



# EPA

## FORMER AGRICO CHEMICAL COMPANY SUPERFUND SITE

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# PENSACOLA AGRICO CHEMICAL SUPERFUND SITE UPDATE

The United States Environmental Protection Agency (EPA) periodically releases fact sheets regarding the Pensacola, Florida Agrico Site. The investigations relating to groundwater and soil impacts for this site were completed in the early 1990s. During the mid 1990s, cleanup activities were completed for source area soils and sludges. In the late 1990s, EPA approved the remediation and monitoring plan for groundwater, which was implemented in 1999.

This fact sheet presents an update of the ongoing activities associated with the long-term operation and maintenance (O&M) of the Agrico Site in Pensacola, Florida. Also presented are the EPA findings for the two Five-Year Site Status Review Reports completed in 2000 and 2005. These findings conclude that the remedies remain protective of human health and the environment.

## SITE BACKGROUND

The former Agrico Chemical Site, now known as the "Agrico Site," is regulated by the U.S. Environmental Protection Agency (EPA) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan (NCP). Both components make up the Superfund Program. As of May 1997, the sources of contamination related to the former fertilizer manufacturing operations were cleaned up under the Superfund Program, and the site is currently in a long-term natural attenuation monitoring program for groundwater. All former buildings have been removed, and the secured site now consists of a grass-covered field with two large ponds serving as stormwater controls.

The Agrico Site is located in Pensacola, Florida, at 118 East Fairfield Drive, immediately northwest of the Fairfield Drive and Interstate 110 interchange. The Agrico Site covers approximately 35 acres

and lies in an area of predominantly commercial/industrial land use. Another separate and unrelated Superfund site, Escambia Wood Treating Site, is located less than 1,000 feet to the northwest of the Agrico Site. A State of Florida managed environmental site, known as the Kaiser site (also known as Site 348), is located north of the intersection of Palafox and Cross Streets, or about one-half mile south of the Agrico Site.

The Agrico Site has been divided into two separate Superfund management units: Operable Unit 1 (OU-1) and Operable Unit 2 (OU-2). OU-1 includes the area within the property boundaries of the Agrico Site that was used to manage the remedial actions related to on-site impacted soils and sludges. Operable Unit 2 includes impacted groundwater downgradient of OU-1.

The history of the facility began in 1891, with the opening of the Goulding Fertilizer Company. In 1911, the facility was sold to

The American Agricultural Chemical Company (TAACC). The operations were then sold to Continental Oil Company in 1963, and the facility operated as a subsidiary to Continental Oil Company known as Agrico Chemical Company. Continental Oil Company is a legacy company to ConocoPhillips, Inc. The Williams Companies, Inc. (Williams) acquired Agrico Chemical Company from Continental Oil Company in 1972. Operations at the plant ceased in 1975, and

Williams sold Agrico Chemical Company to Freeport-McMoran Resource Partners (FMRP) in 1987. In 1994, Conoco, Inc. and FMRP entered into a consent agreement with EPA to remediate the site. ConocoPhillips, and Williams acting on behalf of Agrico, managed remediation activities for the Agrico Site and continue to manage the monitoring, maintenance, and regulatory reporting for the site.

## SELECTED REMEDY

EPA presented its preferred cleanup plan for the Agrico soil and sludges to the public in August 1992 and held a public comment period. EPA issued a Record of Decision (ROD) for OU-1 (on-site soils/sludges) in September 1992 describing the remedy to address soil contamination. That remedy included:

- Excavation and solidification/stabilization of contaminated soils and sludges;
- Construction of a multimedia Resource Conservation and Recovery Act (RCRA) cap and slurry wall; and
- Implementation of institutional controls and site deed restrictions.

EPA approved the Remedial Design Report for treatment of the site's contaminated soils and sludges in September 1994. The cleanup of OU-1 was completed in April 1997. Groundwater monitoring to determine the effectiveness of the remedy has been ongoing.

After extensive sampling and analysis of many chemical constituents during the assessment phase (1990 - 1993), a risk assessment was performed. The EPA selected seven constituents for long-term groundwater and surface water monitoring. For OU-1, the constituents selected were lead, arsenic, and fluoride.

The EPA issued a ROD for OU-2 in August 1994 to address groundwater impacts. The primary components of this monitored natural attenuation remedy are as follows:

- Groundwater monitoring of the Sand-and-Gravel aquifer
- Surface water monitoring of Bayou Texar
- Door-to-door survey of irrigation wells
- Request access from private landowners to plug and abandon impacted irrigation wells
- Conduct an annual advisory program
- Utilize institutional controls to restrict new wells

EPA approved the Remedial Design Report for OU-2 (groundwater) in 1999. The constituents selected for long-term groundwater and surface water monitoring associated with OU-2 were arsenic, fluoride, combined radium 226 and 228, chloride, sulfate, and nitrate. Monitoring groundwater downgradient of the former Agrico site has been ongoing to map the footprint of the Agrico - impacted groundwater and to assess the changes in the constituent concentrations over time.

