

Escambia Wood – Pensacola
3910 North Palafox Avenue
Pensacola, Florida
County: Escambia
District: Northwest
Site Lead: EPA
Placed on National Priorities List: December 16, 1994
HWC # 111

Site Description and History

The Escambia Wood Treating Company (ETC) is located at 3910 Palafox Highway, northeast of the intersection of Fairfield Drive in Pensacola, Florida in Township 02S, Range 30W, Section 05 at 30° 27' 18.6897" N, 87° 13' 52.3516" W. The 26-acre site is situated in an area of mixed land use, bordered by a small residential community to the north, the CSX railway to the east, Palafox Drive to the west and by numerous businesses in an area of mixed residential and industrial zoning to the south.

ETC operated from 1942 until 1982 as a manufacturer of treated wooden utility poles and foundation pilings. From 1942 until 1963, ETC used creosote in the wood treating process. In 1963, pentachlorophenol (PCP) was introduced to the process and was used exclusively from 1970 until the facility was closed in 1982. During operation, ETC discharged spent creosote and PCP-laden waste into unlined holding ponds on site.

Groundwater contamination at the site was discovered when elevated levels of naphthalene, phenols, polynuclear aromatic hydrocarbons (PAHs), PCP, and other compounds associated with wood preserving facilities were detected in the groundwater at the nearby Agrico Superfund site in 1986. In 1988, the U.S. Environmental Protection Agency (EPA) completed a Resource Conservation and Recovery Act (RCRA) Facility Assessment that identified thirty-one solid waste management units (SWMUs) and two other areas of concern. Contained within these areas were several unlined surface impoundments, an unlined landfill, several wastewater treatment units, an abandoned laboratory, and a chemical and preservative storage area.

To reduce the imminent threat to groundwater and the risk of public exposure to contaminated soils, the EPA began the excavation of contaminated soils and sludge in October 1991 as an immediate temporary means of source control. Excavation was completed in September 1992, after approximately 250,000 cubic yards of soil were placed in a lined vault and storm water controls were constructed.

Threat

Site investigation disclosed elevated levels of creosote, phenols, PAHs, and PCP in soils and groundwater. The presence of polychlorinated biphenyls (PCBs) in isolated soils was detected from several overturned electrical transformers found on site. Analysis of soils also revealed dioxins, a common impurity in commercial PCP. Inhalation of fugitive dust emissions posed a significant threat to nearby workers and residents.

Groundwater contamination and surface water runoff from the ETC site poses a threat to Pensacola Bay located two miles southeast, and to Bayou Texar, an environmentally sensitive wetland area located 1.5 miles to the east.

The excavation and vaulted containment of onsite contaminated sludge and soils reduced the threat of additional groundwater contamination through source removal and reduced the potential for additional surface water contamination via surface water runoff. However, the onsite containment of the contaminated soils still posed a significant risk until a permanent means of disposal was implemented.

Response Strategy and Status (August 2016)

During the spring and summer of 1991, the EPA conducted a site investigation. Based on the site investigation, the EPA implemented emergency response measures and began the excavation of contaminated soils in October 1991. Excavation proceeded to the water table at a depth of 48 feet below land surface. Groundwater analysis revealed extensive contamination with PAHs and PCP. Excavation was completed in September 1992, after approximately 250,000 cubic yards of creosote-, PCP- and dioxin-contaminated sludge and soils were excavated and placed in an onsite, lined vault. An estimated 50,000 cubic yards of contaminated soils lay beneath the vault and in adjacent areas.

The EPA selected Camp, Dresser & McKee Federal (CDM) as the remedial cleanup contractor and, in February 1995, CDM submitted a Remedial Investigation Work Plan. The EPA initiated a Phase I Remedial Investigation (RI) in November 1995, and completed the RI in October 1996. The Phase I RI Summary Report indicated that surface and subsurface soils contained elevated levels of PAHs at several onsite locations and that the majority of groundwater contamination was either no longer present onsite or not present in the zones currently monitored. The report also recommended that existing data gaps be investigated during a Phase II RI.

In June 1995, EPA nominated the ETC site as a National Relocation Evaluation Pilot site. In August 1995, the EPA Environmental Sampling Division (ESD) performed offsite sampling of the residential areas surrounding the site, and the data revealed several contaminants of concern above site cleanup goals. In April 1996, the EPA released the Proposed Plan for Interim Action at the ETC site, which proposed initially relocating 66 households, and evaluating the relocation of the remainder of the neighborhood between the ETC and Agrico Superfund sites. In August 1996, following continued evaluation and considering comments from DEP and affected residents, the EPA issued an “Addendum to the April 1996 Superfund Proposed Plan Fact Sheet”, which increased the number of residents requiring relocation to 101. In August 1996, a public meeting was held to discuss the EPA proposed relocation plan. In October 1996, after examining the impacts to nearby communities and considering the adverse impacts to nearby residents due to potential remedial options, the EPA issued a statement declaring that all 358 households around the ETC site would be relocated. The number of relocated households was later revised to 370 because of additional information.

