

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
County Line Recycling Methane - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #3
Final
County Line Recycling Methane

Tucker, GA
Latitude: 33.8672800 Longitude: -84.1863600

To:
From: Benjamin Franco, On-Scene Coordinator
Date: 9/27/2010
Reporting Period: March 11 through March 18, 2010

1. Introduction

1.1 Background

Site Number:	B464	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	PRP	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	3/7/2010	Start Date:	3/7/2010
Demob Date:	3/18/2010	Completion Date:	3/18/2010
CERCLIS ID:	GAN000410543	RCRIS ID:	
ERNS No.:	933241	State Notification:	GAEPD
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

On March 7, 2010, EPA R4 Phone Duty Officer received NRC #933241 that reported the release of methane from an abandoned landfill. The methane had collected in several communications vaults and caused a flash explosion that lifted several manholes. Due to the threat of explosion, GA Environmental Protection Division requested EPA's assistance with air monitoring. Phone Duty Officer dispatched OSC Benjamin Franco to assess the situation.

1.1.2 Site Description

The site is an unlined landfill that received municipal waste from approximately 1927 to 1986. The landfill operator began operating the landfill as an inert (concrete, asphalt, brick, block) landfill in 1986. Due to uncontrolled methane production and releases and groundwater contamination, GA EPD has developed a Corrective Action Plan. The methane recovery system is ready for construction and awaiting grant of access from one property owner. GA EPD is seeking an Emergency Order for access to implement their Corrective Action Plan and requested assistance from EPA in collecting data to support the Access Order.

1.1.2.1 Location

The site is located at 6321 Lawrenceville Hwy. in Tucker, Georgia.

1.1.2.2 Description of Threat

Methane gas is collecting in utility vaults at explosive levels.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On March 8, 2010, OSC Franco assisted GAEPD with air monitoring inside several utility vaults along Lawrenceville Highway near Mt. Industrial Blvd. The OSC used the following direct instruments: a Flame Ionization Detector (FID) TVA 1000 and a MultiRae Four Gas Photo Ionization Detector. OSC Franco conducted a sweep of three vaults that were previously identified by Gwinnett Fire Department. AT&T and their contractors vented two vaults along Lawrenceville Highway, while the Gwinnett County Fire Department's Hazardous Materials Team (HAZMAT) conducted air monitoring in six nearby manholes. During the monitoring it was noted that when ventilation operations in the two vaults was terminated, the LEL would increase to above 100%. As a precaution, the Gwinnett County Police closed 0.25 mile of two lanes of Lawrenceville Highway to allow for venting operations.

On Wednesday March 10, 2010, GaEPD Land Protection Branch requested EPA technical assistance to conduct screening for combustion gases at the County Line Recycling Facility/Crymes Landfill, and assist

with monitoring LEL concentrations in areas along Lawrenceville Highway.

2. Current Activities

2.1 Operations Section

2.1.2 Response Actions to Date

On Thursday, March 11, 2010, OSC Buerki, START and GaEPD personnel met to discuss the facility history, current response activities, and EPA/START activities for the day. GaEPD, representatives from AT&T, and the AT&T contractor were already at the response area ventilating gas vapors from AT&T utility vaults and performing oversight activities. The southbound lanes of Lawrenceville Highway remained closed with southbound traffic routed into the center lane to allow responders access to the utility vaults.

EPA and START were informed that AT&T intended to abandon the utility vault exhibiting high methane gas concentrations located in front of the landfill entrance by filling the vault with sand to reduce the amount of open air and thus reduce the potential for explosive environment. The utility vaults adjacent to the landfill entrance vault had manhole access openings located on and next to the road, providing access for ongoing ventilation and air monitoring activities. AT&T stated they planned to modify the vault west of Jimmy Carter Boulevard by sealing it with a polymer sealant and plugging the line gangways to reduce vapor intrusion.

START, EPA, and GaEPD completed an initial field reconnaissance to determine the extent of the methane gas release and to establish air monitoring locations. During the reconnaissance, START used a Dräger X-am 7000 4-gas detector, a MultiRAE 4gas detector, and a TVA-1000 Photoionization Detector/Flame Ionization Detector (PID/FID) to monitoring %LEL and methane air concentrations within the utility vaults, sewer openings, boreholes, methane monitors, storm drains, and piezometers located along Crymes Landfill at Lawrenceville Highway. Equipment used during the reconnaissance and throughout air monitoring activities was calibrated before use. All equipment was calibrated to the manufacturers standard. Following the initial reconnaissance, START recorded air monitoring data from the boreholes, methane monitors, piezometers, sewer openings, storm drains, and utility vaults near the response area along the landfill property line. OSC Buerki screened several locations for specific volatile organic compounds (VOCs) including trichloroethylene, tetrachloroethylene, and vinyl chloride using a Dräger Chip Measurement System (CMS). Geographic coordinates were collected from each screened location. Among the locations screened, methane vapors could actually be seen emanating from methane monitoring well MM-5 upon removal of the well cap. The vapor concentrations at many screening locations exceeded the LEL concentration range by 100%; and the TVA-1000 FID's flame went out at one location where methane concentrations exceeded 10,000 parts per million (ppm).

