

Agrico Chemical Company

118 East Fairfield Drive

Pensacola, Florida

County: Escambia

District: Northwest

Site Lead: EPA

Placed on National Priorities List: October 4, 1989

HWC # 074

ERIC ID # 3846

Site Description and History

The Agrico Chemical site is an approximately 35-acre parcel located at the northwest corner of Fairfield Drive and Interstate 110 in Pensacola, Florida in Township 02S, Range 30W, Section 05 at 30° 27' 09.8914" N, 87° 13' 28.9648" W. Surrounding land use consists of residential, municipal, commercial, and industrial. A CSX railroad switching yard is located to the west of the site. A mini-storage facility borders the south-central portion of the site. Bayou Texar is located approximately 1.5 miles east of the site.

The facility began producing sulfuric acid from pyrite (iron sulfide) in 1889. From 1920 to 1979, several companies, including Agrico Chemical Company produced fertilizer onsite. When the Agrico facility ceased operation in 1979, the buildings and process equipment were removed, leaving the concrete foundations. Process wastewater was discharged into four unlined ponds. The ponds are visible in aerial photographs taken from 1940 through 1990.

Threat

The soil contaminants are arsenic, lead, and fluoride. The groundwater contaminants are fluoride, chloride, sulfate, nitrate/nitrites, arsenic, and radionuclides. This site poses an imminent hazard to groundwater but there is no known exposure pathway to humans. Currently, no drinking water wells are located within the contaminant plume. Because groundwater in the Agrico site area discharges to Bayou Texar, there is the potential for adverse effects on the bayou ecosystems. No adverse effects have been identified.

Response Strategy and Status (December 2016)

In 1983, the United States Environmental Protection Agency (EPA) conducted a hazardous waste site investigation at the request of the Florida Department of Environmental Regulation (FDER, now DEP). Based on the findings of the investigation, the EPA listed Agrico on the National Priorities List (NPL) in 1989. In 1989, the former operators, Conoco Inc. (now ConocoPhillips, Inc.) and Freeport McMoRan R P LTD, entered into an Administrative Order on Consent to conduct a Remedial Investigation/Feasibility Study (RI/FS) under EPA oversight. The RI/FS was completed in 1992. In August 1992, the EPA presented the preferred remedy for contaminated soil as Operable Unit 1 (OU-1). The proposed remedy included excavation and solidification/stabilization of contaminated soil/sludge, and capping the soil/sludge with a multimedia Resource Conservation and Recovery Act (RCRA) cap. The remedy also included a slurry wall for containment of solidified materials, security fencing, and institutional controls including access and deed restrictions. In June 1993, the Potentially Responsible Parties (PRPs)

entered into a Consent Decree with EPA to conduct the soil cleanup. A Record of Decision (ROD) was signed in September 1993.

In June 1993, a feasibility study was performed to address groundwater contamination (OU-2). A July 1993 groundwater and wetlands study indicated that the groundwater plume associated with this site is discharging to Bayou Texar. Offsite field activities were conducted to further delineate groundwater characteristics of the lower portion of the main-producing zone of the Sand-and-Gravel Aquifer, which is the primary drinking water source for northwest Florida.

The Citizens Against Toxic Exposure (CATE) were awarded a Technical Assistance Grant (TAG) to hire consultants to help the community understand and comment on EPA reports and proposed cleanup activities.

In February 1994, the EPA proposed monitored natural attenuation (MNA) as the remedy for Operable Unit 2 (OU-2). A public meeting was held to discuss concerns. CATE's attorney raised arguments that the selected remedy was not protective. The Consent Decree for OU-2 was lodged with the Department of Justice and signed in May 1994. The ROD for OU-2 was signed in August 1994.

Construction began on OU-1 in March 1995. In July 1995, the Florida Department of Health and Rehabilitative Services (HRS) collected soil samples from the neighborhood adjacent to the site and the Brown Barge School as part of a health assessment consultation. The health assessment concluded that incidental ingestion of arsenic and lead in the neighborhood or at the school were possible, but unlikely. No metals or polynuclear aromatic hydrocarbons (PAHs) were found in surface soil samples at the school at a level of health concern.

In September 1995, an Explanation of Significant Differences (ESD) was signed for two modifications to the OU-1 ROD. The first modification provided for use of a geosynthetic clay liner (GCL) as part of the RCRA cap, as opposed to the original compacted clay layer. The second modification was to the length and location of the slurry wall. The slurry wall was installed in June 1996.

The DEP signed the Letter of Concurrence for both operable units in September 1996. Construction of the RCRA cap began in October 1996.