The EPA issued an Interim Action Record of Decision (IAROD) for the ETC site in February 1997, specifying the relocation of 370 households from the surrounding residential communities. The DEP issued its Letter of Concurrence with the IAROD in March 1997. The State Superfund Contract (SSC) between the State of Florida and the EPA for the Interim Action was signed on May 6, 1997.

The Phase I RI/FS for source soils was completed, and the EPA approved the Final RI/FS in September 1998. The DEP withheld approval because several unaddressed concerns were to be mentioned in the Operable Unit 2 (OU 2) RI/FS.

The Draft Work Plan for the OU 2 RI/FS was submitted in March 1999, and the DEP provided comments in June 1999. The revised OU 2 RI/FS Work Plan was submitted in August 1999, and the DEP submitted comments in October and November 1999. The EPA submitted response comments in March 2000, and DEP concurred with the comments. The EPA approved the OU 2 RI/FS in April 2000.

In August 2000, the EPA Contractor, Camp, Dresser & McKee (CDM) completed fieldwork for the Phase I RI/FS, which focused on defining the extent of the groundwater plume to the east and southeast of the site. In December 2000, CDM submitted a Phase I Data Evaluation Report, which summarized the Phase I fieldwork data and proposed a Phase II field effort to further define the extent of offsite groundwater contamination and a sampling strategy for Bayou Texar. The DEP submitted comments on the report in February 2001 and discussed the comments with the EPA and CDM in May 2001. All of the DEP comments were adequately addressed, and the document was approved in June 2001.

In April 2001, the EPA submitted the Draft Sampling and Analysis Plan for Phase II. In May 2001, the DEP provided comments, which included revised locations for wells needed to delineate the plume, and a request for two well pairs to be installed on the east and west banks of Bayou Texar for monitoring plume migration into and across the Bayou. The final Sampling and Analysis Plan for Phase II was approved in June 2001.

From June to November 2001, the EPA generated nine drafts of a Proposed Plan for the OU 1 soil remedy. The DEP provided review comments on the drafts and requested that the EPA apply DEP dioxin cleanup levels of 7 ng/kg for residential and 30 ng/kg for commercial/ industrial. The Department also requested that arsenic, vanadium, dieldrin and 2,4-dimethylphenol be added as contaminants of concern. The EPA did not agree with either DEP comment, citing the EPA national dioxin cleanup levels and their belief that the additional contaminants of concern were not a result of ETC site operations. Agreement was never reached between the EPA and DEP on these issues, and the EPA tabled the Proposed Plan.

In January 2002, CDM submitted a Draft Screening Level Steps 1-3a Ecological Risk Assessment. The DEP reviewed the document and submitted comments in March 2002. The DEP believed the document was premature and that the sampling was inadequate to conclude the ETC site posed no risk to Bayou Texar. CDM revised the document based on results from the August 2001 sampling event. DEP reviewed the revisions and noted that the previous DEP comments were not addressed.

In October 2002, the DEP, EPA, Citizens Against Toxic Exposure (CATE), the City of Pensacola and Escambia County held a conference call to discuss the ecological assessment. The EPA agreed to table revisions to the document until CDM completed the Remedial Investigation for OU 2 and a review of the additional ecological assessment data could be evaluated.

In May 2002, CDM submitted a Draft Baseline Risk Assessment for Human Health. DEP submitted review comments in August 2002, and discussed the comments with the EPA in October 2002. The DEP was concerned that the well survey had not been conducted. The EPA agreed to table revisions to the document until CDM completed the OU 2 Remedial Investigation and could reevaluate the additional data needs for completion of the human health risk assessment.

In May 2002, CDM submitted a Draft Remedial Investigation for OU 2. DEP reviewed the document and submitted comments in September 2002. The EPA, DEP, CATE, the City of Pensacola and Escambia County held a meeting in September 2002 to discuss the stakeholders' concerns that the document contained numerous data gaps. The EPA submitted a response to DEP comments in October 2002, and agreed that additional work would be required in order to define the horizontal and vertical extent of groundwater contamination.

In July 2002, CDM submitted a Draft Feasibility Study Technical Memorandum. DEP reviewed the document and submitted comments in September 2002.

In May 2003, CDM submitted a Draft Final Sampling and Analysis Plan for Phase III of the Remedial Investigation detailing the new well locations and additional monitor well sampling for completing delineation of the groundwater plume. The plan also outlined further investigatory procedures for Bayou Texar impacts and for the well inventory survey. The DEP submitted review comments to the EPA in August 2003. CDM submitted a revised Final Sampling and Analysis Plan for Phase III in October 2003, and the DEP approved the plan in December 2003.