## **FIVE-YEAR REVIEW FINDINGS**

Five-Year Reviews are conducted by the EPA to evaluate the protectiveness of cleanup actions taken at Superfund sites. The Five-Year Reviews for the Agrico site specifically focus on determining if the completed soil cleanup activities and the ongoing groundwater cleanup action continue to be effective. EPA also reviews the data to confirm that exposure pathways that could result in unacceptable risks do not develop. To ensure the remedy continues to be protective of human health and the environment, EPA will continue to perform these Five-Year Reviews, and as needed, additional steps will be taken to ensure the protectiveness of the remedy.

The process for a Five-Year Review consists of EPA conducting the following: administrative review, document review, data review, site inspection, and interviews with Participating Responsible Parties, state regulators, irrigation well owners, and homeowners. The following are the summary findings by EPA for the two Five-Year Reviews that have been conducted for the Agrico Site.

First Five-Year Review (February 2000): After the first Five-Year Review of the remedial objectives for OU-1 and OU-2, no areas of noncompliance were identified by the EPA. O&M activities are being conducted as outlined in the O&M plans. The remedy remains protective of human health and the environment. EPA made the following recommendations for actions to be taken between this and the next Five-Year review that was due and submitted in April 2005:

- Continue to monitor groundwater as described in the O&M plans until Remediation Action Objectives are achieved as specified in the ROD.

- After five years from completion of the remedial action, April 2001, a statistical evaluation of the groundwater data will be conducted to confirm the integrity of the containment system. Once the statistical evaluation of the OU-1 monitoring wells has been completed, those wells should be considered for inclusion in the overall groundwater monitoring system, i.e., OU-2.

A statistical evaluation was performed and results presented in the OU-1 Annual Report: Ground Water Sampling Results - May and November 2001, Operable Unit One, Agrico Site, Pensacola, Florida (March 1, 2002). The statistical evaluation demonstrated that the remedy for OU-1 is effective.

Second Five-Year Review (July 2005): The Second Five-Year Review concluded that the remedy at the Agrico site is functioning as intended by the RODs for OU-1 and OU-2, and remains protective of human health and the environment. EPA suggested that the following actions should be taken to address topics identified during the Five-Year Review: identify and routinely sample an upgradient groundwater monitoring location; perform groundwater sampling for radium analysis across Bayou Texar, update and revise the groundwater monitoring plan; update the community relations plan and mailing list; and conduct sediment testing for Bayou Texar.

The items listed above have been and/or are being addressed by the Agrico Responsible Parties to the satisfaction and oversight of EPA (August 2008).

The OU-2 remedy is expected to attain cleanup goals over the estimated seventy-year time frame for restoration of the groundwater resource.

## **CURRENT SITE ACTIVITIES** **OU-1 AND OU-2 MONITORING AND ANNUAL REPORTING**

In 1994, the responding parties agreed to design and construct the remedy for OU-1 under EPA oversight. The cleanup was

started in March 1995 and was completed in the fall of 1997. Construction was

completed for the remedy for OU-2 in the fall of 1999. Operation and maintenance activities consisting of routine inspection, general maintenance, closure cover maintenance, stormwater management, groundwater monitoring well maintenance, the irrigation well abandonment program, and institutional control coordination have been ongoing at the site since 1999. As part of the ongoing activities listed above,

annual reports present progress on activities, data collected, and data evaluation pertaining to changes in constituent concentrations, trends in concentrations (e.g. natural attenuation), groundwater flow patterns, and areal extent of impacts.

## **SITE MAINTENANCE**

As part of the general maintenance for the Agrico Site, bi-annual inspections include detailed inspection of perimeter fencing, gates and locks, signage, and roadway conditions. A security services company provides weekly patrols of the site. Additionally, the cap cover system is

inspected for any subsidence twice a year. On-site mowing occurs monthly. The storm water underdrain system collects all site storm water runoff, so that no storm water runoff leaves the site. This system is inspected and debris and sediment are cleaned out on an annual basis.

