

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Agrium US Fertilizer Fire - Removal Polrep  
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #2  
Final  
Agrium US Fertilizer Fire  
B4F7  
Hartsville, SC  
Latitude: 34.3885836 Longitude: -80.0749263

**To:**  
**From:** Kenneth Rhame  
**Date:** 4/21/2011  
**Reporting Period:** 2/17/2011

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B4F7	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	2/14/2011	<b>Start Date:</b>	2/14/2011
<b>Demob Date:</b>	2/17/2011	<b>Completion Date:</b>	2/17/2011
<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

Emergency

#### 1.1.2 Site Description

The Agrium Inc. facility that was impacted is a fertilizer repackaging and manufacturing facility in Hartsville, SC. The building is approximately 0.5 acres in size.

##### 1.1.2.1 Location

201 Society Avenue, Hartsville, Darlington County, South Carolina

##### 1.1.2.2 Description of Threat

The facility contained several thousand tons of fertilizer product and raw materials. It is located less than 30 yards from Prestwood Lake which serves as a reservoir and urban recreational lake. Runoff from firefighting water carried fertilizer products and raw materials into the lake. The plume from the fire entered the surrounding community, which is densely populated with a mix of industrial, commercial, and residential properties.

##### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA Telephone Duty initially contacted the facility who reported that the stormwater drains were initially not covered. As firefighting efforts and mechanical segregation of materials occurred throughout the day from the building and surrounding area more drains were identified that had not been covered. US EPA was initially requested to conduct water sampling of fire suppression runoff into Prestwood Lake and later was asked to conduct air monitoring/sampling by SC DHEC.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

SC DHEC began air monitoring after arriving on site. Air monitoring consisted of five AreaRAEs and MultiRAEs. AreaRAEs were equipped with chlorine, ammonia, hydrogen sulfide, oxygen, volatiles, and LEL sensors. After discussions between EPA and SC DHEC, EPA was asked to conduct water sampling of runoff into Prestwood Lake. Due to continued emissions from the fire, EPA was requested to supplement SC DHEC air monitoring and sampling efforts.

### **2.1.2 Response Actions to Date**

SC DHEC began air monitoring after arriving on site. Air monitoring consisted of five AreaRAEs and MultiRAEs. AreaRAEs were equipped with chlorine, ammonia, hydrogen sulfide, oxygen, volatiles, and LEL sensors. SC DHEC air monitoring did not detect any levels of concern.

On 2/14/2011 EPA mobilized to the site and mobilized START assets at approximately 2200.

On 2/15/2011 EPA and START arrived on site at approximately 0100 and integrated with local responders, SC DHEC and the PRP. START collected MSDSs, process, inventory and site data from the PRP and identified surface water sampling locations that consisted of 10 locations representative of the impact to Lake Prestwood. EPA and START teams divided into air and water sampling teams. At 1130 sampling equipment arrived on site and water sampling operations began at 1200. Eleven water samples (including one field duplicate sample) were collected and analyzed for pH, DO, BOD, COD, RCRA metals and zinc, and NPK (nitrogen, phosphorus, and potassium). Air samples were collected and analyzed for RCRA metals plus zinc and asbestos. One asbestos and metal air sample were collected within the plume on the fire site and additional samples were collected downwind within the community. During boat operations for water sampling there was a visible impact to the lake but no observations were made of impacted wildlife.

On 02/16/2011 SC DHEC will continue air monitoring operations and conduct water sampling.

EPA collected a total of four sediment samples (including one field duplicate sample) in shallow waters in the area of the fire site and upstream at the request of the DOI. EPA also conducted water quality monitoring for Dissolved Oxygen, pH, turbidity and conductivity. EPA collected an additional asbestos air sample along with additional metals air samples, including speciation of hexavalent and trivalent chromium). EPA and SC DHEC coordinated throughout response activities with the PRP, Agrium US Inc, to allow them to split samples.

Analytical results for air samples identified only zinc at a concentration of 0.0036 milligrams per cubic meter. No other metals were detected at concentrations above the laboratory reporting limit. In addition to zinc, the following compounds were detected in air samples: nitrous oxide (up to 5,049 parts per million by volume [ppmv]), nitric oxide (up to 141 ppmv), and hydrogen chloride (up to 150 ppmv) were identified inside the exclusion zone; and nitric oxide (up to 2.31 ppmv) was identified in samples collected from downwind locations.

Analytical results for surface water and sediment samples were provided to the US Fish & Wildlife Service for further evaluation.

On February 16, 2011, the fire was extinguished. EPA continued to coordinate with SCDHEC, who took the lead role in oversight and management of future actions at the. On February 17, 2011, EPA and START demobilized from site.

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

Following EPA's demobilization SCDHEC continued to coordinate with the PRP regarding future enforcement activities at the site.

#### **2.1.4 Progress Metrics**

The fire was extinguished on February 16, 2011.

## **2.2 Planning Section**

### **2.2.1 Anticipated Activities**

No further activity by EPA is anticipated.

#### **2.2.1.1 Planned Response Activities**

##### **2.2.1.2 Next Steps**

#### **2.2.2 Issues**

## **2.3 Logistics Section**

N/A

## **2.4 Finance Section**

No information available at this time.

## **2.5 Other Command Staff**

### **2.5.1 Safety Officer**

### **2.6 Liaison Officer**

N/A

### **2.7 Information Officer**

No evacuation was in place but a shelter had been established and approximately 30 residents had voluntarily evacuated to the shelter.

#### **2.7.1 Public Information Officer**

There has been media coverage of the incident. OSC Rhame notified EPA Region 4 Public Affairs, and a SC DHEC PIO was also on site for media coordination.

#### **2.7.2 Community Involvement Coordinator**

N/A

### **3. Participating Entities**

#### **3.1 Unified Command**

#### **3.2 Cooperating Agencies**

Agrium Inc. (PRP) / Hepaco / Davis & Brown  
Darlington County EMA  
Hartsville FD (Multiple Fire Depts. from Mutual Aid)  
SCDHEC  
SC OSHA  
EPA  
ATF

### **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.