In February 2004, CDM submitted a Final Sampling and Analysis Plan Operable Unit 1 Site-Related Soil Sampling Investigation and completed the OU1 sampling activities in March 2004.

Phase I Demolition activities of the vacated residences were completed by USACE in early March 2004. The EPA and USACE initiated Phase II Demolition activities in August 2004, but these activities were placed on hold due to the effects of Hurricane Ivan; USACE equipment had to be used for hurricane restoration activities elsewhere in Escambia County.

In October 2004, the EPA completed a draft report for the offsite, dioxin soil sampling of the Clarinda Triangle and Herman Jackson areas. The report indicated dioxin soil contamination exceeding the DEP commercial/industrial cleanup level of 30 ng/kg in six sampling locations and the residential cleanup level of 7ng/kg in 28 sampling locations.

The EPA held a Public Availability Session in Pensacola in February 2005, to discuss the revised schedule for Phase II Demolition activities, the results of the offsite dioxin soil sampling, and the findings of the Inspector General-Ombudsman Report.

The Feasibility Study and Draft Proposed Plan were released in July 2005, and demolition activities were completed in July 2005. The last family in the Hermann Pearl area accepted the EPA's offer to relocate. The relocation was completed in November 2005.

The EPA submitted the Record of Decision for the OU 1 soil remedy to the DEP in February 2006. The selected remedy called for: excavation of onsite and offsite source soils; onsite containment; solidification/stabilization of the most toxic soil material; and capping. The EPA relocated residents in the Clarinda Triangle area under an extension of the National Relocation Evaluation Pilot Program. USACE established an office near the ETC site and conducted negotiations with the Clarinda residents. A Public Availability Session was held in June 2006, to explain the relocation process to interested citizens. Relocation of all affected residents was completed in 2009.

Escambia County scheduled a 30% Design Review meeting in July 2006, for the community to actively participate in the OU 1 soil remedy design. A 60% Design Review meeting was held in November 2006. Attendees included representatives from the City of Pensacola, Escambia County, the Chamber of Commerce, CATE, and Congressman Miller's Office. In March 2007, the DEP concurred with the soil remedy in the OU 1 Record of Decision.

Cutline sampling was conducted in the "hot spot" areas at the site in October 2006 and the results were submitted in December 2006.

After reviewing data in preparation for the OU 2 Groundwater Feasibility Study, the EPA and DEP agreed that additional sampling should be performed to close some perceived data gaps. The additional fieldwork was performed in February 2007. The OU 2 Feasibility Study was submitted to DEP for review in October 2007. The OU 1 Remedial Action was implemented in October 2007.

A Public Availability Session was held in December 2007 to provide information and answer questions regarding the OU 2 Groundwater Feasibility Study. Construction and demolition activities began in November 2007, and included removal of concrete slabs and vegetation. Excavation activities for soil began in January 2008.

Confirmation sampling taken during the excavation activities revealed additional quantities of contaminated soil, and the EPA determined that additional delineation of these areas would be required. While the additional soil and groundwater sampling was being performed, EPA identified a dense non-aqueous phase liquid (DNAPL), or "free product" in the SWMU-10 vicinity from the surface down to approximately 105 feet below land surface. This area appeared to be a significant source of contamination to groundwater. The remedial decision to address this area has not yet been determined.

The EPA submitted the OU 2 Groundwater Record of Decision to DEP in September 2008. DEP provided comments, but withheld concurrence pending further investigation of the SWMU-10 source area.

The OU 2 Pilot Study involving the installation of a horizontal well and groundwater injection was completed in August 2009. Groundwater sampling is still ongoing. DEP is awaiting the report documenting the activities and results of that study.

The construction activities associated with the OU 1 soil remedy are complete. In early 2013, DEP took over operation and maintenance of the OU 1 water treatment system per agreement with the EPA.

The EPA developed a draft Focused Feasibility Study. The proposed remedial alternative involved constructing a barrier wall and cap for the most highly contaminated areas and monitored natural attenuation for the downgradient plume. Cost estimate is approximately \$13.5 million dollars. DEP has not yet concurred with this proposal.

The Focused Feasibility Study and Proposed Plan for the SWMU-10 Area were finalized in August 2014. EPA held a public meeting to discuss the proposed plan on August 19, 2014 at the new Hope Missionary Baptist Church. EPA's preferred alternative for SWMU-10 consists of treating the source area with steam enhanced extraction (SEE) and in situ enhanced bioremediation (ISEB). The EPA developed a Record of Decision Amendment for groundwater and submitted it for DEP review. DEP provided comments and is currently awaiting the final document from EPA.

Schedule

The Remedial Design for groundwater has been initiated. Operation and Maintenance of the OU1 (soil remedy) is ongoing. DEP and EPA are currently working on a land transfer arrangement that will facilitate beneficial reuse of the property.