

Stauffer Chemical Company – Tampa
2009 Orient Road
Tampa, Florida
County: Hillsborough
District: Southwest
Site Lead: EPA
Placed on the National Priorities List: February 7, 1992
ERIC ID # 3866

Site History and Description

The Stauffer Chemical – Tampa site is a 40-acre facility located in an industrial area in north Tampa in Township 29S, Range 19E, Section 14 at 27° 57' 47.1600" N, 82° 22' 14.1600" W. The site is surrounded by CSX Railroad on the north, Orient Road on the west, Tampa By-Pass Canal on the east, and the County Correctional Facility to the south. Most of the site is wooded, except for areas where support facilities are/were located and an area in the northern portion where sulfur was stored. Two secluded ponds occupy the site, ranging in depth up to eleven feet below land surface.

Stauffer Tampa operated between 1951 and 1986 as a manufacturer/distributor, which formulated insecticide and herbicide products into dusts, granules, pellets, and liquids that were packaged for commercial distribution. Compounds such as kerosene, xylenes, clay, and diatomaceous earth were also handled on site. Between 1953 and 1973, Stauffer Management Company (SMC) disposed of waste in ten disposal areas on site. Over 300 drums of agricultural chemicals were disposed of in unlined pits during this 20-year period. An onsite incinerator operated for burning packaging materials that formerly contained raw chemicals.

Threat

Numerous sampling analyses delineated the presence of chlorinated pesticides in groundwater, soils, and surface pond sediment. Metals and volatile organic compounds (VOCs) were also present above cleanup standards in several regions of the site. Contaminated groundwater threatened the Floridan aquifer and the Tampa Bypass Canal.

Response Strategy and Status (December 2020)

In July 1982, a site investigation and geophysical study conducted by Ecology and Environment, Inc. delineated numerous buried drums at the site. Additional geophysical and environmental studies were conducted by NUS Corporation in 1987 and ERM in 1990. In April 1988, NUS conducted an investigation to provide ranking status for possible inclusion on the National Priorities List (NPL). The investigation revealed the presence of pesticides in on-site soil, sediments, surface water, and groundwater. Stauffer Chemical Tampa was added to the NPL on February 7, 1992.

In March 1992, the EPA issued an Administrative Order on Consent (AOC) with SMC that included 2 phases. Phase I required the removal of buried drums and metal, as well as soil containing a total pesticide concentration of 1,000 ppm or greater. Phase II included the treatment, transportation, and and/or disposal of all hazardous substances excavated pursuant to this AOC.

This action included the excavation of 3,415 cubic yards of soil, and removal of metallic debris and approximately 600 buried drums.

The EPA issued a second AOC in September 1992, with ICI Americas Inc., now Zeneca Inc., an affiliate of SMC. The Consent Order required a Remedial Investigation and Feasibility Study (RI/FS) to determine the extent of contamination in soils and surface water and was amended in October 1992 to include groundwater. Camp, Dresser and McKee Inc. was contracted by SMC to complete site investigations from 1991 to 1993. These studies evaluated the extent of contamination and provided alternatives to address cleanup in site soils and groundwater.

A draft Remedial Investigation/Feasibility Study (RI/FS) was submitted to the EPA in November 1994. The EPA and DEP accepted the Final FS in October 1995. Contaminants of concern include the dichlorodiphenyl family (DDD, DDE and DDT), benzene hexachloride family (alpha-, beta- and delta-BHC), aldrin, chlordane, dieldrin, and toxaphene.

A Record of Decision (ROD), proposed in April 1996, addressed ex-situ anaerobic treatment of sediments and soils, and extraction and treatment of contaminated groundwater. The EPA signed this ROD, and DEP concurred with the ROD in July 1996.

Treatment of excavated soils by anaerobic biodegradation as a pilot study proved successful in 1996, and was implemented in the full-scale design. The EPA completed an Explanation of Significant Differences in November 1997, which corrected the name used previously in EPA site documents from Stauffer Chemical Company to Stauffer Management Company (SMC), and allowed for placing a cover over Pond 2 and backfilling it.

The EPA approved the remedial design in May 1999. Mobilization and site preparation activities started in July 1999. SMC managed the construction activities through multiple subcontracts and consultants. The work was divided into four major categories including: 1) installation of a soil treatment system; 2) soil removal and treatment; 3) sediment capping and; 4) installation of a groundwater treatment system.

Remedial construction activities were completed in July 2000. The EPA decided not to address pond sediments until all surface soils had been treated due to concern that clean soil placed in the ponds could become contaminated. Pond sediments would be addressed as a final step in the remediation of surface soils and establishment of storm water management controls.

Although the groundwater collection, treatment and disposal system became operational in August 2000, it was shut down after a few months due to a severe iron-fouling problem. A full engineering design proposal for the groundwater iron-fouling problem was approved by the City of Tampa. Construction was completed in September 2001 and the system resumed operation.

Between 2000 and 2003, remediation of soils through full scale biodegradation was conducted but saw only limited success. Additionally, the Big Top structure, which housed the soils during the remediation process, was determined via inspection by the manufacturer to have suffered considerable damage from corrosive gasses generated during the treatment process. The structure

was torn down and removed for safety considerations. The Final Demolition Inspection was conducted in November 2003.

Stauffer suspended the soil remediation process and discussed other alternative site remedial options with DEP and the EPA. A remedy modification was approved in April 2004, which included excavation of contaminated soils to two feet, construction of a soil containment cell, and capping of contaminated soils. The 50% design for this remedy was submitted by Stauffer's consultant in July 2005.

The EPA completed a ROD Amendment for contaminated soils in August 2006, and DEP verbally concurred. Subsequently, Stauffer submitted the 100% design for the soil remedy, which both the EPA and DEP approved. DEP formally concurred with the ROD Amendment in December 2006. Construction of the new remedy for contaminated soils was completed in November 2007, and Stauffer submitted the Construction Completion Report for review. Stauffer also submitted a draft Restrictive Covenant in December as a condition of the approved soil remedy. This restrictive covenant will limit future use of the property to ensure protectiveness of human health and the environment. DEP approved the Final Soil Remedy Construction Completion Report in early 2008. The Restrictive Covenant was executed in the fall of 2009.

During the summer of 2010, DEP conducted a site visit and contributed technical comments to the draft Five Year Review. At the end of September 2010, the EPA completed the Five-Year Review, confirming the site remains protective of human health and the environment. DEP concurred with these findings and received a copy of the Final Five-Year Review in spring 2011.

Another Five-Year review was completed in August 2015. The site remains protective.

In February 2019, Stauffer submitted a Work Plan proposing a temporary shutdown of the groundwater treatment system with the goal of moving toward a groundwater monitoring remedy. DEP and EPA agreed to a phased approach of system shutdown starting with the downgradient (less contaminated) portion of the site first.

EPA completed the fourth Five-Year review in June 2020. The site remains protective.

Schedule

Long-term operation, maintenance and monitoring of both soil and groundwater remedies are ongoing.