

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #1**
Initial Progress Report
Former Mount Clemens Landfill
B5ZT
Mount Clemens, MI
Latitude: 42.6002000 Longitude: -82.8683000

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Date: 11/4/2011

Reporting Period: 10/27/11 - 11/4/11

1. Introduction

1.1 Background

Site Number:	B5ZT	Contract Number:	EP-S5-08-02
D.O. Number:	0094	Action Memo Date:	8/30/2011
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	11/1/2011	Start Date:	11/1/2011
Demob Date:		Completion Date:	
CERCLIS ID:	MIN000510529	RCRIS ID:	
ERNS No.:		State Notification:	MDEQ
FPN#:		Reimbursable Account #:	

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 November 4, 2011, the following activities have been undertaken:

- The passive vent well on the Park Place Towers property was cut down and capped;
- Three new extraction wells were drilled at the northwest corner of the landfill;
- Four new extraction wells were drilled next to the Clinton Place Apartments;
- Trenching was completed for pipes to connect extraction wells to solar-operated flares (yet to be installed); and
- Two soil vapor extraction systems and two solar operated flares have been ordered from a local vendor

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>

2.2 Planning Section

2.2.1 Anticipated Activities

The following activities will take place in the next reporting period:

- Sub-surface piping will be installed connecting the 7 new extraction wells to the soil vapor extraction/solar-operated flaring stations (yet to be installed);
- The passive trench and existing passive vent wells will be converted and connected to piping which will run to the vapor extraction/solar-operated flaring stations (yet to be installed); and

- The two flaring stations will be prepared for installation of the soil vapor extraction sheds/solar-operated flaring stations.

The soil vapor extraction system and solar-operated flares required special ordering and are currently being built to system specifications. The equipment was ordered at the end of October and is expected to be delivered by late November. Once the extraction wells and subsurface piping is completed, the project will be placed on hold until the soil vapor extraction units and solar-operated flares are received.

2.2.1.1 Planned Response Activities

N/A

2.2.1.2 Next Steps

A Post Removal Site Control will be prepared with the City of Mount Clemens to operate, monitor and maintain the system. An Operations, Maintenance and Monitoring Plan will be developed 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 on November 1, 2011.

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
American Drilling - 3
City of Mount Clemens - 5
AKT Peerless - 2

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

Due to heightened awareness and interest in the site by surrounding residents, bulletins are being issued every couple of days to update neighbors on work progress.

7. Situational Reference Materials

N/A