

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Royster Guano - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #6  
Progress  
Royster Guano  
B4W2  
Columbia, SC  
Latitude: 33.9782104 Longitude: -81.0094103

**To:**  
**From:** Richard Jardine, OSC  
**Date:** 12/13/2012  
**Reporting Period:** 05DEC12 to 13DEC12

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B4W2	<b>Contract Number:</b>	EP-S4-07-03
<b>D.O. Number:</b>	0131	<b>Action Memo Date:</b>	9/25/2012
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Time-Critical
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	10/23/2012	<b>Start Date:</b>	10/24/2012
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category - Time-Critical Removal Action

**1.1.2 Site Description** - residential detached single family units in metropolitan setting. Prior to development into a residential community, the land was occupied by what appears to be a pond, as identified by old aerial photography. Across Commerce Drive to the south was the former Royster-Guano phosphate facility which processed ore into super phosphate for agricultural use. The facility operated from approximately 1910 to 1935. The process involved heating and reducing the ore using nitric then sulfuric acid. The arsenic is a process by-product/waste from the ore itself. The lead is from the lead-lined vault into which the sulfuric was introduced. Upon removing the process material from the sulfuric bath, arsenic and lead leached from the processed material. The residential community was developed about 10 years after the plant ceased operation.

**1.1.2.1 Location** - the former Royster Guano facility was located at 2095 Commerce Drive, Columbia, SC, but this action only involves certain residential properties on Easy Street and Howe Street and adjacent property currently owned/managed by TVK properties.

**1.1.2.2 Description of Threat** - potential chronic toxicity via inhalation and/or ingestion from lead and arsenic-contaminated soil

**1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results** - The levels of lead and arsenic detected in the shallow surface soil by the early DHEC screening varied from background to well above 27,000 ppm for lead and 11,000 ppm for arsenic, depending upon sample location. The highest values were not on the residential properties but rather close to the former phosphate operation. EPA screening values on the residential properties yielded results that were highly variable from approximately background to 3,000 ppm for lead. Of the 51 parcels in this development, all but 3 were screened or sampled. Most properties had no lead or arsenic above the Region 4 Removal Management Levels. Approximately 11 properties had significant lead and/or arsenic contamination from surface to a depth of 2 feet or below. Two properties had no surface contamination but did exhibit lead and arsenic at 24 inches deep; however, this removal action only addresses that contamination occurring in the top 12 inches.

## 2. Current Activities

### 2.1 Operations Section

**2.1.1 Narrative** - A combined EPA/DHEC sampling expedition collected field information in early August 2012. Lab analyses were received in late August. Several individual face-to-face and public meetings were convened to advise community members as information was gleaned. Media involvement has been strong

but is decreasing.

**2.1.2 Response Actions to Date** - During this reporting period, EPA loaded contaminated soil for disposal, continued with removal of contaminated soil from properties, and returned properties to preexisting conditions. Specific removal activity per individual properties is listed below.

78 Easy - replaced portion of fence that had been removed.

79 Easy - replaced landscape block wall, fine graded topsoil for sod.

80 Easy - repaired landscape block wall, installed fence posts, reset satellite dish, fine graded back yard.

81 Easy - set fence posts, fine graded back yard,

82 Easy - backfill and fine grade back yard, install fence posts, install sod in front yard.

83 Easy - backfill and fine grade back yard, install sod in front yard.

84 Easy - excavate, backfill and fine grade back yard, install sod in front yard.

85 Easy - excavate and backfill backyard and left side of house, remove driveway and prepare for new concrete driveway and landscape block wall.

**2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)** - this search is on-going

#### 2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
non-haz debris	debris	120 cyd roll-off			Richland County LF
non-haz soil	soil	732 tons			Richland County LF

## 2.2 Planning Section

**2.2.1 Anticipated Activities** - EPA is working to tangibly complete this removal action next week. EPA also intends to participate in a public meeting hosted by the City of Columbia and DHEC to discuss the milestones accomplished and what related activity may be following in the coming year.

**2.2.1.1 Planned Response Activities** - EPA will restore 85 Easy Street and excavate remaining contaminated soil from the two properties on Howe Street.

**2.2.1.2 Next Steps** - as backfill and final grading of each lot is accomplished, local fencing, concrete and landscape subcontractors mobilize to complete activity returning properties to original condition.

**2.2.2 Issues** - the current owner of property adjacent to the residential properties along Easy Street has expressed a willingness to conduct a removal action of contaminated soil on his property despite the fact that he had no contribution to the contamination. DHEC and the owner are discussing DHECs oversight role for that action.

## 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.