

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Former Mount Clemens Landfill - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #3  
Progress Report  
Former Mount Clemens Landfill  
B5ZT  
Mount Clemens, MI  
Latitude: 42.6002000 Longitude: -82.8683000

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**Date:** 12/22/2011

**Reporting Period:** 11/11/2011 - 12/22/2011

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B5ZT	<b>Contract Number:</b>	EP-S5-08-02
<b>D.O. Number:</b>	0094	<b>Action Memo Date:</b>	8/30/2011
<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>	11/1/2011	<b>Start Date:</b>	11/1/2011
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	MIN000510529	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	MDEQ
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Time Critical Removal Action

#### 1.1.2 Site Description

The Former Mount Clemens Landfill (Site) is a 54.5 acre former landfill which operated from the 1940s -1960s. Residential buildings and a waste water treatment plant were constructed atop and adjacent to the site in the late 1960s - early 1970s. The site is bordered by residential homes along the northwest side and two large apartment buildings and townhomes to the south. The Park Place Apartments (constructed directly on top of waste at the southwest corner of the site) is a 10-story, 187 unit senior housing complex. The Clinton Place Towers (located at the southeast corner of the site) is a 7-story, affordable housing complex for seniors with 283 units in 14 buildings. The U.S. Department of Housing and Urban Development (HUD) estimates that approximately 750 people live in the two housing complexes. The Mount Clemens Wastewater Treatment Facility is located on the north end and northeast corner of the site. The City owns and operates the Wastewater Treatment Facility.

##### 1.1.2.1 Location

The site is located north of N. River Road, east of Park Street, South of Clara Street and N. Broadway, and west of Macomb Daily Drive (T.2.N / R.13.E) in Mount Clemens, Macomb County, Michigan 48043.

**1.1.2.2 Description of Threat**

Methane gas is being released from decomposing waste at the site. The pathway to potential receptors is through subsurface soils into residential buildings located both on and adjacent to the site. Explosive levels of methane gas have been detected in on-site borings in past investigations and quarterly sampling since June 2008. Methane gas is combustible between a lower explosive limit (LEL) of 5% and an upper explosive limit (UEL) of 15% by volume in air. The MDEQ draft screening level for methane gas is 1.25% (25% of the LEL). In April 2011, methane gas was detected in 14 of 54 monitoring wells sampled, ranging in concentration from 0.1% to 44.1% methane. Five of the wells exceed the Michigan Department of Environmental Quality (MDEQ) draft screening level of 1.25% methane. The majority of these monitoring wells are located immediately adjacent to the Park Place Towers and Clinton Place Apartment complexes.

Methane has also been detected in groundwater across the site at concentrations above MDEQ's Flammability and Explosivity Screening Level (FESL) of 520ug/L. Thirteen of seventeen groundwater wells exceed the FESL.

On January 7, 2011, the Agency for Toxic Substances and Disease Registry (ATSDR) completed an evaluation and issued a letter to MDEQ concluding that the presence of explosive methane levels in the subsurface soils near the Park Place Towers and Clinton Place Apartment complexes poses an urgent public health hazard.

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

In August 2010, HUD, ATSDR, MDEQ, Macomb County, and the City of Mount Clemens formed a technical team to monitor and address methane issues at the site. The City requested U.S. Environmental Protection Agency (EPA) assistance in April 2011. EPA reviewed quarterly monitoring data, results of a pilot study where a vacuum was applied to existing passive vent wells, and a work plan proposing conversion of the passive vent system to an active extraction system. EPA conducted a site visit to inspect and assess the site and discuss the work plan with the City in July 2011.

Based on a review of existing information and the removal site inspection, EPA determined that converting the passive venting system to an active extraction system will control off site migration of methane from the site.

**2. Current Activities**

**2.1 Operations Section**

**2.1.1 Narrative**

The objective of the project is to convert the existing passive trench and vertical well vent system to an active gas extraction system to mitigate threats posed methane gas migration at the site.

**2.1.2 Response Actions to Date**

As of December 22, 2011, the following activities were completed:

- Plastic housings were constructed around all sub-surface valves;
- Two pre-fabricated equipment sheds containing explosion proof components such as heavy duty blowers, piping, condensate knock-out tanks, filters, heaters, lighting and ventilation were installed in Areas 1 & 2;
- The two equipment sheds were connected to the HDPE sub-surface piping which run to the extraction wells;
- Two solar-operated flares were installed and connected to the equipment sheds and tested. These flares will burn off methane gas collected from the extraction wells by the equipment sheds;
- The flare pads were fenced off with temporary plastic fencing until they can be secured permanently; and
- Two custom electric transformers were ordered to convert power for the equipment sheds.

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

No information is available concerning contributors of waste to the landfill. The City of Mount Clemens owned and operated the landfill during its operation and continues to own the property. The only known PRP at this site is the City, however, the City does not have funds available to control methane migration.

**2.1.4 Progress Metrics**

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
None					

<b>R5 Priorities Summary</b>		
This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	0
	Cubic yards of contaminated sediments removed and/or capped	0
	Gallons of oil/water recovered	0
	Acres of soil/sediment cleaned up in floodplains and riverbanks	0

Stand Alone Assessment	Acres Protected	54.5
	Number of contaminated residential yards cleaned up	0
	Human Health Exposures Avoided	750
	Number of workers on site	10

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

The following activities are anticipated to take place in the final reporting period:

- The City of Mount Clemens will provide electrical service to the equipment sheds
- Two electric transformers will be installed at the sheds to convert power for operation of the equipment
- An Operations, Maintenance and Monitoring Plan will be developed by a consultant to the City of Mount Clemens
- The system will be started, tested and monitored by a contractor/consultant to the City of Mount Clemens

#### 2.2.1.1 Planned Response Activities

None

#### 2.2.1.2 Next Steps

A Post Removal Site Control is being prepared by the City of Mount Clemens to operate, monitor and maintain the system. An Operations, Maintenance and Monitoring Plan is under development to ensure the proper operation and continued care of the system. The City will follow this plan in the future to ensure that the system is operating properly and controlling methane migration off site.

#### 2.2.2 Issues

None

## 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

A Health and Safety Plan (HASP) was prepared for the project by the ERRS contractor.

### 2.5.2 Liaison Officer

N/A

### 2.5.3 Information Officer

The City of Mount Clemens Department of Public Services Director is serving as information officer for the project. A fact sheet was developed for the community and distributed to all residents of the Park Place Towers, Clinton Place Apartments, Sunset Manor Apartments, and Holiday Garden Apartments. A final fact sheet will be developed once the project is complete and the system is up and running by the Michigan Department of Community Health.

## 3. Participating Entities

### 3.1 Unified Command

N/A

### 3.2 Cooperating Agencies

Agency for Toxic Substances and Disease Registry  
U.S. Department of Housing and Urban Development  
Michigan Department of Environmental Quality  
Michigan State Housing Development Authority  
Michigan Department of Community Health  
Macomb County Health Department  
City of Mount Clemens

## 4. Personnel On Site

U.S. EPA - 1  
ERRS - 1  
City of Mount Clemens - 1  
AKT Peerless - 1

## 5. Definition of Terms

N/A

## 6. Additional sources of information

**6.1 Internet location of additional information/report**

<http://www.epaosc.org/formermountclemenslandfill>

**6.2 Reporting Schedule**

A final POLREP will be prepared once the system is up and running. This is expected to be in mid-January.

**7. Situational Reference Materials**

N/A