Construction activities for OU-1 were completed in April 1997. All contaminated soil and sludge were excavated, solidified, consolidated and covered by the RCRA cap. During excavation of contaminated soil in the southwestern portion of the site, the PRPs' contractor identified an area of additional contamination along the access road near the CSX Railroad. It was determined that the contamination is related to the CSX property and not with the Agrico Site.

The EPA approved the Remedial Action Work Plan for Monitored Natural Attenuation (OU-2) in May 1999. The groundwater monitoring well network for OU-2 was completed in the fall of 1999. Groundwater Sampling Results for May and November 1999 submitted by the EPA indicated that

groundwater concentrations in the background wells were below laboratory detection limits for the OU-1 target constituents.

In February 2000, the Remedial Action Implementation and First Annual Report for OU-2 were submitted. The surficial and main-producing zones have been thoroughly investigated for the fluoride, chloride, arsenic, sulfate, nitrate/nitrites and radium-226/228 constituents. Based on current concentrations, only fluoride concentrations exceed the performance standard in the surficial zone and fluoride, nitrate/nitrites and radium exceed the standards in the main-producing zone.

A five year review was conducted to determine if the soil remedy at the Agrico site remains protective of human health and the environment. The EPA submitted the Five-Year Review Report in February 2000 and DEP provided comments on the report to the EPA in April 2000. The EPA responded to the comments and approved the report in May 2000.

As part of the sampling plan designated in the Record of Decision for OU-2, ConocoPhillips, in association with URS, sent out irrigation well surveys to local residents. A total of 59 irrigation wells were identified in the Agrico OU-2 area. To date, of the 59 irrigation wells identified, only 21 owners have allowed their wells to be sampled for Agrico related contaminants and additional constituents, such as tetrachloroethene (PCE), lead and mercury.

In December 2003, the EPA tasked the US Army Corps of Engineers (USACE) to conduct a five year review of the Agrico OU-1 soil/sludge remedy and the OU-2 groundwater remedy in order to determine if the entire remedy remains protective of human health and the environment. The five-year review was conducted from December 2003 to August 2004, and consisted of a document review, data review, site inspection, and interviews. Additionally, groundwater sampling was conducted for the entire Agrico monitoring well network, and sediment and pore water samples were collected from Bayou Texar and Carpenter Creek. In August 2004, the USACE completed and submitted the Draft Second Five-Year Review Report For Agrico Chemical Company. The report determined that the entire remedy is expected to attain groundwater cleanup goals through natural attenuation and continues to be protective of human health and the environment. Both the EPA and the DEP concurred with the findings of the Second Five-Year Review Report For Agrico Chemical Company.

The DEP reviewed the November 2006 Evaluation of Long-Term Groundwater Monitoring Network report prepared by URS, and requested that ConocoPhillips monitor a more complete set of contaminants.

The DEP reviewed the Evaluation of Monitored Natural Attenuation in Groundwater, dated August 19, 2009, and agreed with the conclusions that arsenic and lead should be dropped from the list of future analyses, radium is not a result of Agrico's releases to groundwater, and MNA appears to be working as evidenced by declining groundwater contamination concentrations.

The DEP review of the Conceptual Site Model dated September 4, 2009, resulted in a meeting to discuss the claim that the Agrico fluoride plume did not affect benthos or fish in Bayou Texar. The PRP, EPA, and DEP agreed to continue annual near-bottom surface water monitoring.

The Third Five-Year Review was prepared by E2 and completed in June 2010.

The DEP completed its review of the 2010 Annual Report in May 2011. Based on data included in the report, the DEP requested changes to the sampling plan. The request included adding a deep well on the east side of Bayou Texar between the plume discharge divide and the Hagler water supply well to determine if pumping at the Hagler well is causing plume advancement.

The Fourth Five Year Review was completed in March 2015.

Ecological restoration began in 2015. Pollinator-friendly vegetation was added by the PRP, which has also enhanced the remedy, preventing erosion around the engineered cap.

As of November 9, 2015, the sampling schedule for Agrico has been modified. Annual groundwater samples will be collected from monitoring wells ACB-31S, AC-2S, AC-2D, AC-3D, AC-12D, AC-13D, AC-24D, AC-25D, AC-29D, and AC-35D. All other wells will be sampled on a 5 year basis in conjunction with the 5 Year Review. Surface water sampling will continue at Bayou Texar for Fluoride only at 3 locations BT-002, BT-107 and BT-127.

Schedule

ConocoPhillips will continue to maintain the Agrico site, conduct annual groundwater monitoring, and submit annual reports for OU-1 and OU-2. Annual monitoring should continue in Spring 2017.