On March 12, 2010, START, EPA, GaEPD, and representatives for County Line Recycling met to discuss the response activities to date and to determine necessary actions that needed to occur at the landfill. The County Line Recycling representative granted property access for EPA and START to conduct methane screening activities on the landfill property. START and OSC Buerki began air monitoring activities at the utility vault west of the landfill across Jimmy Carter Boulevard. AT&T informed OSC Buerki that they would be stopping ventilation of the utility vault west of the landfill to refuel the vehicle supplying power to the ventilator. When the ventilation stopped, the AreaRAE recorded % LEL data as high as 99.4% LEL. When ventilation resumed, the %LEL rapidly decreased to approximately 7% LEL.

On March 12, 2010, at approximately 1230, EPA warehouse support personnel (G2) arrived with an EPA trailer, an all-terrain vehicle (ATV), and several AreaRAE to assist with collecting real-time continuous air monitoring data. With assistance from G2 personnel, START placed the AreaRAEs next to several utility vaults and sewers along Lawrenceville Highway. Air sampling hoses were placed into the vaults and sewers to collect continuous %LEL concentrations. The AreaRAEs transmitted real-time air monitoring data to a laptop computer. In addition to %LEL, the air monitoring equipment also detected CO, H₂S, O₂ and VOCs. AreaRAE Unit No. 1, No. 3, and No. 5 were placed in the utility vaults; Units No. 2 and No. 4 were placed in storm sewer manholes between the vaults. AreaRAE Unit No. 6 was staged at the EPA trailer near the landfill entrance to collect ambient air data; it was also used to spot screen at various locations along Lawrenceville Highway and at the landfill.

During the afternoon of March 12, 2010, START walked the wooded areas north on the landfill property to search for additional methane and groundwater monitoring wells for the purposes of collecting additional %LEL data and to determine the extent of the methane gas release. Only one additional well was located due to the dense tree cover, and no useful readings could be collected because the well was locked. Upon returning to the EPA Command Post, OSC Buerki requested START to screen a small puddle located alongside the landfill roadway that appeared to have gas bubbles emanating from the ground through the water. The gas bubbles released had a %LEL reading above 100% and an FID reading of 20,000 ppm. START returned to Command Post and relayed the air monitoring results to the OSC after taking photographic and video graphic documentation of the venting gas. At 1900 hours on March 12, 2010, START and G2 retrieved the AreaRAE monitors from the storm drains and utility vaults located along Lawrenceville Highway. START downloaded data from the AreaRAE logging collected during the air monitoring event. G2 personnel packed the AreaRAE equipment and departed with the EPA trailer. EPA resources departed the landfill at 2000 hours.

On March 18, 2010, START and OSC Mr. Franco returned to the response area to screen the utility vaults to confirm that the %LEL in the vaults had returned to normal levels. The utility vault located west of the landfill across Jimmy Carter Boulevard had been sealed with an impervious coating inside the vault and the line gangways were plugged. The manhole cover was off and a "vent box" constructed of construction fencing covered the manhole opening. START lowered a MultiRAE probe into the vault and documented a reading of 0%LEL. The AT&T utility vault located east of the abandoned AT&T utility vault did not demonstrate the high concentrations found in the vault west of Jimmy Carter Blvd, and was not modified. The vault was closed, however screening could still be conducted through an opening in the manhole cover. START documented an 18% LEL concentration in this vault. START contacted the AT&T representative, and informed him of the 18% LEL reading in the utility vault east of the landfill. The representative

confirmed that AT&T contractors had sealed the utility vault west of the landfill with a polymer and plugged the line conduits to stop the release of gas into the vault.

Childcare Facility Screening

The GaEPD had received a phone call from a local resident earlier in the week during response activities requesting that air screening be completed at Kids-R-Kids, a childcare facility located at 6000 Mimosa Circle, approximately 0.5 mile east of the landfill. On March 12, 2010, OSC Buerki spoke with the owner/director of Kids-R-Kids, and arranged to screen her childcare facility for explosive gas. START personnel screened the foyer, cafeteria, bathrooms, office, and all classrooms for methane gas using a MultiRAE® 4-Gas instrument. START personnel documented that all areas had 0%LEL and 20.9% oxygen concentration readings. The facility's Director was informed of the monitoring results.

On March 18, 2010, EPA OSC Franco visited The Sunshine House childcare facility located at 4220 Jimmy Carter Boulevard to conduct methane gas screening. START assisted with the assessment. All common areas of the facility were screened for explosive gas and oxygen concentrations using a MultiRAE® 4-Gas instrument. No readings of concern were identified at the facility. The facility's Director was informed of the monitoring results and was given contact information if she had any further concerns or requests.

EPA completed all site activities on March 18, 2010 and demobilized all resources.

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

GAEPD will pursue enforcement actions againsts the current property's owners.

2.2 Planning Section

2.2.1.2 Next Steps

GAEPD will pursue an order with the property owners and require the installation of a methane gas collection system.

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.