

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #14
Progress Report
REEF Environmental

Sylacauga, AL
Latitude: 33.1888040 Longitude: -86.2640480

To:
From: Jason Booth, OSC
Date: 6/6/2013
Reporting Period: 5/01/2013-6/06/2013

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 May 6, 2013 - Equalization basin #1 was treated with an additional 5,000 gallons of Hydrogen Peroxide on May 3rd. On May 2nd and 3rd, water from on-site flocculation clarifier was transferred to aeration basin #3 (approximately 500,000 gallons) and injection systems for flocculants: aluminum sulfate ("alum") and a polymer additive were installed. The clarifier was filled with water from basin #3 and injected flocculants between May 4th and May 6th. On May 7th, 40,000 gallons of water was pumped through the treatment system (basin #3 to clarifier with flocculants, bag filtration, activated carbon, and sedimentation tank with peroxide injection) and discharged to the land application zone. Effluent samples were collected and sent to a laboratory for chemical and toxicity analysis. Land application resumed on May 8th; discharge to the creek will begin when sample results are within approved parameters. Soil samples are being collected to evaluate conditions in the land application zone.

Week of May 13, 2013 - The On-Scene Coordinator (OSC), Alabama Department of Environmental Management (ADEM), Agency for Toxic Substances and Disease Registry (ATSDR), and an EPA community involvement coordinator (CIC) met with community members during availability sessions to discuss citizen's concerns and questions regarding site activity. The OSC also conducted interviews with The Daily Home, CBS 42 and Fox 6. Preliminary data from the most recent toxicity study showed exceptional survival rates for organisms up to 10% dilution. START is preparing additional air and water quality instruments for deployment to the site. ERRS began the process of removing sludge build-up in the clarifier used during the treatment process. Additional hoses and pumps were brought onto the site in order to remove sludge from the other clarifier on-site and transfer wastewater from basin 1 into basin 3. Crews have been land applying treated wastewater onto the northern field every day at an average of 60,000 gallons/day.

Week of May 20, 2013 - ERRS crews began the discharge of treated water to Shirtee Creek. As of May 21st, approximately 236,000 gallons of treated water from Aeration Basin 3 has been discharged. It is estimated that an additional 300,000 gallons will be treated and discharged by the end of the week. Crews have been slowing pumping water from Equalization Basins 1 and 2 into Aeration Basin 3. The Mayor of Sylacauga visited the site on May 22nd. On-Scene Coordinator (OSC) Eichenger provided oversight while OSC Booth was on leave.

Week of May 27, 2013 - 145,100 gallons of treated water was discharged to Shirtee Creek on May 22nd. Beginning May 23rd, the treatment system was shut down for the holiday weekend and has also undergone several repairs and maintenance adjustments. By 5/29/2013, total discharge of treated water to the Shirtee Creek has reached 417,900 gallons and total discharge of treated water to land application has reached 1,470,200 gallons. Sylacauga Mayor Murphree visited the site on May 22nd and will return on May 30th to observe effluent sample collection activities with EPA and ADEM. The sampling plan has been adjusted with agreement between EPA and ADEM on a revised frequency for effluent and creek sampling as well as a list of target analytes and monitoring parameters.

Week of June 3, 2013 - Emergency and Rapid Response Services (ERRS) continued discharging treated water into Shirtee Creek. The total volume of water discharged into the creek is currently at 1,022,000 gallons. Crews also continue to land apply the treated water to the field on site. The total volume of land applied water is 1,592,544 gallons. Two additional ERRS personnel arrived on site at the request of the On-Scene Coordinator (OSC) in order to create two work shifts to increase the total daily volume of treated water discharged to Shirtee Creek. Basins 1 and 2 will be treated with another 5,000 gallons of 35% hydrogen peroxide each to keep hydrogen sulfide emissions suppressed. Effluent and creek samples will be collected and analyzed throughout the duration of the project in addition to continued air monitoring.

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) - 5

- 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