed offsite.
- Approximately 484,437 (58,086 gallons) of oil was sent offsite for energy recovery.
- 18 above ground and 12 underground storage tanks were emptied of contents, dismantled, and recycled.
- Approximately 11.3 million gallons of wastewater were treated and discharged.

[Note: a 1.5 conversion factor was used to convert tons to cubic yards and a conversion factor of 8.34 was used to convert gallons to pounds.]

Reuse: Approximately 6.5 acres are available for industrial use. Once remedial goals have been reached for the process area, approximately 2.5 acres will be available for unlimited exposure/unrestricted use, including residential use.

Environmental Indicators: Human health exposure has been controlled with the removal of contamination during the expedited removal action and the completion of the remedial action. Currently, the ground water migration and exposure pathways are controlled due to the long-term operation of the phytoremediation remedy.

National Priorities List

Proposal Date:	June 20, 1986
Re-proposal Date:	June 24, 1988
Final Listing Date:	August 31, 1990

Location: Dubose Oil Company and subsequently Combustion, Inc. operated primarily as used oil reclamation facility from the late 1960s until the early 1980s. The site is approximately 3 miles northeast of Denham Springs, Louisiana, at Milton Road and Burgess Road.

Population: There are approximately 1,000 residents that live within a 1-mile radius of the site. The immediate residential properties are located along the northern, eastern and western boundaries and consist of 36 homes.

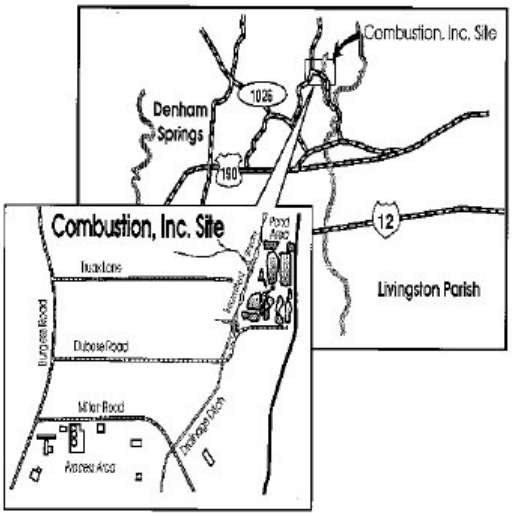
Setting: The site is the location of a former waste oil recycling facility consisting of a small processing plant (Process Area), a Pond Area, and a connecting pipeline. Two basic operational processes existed at the site: oil reclamation and wastewater treatment. The oil reclamation activities were performed in the former Process Area. The 2.5-acre Process Area contained 16 aboveground storage tanks (ASTs), a small tanker-truck, 11 underground storage tanks (USTs), a boiler, boiler shed, pump shed, and associated foundations, piping, sumps and containment walls. The wastewater treatment system in the former Pond Area treated storm water runoff and excess water from hydrocarbon recycling activities contaminated by oil or oily wastes. The 6.5-acre Pond Area contained two ASTs, one UST, and 14 interconnected ponds (Ponds A through N) with a total surface area of approximately 2.4 acres and an estimated capacity of approximately 4 million gallons.

Hydrology: Two water bearing zones, the upper and lower water-bearing zones, are identified in the vicinity of the former Process Area. Based on interpreted boring logs, these zones are hydraulically connected, although varying degrees of separation occur. The top of the upper water-bearing zone is generally encountered at depths ranging from 4 to 18 feet below ground surface (bgs) and the base is variable but no greater than 30 feet bgs. The top of the lower water-bearing zone is encountered at depths of 26 to 42 feet bgs but is usually near 30 feet bgs, and the base is encountered at depths of 59 to 102 feet bgs.

Principal Pollutants: The Expedited Removal Action addressed all principal threat wastes and contaminated soil and surface water.

Groundwater beneath the former facilities in the Process Area has been impacted by site activities. Based on sample results, the groundwater contains concentrations of volatile organics and semi volatile organics. No non-aqueous phase liquid was detected at the top or bottom of the water column. The more widely distributed constituent groups in this area are the semi volatile aromatic amines and volatile chlorinated organics including 1,2-dichloroethane. The constituents are present in the groundwater to approximately 30 feet bgs, and groundwater movement to the south has contributed to contaminant migration approximately 500 feet beyond the former Process Area leaving approximately a 500-foot wide zone between the plume edges and the southern site boundary.

Site Map



Human Health And Ecological Risk Assessment

The numerical cleanup goals for the ground water are the Primary Drinking Water Maximum Contaminant Levels (MCL). If an MCL was not available, then a risk-based standard was developed for that contaminant.

Community Involvement

The LDEQ and EPA plan to be out in the community while conducting the Five Year review scheduled for 2010.

Record Of Decision

Groundwater: The Record of Decision was signed by LDEQ on April 30, 2004, and by EPA on May 28, 2004.

The major elements of the remedy include:

1. Phytoremediation, as an enhancement to natural attenuation, will provide additional controls to prevent further lateral migration of contaminants in the ground water. The phytoremediation will include planting and maintenance of trees in a manner designed to inhibit movement of ground water contaminants toward the downgradient perimeter and to degrade contaminants within the plume. Establishment of the trees is expected to require two years. Once the trees have been properly established, phytoremediation will be primarily a passive remediation. The Remedial Design will specify tree species, planting density, and planting procedures.

2. Ground water in the upper and lower water-bearing zones in the vicinity of the former Process Area will be monitored for volatile organic compounds and 2,4/2,6-toluenediamine (TDA)-related compounds. Ground water analyses have led to the selection of two compounds as tracking constituents. 1,2-dichloroethane (EDC) has been selected as the tracking constituent for the volatile organic compounds (VOCs), while 2,4/2,6-TDA has been selected as the tracking constituent for the aromatic amine compounds. The behavior of these compounds should be indicative of the behavior of other similar compounds at the site.

3. Natural attenuation of the ground water will also be evaluated using biogeochemical monitoring prior to each Five Year Review. Fate and transport modeling of the TDA and EDC plumes will also be performed prior to the Five Year Review.

4. Ground water in Zone 1 and Zone 2 in the vicinity of the former Pond area will be monitored for volatile organic compounds. This ground water monitoring program was presented in Appendix D of the Feasibility Study (URS, 2001).

5. Appendix E of the Feasibility Study (URS, 2001) is a Site Long-Term Care Plan that provides a framework for site upkeep during the remedial action.

6. Hot-spot treatment is selected as the contingency remedy to provide additional treatment in the more highly contaminated areas of the ground water plume should the selected remedy fail to meet the specified criteria when evaluated during the first Five Year review. The aromatic amines will be treated utilizing hydrogen peroxide and an iron catalyst and the chlorinated alkanes will be treated utilizing a hydrogen-releasing compound.

7. Institutional controls (ICs) in the form of conveyance notices to inform the public of Site conditions and restrictions will be required for the pond area soils and the pond and process area ground

water. This IC will be enforced and monitored by LDEQ in accordance-with La. Rev. Stat. Aim. § 30:2039 (2000) and La. Admin. Code tit. 33 § 3525 (1999), which will require the owner(s) of the facility property to record a notice in the mortgage and conveyance records of Livingston Parish.

Site Contacts

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