U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
VCC Greenville - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #1**
Initial Polrep
VCC Greenville
A4GC
Greenville, SC
Latitude: 34.8272220 Longitude: -82.4258330

To:
From: Terry Tanner, On Scene Coordinator
Date: 2/4/2014
Reporting Period: 01/06/2014 to 02/04/2014

1. Introduction

1.1 Background

Site Number:	A4GC	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	10/27/2005
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:		**Start Date:**	
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	A4GC

1.1.1 Incident Category

1.1.2 Site Description

The VCC Greenville Site was formerly a phosphate-based fertilizer production facility located in Greenville, Greenville County, South Carolina. This Site was discovered as the result of a joint effort between EPA, the South Carolina Department of Health and Environmental Control, and ExxonMobile to assess environmental risks at former Virginia Carolina Chemical (VCC) facilities. ExxonMobile was a successor in interest to the VCC Company for environmental liability.

Production of phosphate-based fertilizers using sulfuric acid and the lead chamber process began in the Southeastern United States in the late 1800s, and was well-established by the early 1900's. By the late 1930's, the top three phosphate fertilizer-producing states were North Carolina, South Carolina, and Georgia. Site assessment activities at the VCC Greenville site as well as other former phosphate-based fertilizer facilities have documented the presence of arsenic and lead contaminated soils on properties associated with these former facilities.

1.1.2.1 Location

The former VCC facility, which initially consisted of 43 acres, has since been subdivided into eight parcels with multiple property owners. The Site is located in a predominantly residential area interspersed with industrial properties in Greenville, Greenville County, South Carolina. The Site is bounded to the west by Anderson Road and to the east by the Norfolk Southern Railroad. The southern boundary is approximately 150 feet north of Somerset Street and the northern boundary is located approximately 600 feet northeast of Dunean Street. The Site's geographic coordinates are 34° 49'38" north latitude and 82° 25'33" west longitude.

A review of Sanborn maps from 1913, 1920, 1928, and 1964 depicted the layout and components of the former VCC facility. Main structures included an office, dump shed, acid chambers, pyrite burners, and a water reservoir. Structures associated with the former facility are no longer in place. There is construction debris on portions of the site in addition to three active businesses and a shelter for women and children.

1.1.2.2 Description of Threat

Sampling investigations have documented the existence of arsenic and lead contaminated soils at the

properties associated with the former VCC fertilizer plant. The maximum arsenic concentration in surface soils was 1,260 ppm, and the maximum lead concentration detected in surface soils in was 3,310 ppm. The concentrations of arsenic and lead in site soils exceeded EPA's 2005 Removal Action Levels (RALs) of 40 ppm and 400 ppm, respectively.

Potential human exposure to these site related contaminants may occur via inhalation of windborne dust, inadvertent ingestion of contaminated soil, and direct contact with the contaminated soils. Portions of the property formerly occupied by the VCC fertilizer plant are now the locations for active businesses including a shelter for women and children.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In February 2005, ARCADIS (formerly Blasland, Bouck and Lee), contractor for ExxonMobile, conducted a Removal Site Evaluation (RSE) on the properties associated with the VCC fertilizer facility. The RSE reported the presence of lead and arsenic in soil in close proximity to the location of the former acid chamber. Elevated arsenic and lead concentrations in soils were also observed within the magenta colored slag material present at this site. This slag is a common by-product of phosphate fertilizer operations. Slag material was present from ground surface to approximately 2 feet below ground surface in the immediate area of the former acid chamber. EPA signed an Action Memorandum on October 27, 2005, for a removal action followed by an Administrative Order on Consent on November 1, 2005, to ExxonMobile for performing the work. The Action Memorandum a citied Site-Specific Action Levels of 27 ppm for arsenic which was lower that the existing 2005 RALs for arsenic (40 ppm). ExxonMobile agreed to use Site-Specific Action Levels for arsenic to address State ARARs.

In 2012 Synterra Corporation, a contractor for one of the property owners, conducted a soil investigation and detected lead and arsenic contaminated soil in areas unidentified in previous investigations. In response to these results, ExxonMobile mobilized its contractor ARCADIS to collect additional soil samples and remove/replace the impacted soils. These activities were performed in October 2012 and documented in a letter report to EPA dated January 30, 2013.

In January 2013, Synterra Corporation returned to the site and collected additional samples for the same property owner. The results revealed additional areas having arsenic and lead contaminated soil above the Site Specific Action Levels of 27 ppm and 400 ppm, respectively. After reviewing this information ExxonMobile met with the property owner and performed an expanded sampling investigation of this property in August 2013. Based on these results ExxonMobile submitted a Removal Action Work Plan to EPA on October 2013 for additional soil removal.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

The first soil removal action for this site was performed by ExxonMobile in 2006 on soils within the playground area. A second removal action was performed by Exxon Mobile in 2007. Both of these removal actions were based on the result obtained from the RSE in 2005.

On January 6, 2014, ARCADIS mobilized to the site to begin a third removal action. This removal action was based on information obtained during the August 2013 investigation and the removal activities outlined in the October 2013 Removal Action Work Plan. The initial on-site activities included removal of vegetation and surface debris, utility locating, construction of a haul road, installation of erosion controls, and baseline air monitoring. Approximately 3,964 cubic yards of soil have been excavated and stockpiled for disposal at a subtitle D landfill facility operated by Waste Management Inc. in Homer, Georgia. The final volume of excavated soil estimated for removal is 5,414 cubic yards.

Air monitoring results collected to date demonstrated that dust emissions for arsenic and lead remain below their action levels. The dust particulate monitoring action level utilizes a range from 0.15 to 1 mg/m^3. The personnel TWA Monitoring action levels are set at 0.005 mg/m^3 for arsenic, 0.03 mg/m^3 lead, and 5.0 mg/m^3 for total dust particulates.

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

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

No information available at this time.

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

No information available at this time.

7. Situational Reference Materials

No information available at this time.