

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
American Agricultural Chemical Company - Removal Polrep  
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #1  
Removal Site Evaluation POLREP  
American Agricultural Chemical Company  
A4SN  
Cayce, SC  
Latitude: 33.9682066 Longitude: -81.0594463

**To:**  
**From:** Jeffery Crowley, On-Scene Coordinator  
**Date:** 9/9/2009  
**Reporting Period:**

1. Introduction

1.1 Background

<b>Site Number:</b>	A4SN	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Time-Critical
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Assessment
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>		<b>Start Date:</b>	
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	SCN000407801	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

1.1.1 Incident Category

CERCLA incident category: Inactive Production Facility

1.1.2 Site Description

1.1.2.1 Location

The former American Agricultural Chemical Company (AACC) Site (the "Site") is located in Cayce, Lexington County, South Carolina (33.9682066 latitude, -81.0594463 longitude). The total site area encompasses approximately 69 acres.

The Site is bordered by Frink Street to the north, Foreman Street to the east, businesses to the south, and Julis Felder Road (formerly Pear St.) to the west. The site drains to the south to an unnamed swamp which empties into Monkey Creek. Monkey Creek eventually drains into the Congaree River which is about 1 mile to the east of the Site.

The Site is the location of a former manufacturer of superphosphate fertilizers which began operations in 1914 and continued operating at this site until a fire damaged the plant in the mid 1950's. During the time of operation the facility consisted of a fertilizer factory building, acid chambers, site rail lines, and a water reservoir. Currently, the site had been separated into six separated parcels. Among the businesses operating at the former Site are a concrete pipe manufacturer and a metal recycling facility. These two businesses straddle the area of contamination.

ConocoPhillips Company (COP) has come forth as the corporate successor of AACC.

1.1.2.2 Description of Threat

In August of 2009 the Region 4 Site Assessment Section requested that the Region 4 Emergency Response and Removal Branch (ERRB) evaluate the site for a possible Removal Site Evaluation. The request was based on sampling that was conducted by a contractor for COP at the site that confirmed levels of lead and arsenic in soils above EPA screening levels.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

This Site has had several previous investigations conducted; one by the state and two by URS, contractor for COP.

The first investigation was conducted in March 2003 by South Carolina Department of Health and Environmental Control (DHEC). They collected soil and sediment samples as part of Pre-CERCLIS screening. The results of this report is that there were levels of lead and arsenic in soils that exceeded EPA Region 9 Preliminary Remediation Goals (PRGs) for Industrial soil.

In March 2005 and January 2006 URS conducted further sampling activities at the Site. The goal of the sampling was to characterize the impacts in and down-gradient of the potential source areas. Arsenic and lead were detected in several soil samples collected from the site at or above the screening levels of 20 milligram per kilogram (mg/kg) and 400 mg/kg, respectively. A large portion of the samples that were found to be above screening levels are concentrated in an area located on the southern portion of the concrete facility where it appears impacted soils were stockpiled to construct road ramps leading to an elevated bridge. The maximum detected concentrations of arsenic and lead were 882 mg/kg and 27,192 mg/kg, respectively. Soils ranged in pH from 3.54 to 6.54 standard units. Sediment samples collected from Monkey Creek did not exceed screening levels for arsenic and lead.

As stated earlier, in August 2009, the site was forwarded to ERRB for consideration using CERCLA removal authorities. On September 2, 2009, ERRB completed a review of the site information and concluded that the site meets the criteria as set forth in 40 CFR 300.415 (b)(2) for a time critical removal action.

#### 2.1.2 Response Actions to Date

There have been no response actions to date by ERRB at this Site.

#### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

As stated earlier in this POLREP, ConocoPhillips Company has been identified as the corporate successor to AACC.

### 2.2 Planning Section

Arsenic and lead are both hazardous substances, as listed in 40 CFR 302.4, and referred to in Section 101 (14) of CERCLA, as amended. Arsenic and lead contaminated soils at the Site pose a significant threat to public health. The threat comes primarily from potential human exposure to these hazardous substances. Direct contact and ingestion of these hazardous substances are the primary pathways of exposure. Continued release of these hazardous substances may cause potential chronic health effects to persons living and working nearby.

Arsenic and lead present in on-site surface and subsurface soils pose the following threats to public health or welfare as listed in Section 300.415 (b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

*-Section 300.425(b)(2)(i) "Actual or potential exposure to nearby human populations, or the food chain from hazardous substances pollutants or contaminants."*

DHEC's initial investigation revealed that there is significant arsenic and lead contamination throughout the sampled areas of the Site. Further surface and subsurface sampling investigations conducted by COP confirmed existing elevated lead and arsenic levels. EPA Region 4 Technical Services Section (TSS) recommends a Removal Action Level (RAL) of 800 ppm lead and 40 ppm arsenic for industrial exposure scenarios. Concentrations exceeding these levels at the Site were confirmed through on-site XRF analysis and laboratory analysis. The maximum lead concentration detected in surface soils was 27,192 ppm, and the maximum arsenic concentration in surface soils was 882 ppm.

There are residences that currently border the Site to the southwest. Potential human exposure to site related contaminants may occur via inhalation of windborne dust, inadvertent ingestion of contaminated soil, and direct contact with the contaminated surface soils. In addition, workers working day after day in the areas of impacted soils may be exposed in the same manner.

*-Section 300.415 (b)(2)(iv) "High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate."*

Analytical results reveal that high lead and arsenic levels are present at or near the surface creating a potential for migration to off-site locations. Lead and arsenic concentrations exceeding the RALs of 800 ppm and 40 ppm, respectively, were confirmed through on-site XRF analysis and laboratory analysis.

*-Section 300.415 (b)(2)(v) "Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released."*

As stated earlier in this POLREP, site drainage is to the south toward an unnamed swamp and eventually into Monkey Creek. If the contamination is not addressed with a removal action, then contaminants will continue migrate offsite.

*-Section 300.415(b)(2)(vii) "The availability of other appropriate federal or state response mechanisms to respond to the release."*

DHEC has asked for EPA assistance with this Site. EPA ERRB will work toward negotiating an AOC with the PRP.

Due to the threat and/or future threat to human health from the hazardous substance, the Site achieves removal eligibility base on the removal criteria listed above.

### **2.3 Logistics Section**

No information available at this time.

### **2.4 Finance Section**

No information available at this time.

### **2.5 Other Command Staff**

No information available at this time.

## **3. Participating Entities**

No information available at this time.

## **4. Personnel On Site**

No information available at this time.

## **5. Definition of Terms**

No information available at this time.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

For additional information, please refer to "Documents" on [www.epaossc.org/AmericanAg](http://www.epaossc.org/AmericanAg)."

### **6.2 Reporting Schedule**

## **7. Situational Reference Materials**

No information available at this time.