

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
REEF Environmental - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #13
Progress Report
REEF Environmental

Sylacauga, AL
Latitude: 33.1888040 Longitude: -86.2640480

To:
From: Jason Booth, OSC
Date: 5/1/2013
Reporting Period: 4/12/2013-5/01/2013

1. Introduction

1.1 Background

Site Number:	B4W3	Contract Number:	EP-S4-07-03
D.O. Number:	TO-0132 Mod 2	Action Memo Date:	2/25/2013
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	10/2/2012	Start Date:	10/2/2012
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:	1026286	State Notification:	ADEM
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

The Reef Environmental Services facility in Sylacauga, Alabama was a centralized waste treatment facility. The facility was permitted to accept industrial waste water (waste water and oily contact water) for treatment and discharge to the Sylacauga public operated treatment works (POTW) waste water treatment plant. Shortly after the first waste deliveries began, reports indicate that numerous odor complaints were received by the local and state government. Within the past few years, the facility has filed for bankruptcy. The State has taken various actions and had limited success in getting the wastes at the Site to be properly disposed. On October 1, 2012, after receiving information that totes were being removed from the facility and numerous odor complaints, Alabama Department of Environmental Management (ADEM) personnel investigated the Site. ADEM personnel could not make entry into the facility but did observe an oily sheen in a stream near the facility as well as a large bulge in the tarp covering the Biological Treatment Basin at the facility. Later in the day on October 1, ADEM requested assistance from the Environmental Protection Agency to assess the Site and to assist with implementation of emergency stabilization measures. On the morning of October 2, 2012, OSCs Francendese and Harper were mobilized from Birmingham, Alabama to meet with ADEM and assess the situation. Upon initial assessment, OSC Francendese secured the Site and ceased removal of on-site totes by private party contractors. In addition, he verbally notified the PRPs of potential hazards which included the accumulation of hazardous substances (including hydrogen sulfide) under the tarps/liners covering the basins. While the PRP provided verbal access, he indicated that he was not able to perform the necessary stabilization actions required by EPA. OSC Francendese requested the dispatch of the on call responder. EPA OSC Neal was dispatched to the scene. Assessment activities continued throughout the day and evening of October 2, 2012.

1.1.2.1 Location

71 Twin Street, Sylacauga, Talladega County, Alabama

1.1.2.2 Description of Threat

The abandoned facility has several priority issues that will be addressed under a phased approach. The first phase involved the emergency response action that mitigated the trapped gases under the 3 million gallon biological reactor tarp/liner of Equalization Basin No. 2 (EQ 2). An additional 3-million gallons treatment basin, Equalization Basin No. 1 (EQ 1) also has a failed tarp/gas retention system that was not under high pressure, but required mitigation work. Trapped gases exist under this liner and will be addressed under the emergency phase of the response action. The trapped gases total approximately 175,000 cubic feet contained dangerous elevated levels of volatile organics and hydrogen sulfide and presented a release

and explosion risk. This facility exists within 1000 feet of a residential neighborhood.

Additional threats exist in the form of an oily sheen release to the nearby creek as well as abandoned chemicals onsite.

The first phase addressed the release threat of the trapped gases and release of EQ 2 to Shirtee Creek followed by a series of chemical treatments of EQ 1 & 2 to stop the emissions of H₂S.

The second phase will involve an analytical assessment of the waste water inventory of the Site. Based on the technical review of the analytical a treatment and disposal scheme will be implemented for the estimated 14-million gallons of waste water in the three major waste water basins and two clarifiers.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The initial assessment identified the trapped gases under the tarp/liner as well as the oily sheen being released to the creek. The rotten egg odor was later identified to be both elevated volatile organics and hydrogen sulfide. Subsequent site walkthru identified abandoned hazardous substances at the facility both on the facility grounds proper and within the lab.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The facility is an abandoned former waste treatment facility that was referred to the EPA ERRB by ADEM. Subsequent assessments identified unstable conditions relating to accumulating gases (organic and hydrogen sulfide) under the containment tarp/liner covering Equalization Basins 1 & 2.. Additional assessments identified an oily sheen being released from the facility as well as abandoned hazardous chemicals both on the facility grounds and in the onsite facility lab.