## **GROUNDWATER SAMPLING**

A total of 20 long-term monitoring wells are sampled annually as part of the long-term groundwater monitoring program for OU-1 and OU-2. Groundwater collected is analyzed for specific constituents of concern. Monitoring wells monitor both the surficial and main producing zones of the Sand-and-Gravel aquifer. Selected surficial zone monitoring wells have historically been sampled on a biannual basis. In September 2008 EPA approved

discontinuing the OU-1 biannual sampling, but incorporated all OU-1 groundwater sampling into the site-wide annual sampling program. An additional 20 monitoring wells are used for water level measurements only. However, all 40 monitoring wells are sampled once in the same year as the Five-Year Review Report is due. The next Five-Year Review will be conducted before April 2010.

## **SURFACE WATER SAMPLING**

The long-term surface water monitoring network consists of two sampling locations within the saltwater estuary named Bayou Texar. A third sampling location is upstream (to the northwest) of Bayou Texar on freshwater Carpenter's Creek. The same compounds sampled in groundwater are also sampled at these two surface water bodies.

Bayou Texar activities related to the Agrico site include performing surface water, pore

water and sediment analysis in Bayou Texar. This work is being conducted to develop a conceptual site model (CSM) for the purposes of gaining a better understanding of fluoride concentrations and potential exposure pathways to ecological receptors. This assessment is currently being conducted, with field work to be completed in August 2008. A report is scheduled for submittal to EPA in late 2008 or early 2009.

## **MAINTAINING INSTITUTIONAL CONTROLS**

In order to limit exposures to impacted groundwater, EPA requested that certain activities be conducted to restrict groundwater use. The activities are as follows:

### **SITE ACCESS AND DEED RESTRICTIONS**

Access is restricted to the Agrico site. The property is secured by a perimeter chain link security fence with locked gates, and the site has regular security patrols. Restrictive and site informational signs are posted advising the public of the on-site conditions, and a contact phone number is also posted for inquiries.

The site is routinely inspected by authorized personnel and inspection reports on site conditions are completed twice a year. Additionally, the site is inspected after each major storm event. Any damages found are repaired.

Construction or related activities which would interfere with maintaining the site remedial measures are prohibited by the legal deed restrictions. Any use of the property contrary to the Record of Decision is prohibited, as per the covenants filed for the property.

### **WELL CONSTRUCTION MORATORIUM**

On February 22, 2001, the Northwest Florida Water Management District Governing Board passed a moratorium on drilling new wells, including irrigation wells, within the area where impacts exist from the Agrico Site. Currently, this moratorium remains in effect.

### **CONTRACTOR ADVISORY NOTICES**

On an annual basis an advisory notice is mailed by URS Corporation on behalf of ConocoPhillips and Williams to irrigation system contractors, well construction contractors, and to pool construction contractors advising them of the conditions that exist in the vicinity of the Agrico Site. In the advisory notice, the contractors are advised to contact the local Health Department or the Florida Department of Environmental Protection (FDEP) offices for further information prior to any irrigation system, pool or well construction activities.

### **COMPREHENSIVE IRRIGATION WELL SURVEY**

A comprehensive irrigation well survey was completed for the Agrico Site within the area of OU-2. In July 1999, a survey was mailed to the residences in this area. Subsequently, additional wells were identified in the area. Based on this information, a comprehensive listing of locations of irrigation wells and use has been completed for the area.

### **COORDINATION WITH STATE, REGIONAL, AND LOCAL AGENCIES**

Annually a memorandum is distributed to local, regional, and state agencies to solicit information that might change the existing institutional controls currently in place. Additional information about the site, including annual reports, is distributed to the agencies on a regular basis. The agencies include: FDEP (Northwest District), FDEP (Tallahassee), Emerald Coast Utility Authority, Northwest Florida Water Management District, City of Pensacola, the Escambia County Health Department, the Escambia County Neighborhood and Environmental Services Department, and the Florida Department of Transportation (Bonifay District Office).

## SITE INFORMATION REPOSITORY

The EPA maintains site information repositories at the West Florida Regional Library and at the EPA Superfund Records Center in Atlanta. These repositories contain project documents, fact sheets, and reference materials. The EPA encourages you to review these documents to gain a more complete understanding of the site. The informational repositories are listed below. The EPA also has a site information web page for the Agrico Site at [www.epa.gov/superfund/sites/npl/fl.html](http://www.epa.gov/superfund/sites/npl/fl.html). Scroll down the page to Escambia County, select and click on Agrico Chemical Co. You will be directed to information specific to the Agrico Site.

West Florida Regional Library  
200 W. Gregory Street  
Pensacola, Florida 32501  
850-435-1763

EPA Region 4 Superfund Record Center  
61 Forsyth Street SW  
Atlanta, Georgia 30303  
(800) 435-9234

## EPA CONTACT INFORMATION

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

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