2.1.2 Response Actions to Date

Week of Apr 15, 2013 - Basin 1 was treated with approximately 5,000 gallons of 35% hydrogen peroxide. The basin was monitored for Dissolved Oxygen (DO) levels and Oxidation Reduction Potential (ORP) numbers as well as air monitoring for hydrogen sulfide emissions while gradually bringing the aerators on to run continuously. Basin 2 ORP and DO have improved since it was retreated with hydrogen peroxide. Emergency and Rapid Response Services (ERRS) finished cleaning all unused components from the previous treatment system and those pieces were removed from rent. The waste water from Basin 3 had further toxicity studies using 1%, 2% and 5% dilution factors. The OSC and Alabama Department of Environmental Management (ADEM) concurred to land apply treated water on site to speed up emptying the basins. ERRS crews began assembling piping to land apply waste water.

Week of Apr 22, 2013 - Basin 2 was retreated with approximately 5,000 gallons of 35% hydrogen peroxide. START set up air quality instruments in a nearby neighborhood to expand the footprint of air monitoring. Emergency and Rapid Response Services (ERRS) continued to work on the land application watering system and preparing equipment to discharge to Shirtee Creek. Toxicity studies from Basin 3 using 1%, 2% and 5% dilution factors show exceptional survival rates for acute exposure up to 72 hours. Chronic toxicity analysis for the 1%, 2% and 5% dilution factors was still ongoing. Additional bag filters arrived on-site and were installed for discharge.

Week of Apr 29, 2013 - Emergency and Rapid Response Services (ERRS) continued to work on land applying water to the northern field. Crews connected rental treatment equipment to the existing treatment system on site in order to discharge into Shirtee Creek. Chronic toxicity analysis from the bench test for the 1%, 2% and 5% dilution factors showed no significant impact to the local ecosystem. A full spectrum analysis and toxicity study of the effluent wastewater from the new treatment system will be performed before discharging to the creek.

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

The Office of Environmental Accountability (OEA) is pursuing enforcement.

2.1.4 Progress Metrics

Currently, Initial oxidative treatment listed below is 35% hydrogen peroxide to control hydrogen sulfide gas emissions.:

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Aeration Basin	Water	7-mil gal	N/A	Oxidation	TBA
Equalization Basin No. 2	Water	3-mil gal	N/A	Oxidation	TBA
Equalization Basin No. 1	Water	3-mil gal	N/A	Oil Removal	TBA
Clarifier No. 1	Water	250K gal	N/A	TBA	TBA
Clarifier No. 2	Water	1-mil gal	N/A	Oxidation	TBA
Oily Sludge	Soil	600 tons		Stabilize	Started
Drums	Liquid	15 drums			TBA
Lab Packs	Liquid	13 packs			TBA

2.2 Planning Section

2.2.1 Anticipated

Continue coordination with ADEM and Local officials.

2.2.1.1 Planned Response Activities

Begin treatment of the approximately 18-million gallons of waste water and discharge it to Shirtee Creek per parameters established by ADEM.

2.2.1.2 Next Steps

Begin discharging to Shirtee Creek.

2.2.2 Issues

- Discharge to Shirtee Creek with a dilution factor.

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

2.5.2 Liaison Officer

2.5.3 Information Officer

Ms. Kerisa Coleman (Region 4 CIC)

3. Participating Entities

3.1 Unified Command

EPA
ADEM

3.2 Cooperating Agencies

City of Sylacauga
Talladega County EMA
Alabama EMA

4. Personnel On Site

- EPA (OSC) - 1
- START (Tetra Tech) - 1 (for off site sampling on Shirtee creek and Viper Support)
- ERRS (WRS Compass) - 3
- ADEM - 1

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

None available at this time