

United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Saturday, December 22, 2007

From: Steven Faryan

Subject: On-going and Anticipated Activities
Mallard Lake Landfill
26W580 Schick Road, Hanover Park, IL
Latitude: 41.9525000
Longitude: -88.1442000

POLREP No.:	5	Site #:	B5MH
Reporting Period:		D.O. #:	
Start Date:	11/6/2007	Response Authority:	
Mob Date:	11/6/2007	Response Type:	Time-Critical
Demob Date:		NPL Status:	
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

EPA's Emergency Response Branch was requested to assist the IEPA in March of 2007 at the Wayne Township Ground Water site in Northern DuPage County, Illinois. U.S. EPA upon reviewing available data and well logs from the Mallard Lake landfill discovered a boring conducted by BFI contractor Hearst and Assoc in April of 2006 with methane levels of 17.9% concentration within 50 feet of a residential neighborhood on the West perimeter of the landfill. U.S. EPA requested the operator of the landfill, BFI, and owner of the landfill, DuPage Forest District, to conduct an investigation outside the West boundary, South Boundary and on the Right-of Way to determine the extent of the gas migration off site. This landfill gas has historically contained high levels of Volatile Organic Compounds including vinyl chloride which was reported by the landfill operator to lead to ground water contamination exceeding the Maximum Concentration Limit (MCL) for vinyl chloride at the Western perimeter of the landfill.

During the first phase of the investigation conducted November 6-10, high levels of methane exceeding 75% in concentration were detected in temporary monitoring wells at locations within 30-50 feet from residential homes. The permeable zone containing this methane is 40-45 beneath the ground surface. BFI consultants STS, began installation of shallow monitoring wells on November 31, 2007.

Current Activities

BFI and STS continue to investigate the methane gas migration extent through CPT soundings and probe installations west of the Mallard Lake Landfill. During this reporting period, WESTON START conducted oversight of five CPT soundings and gas probe installations (by STS) to a maximum depth of 60 feet (Table 3) along the Right of Way of Schick Road (GX-5,6 and 7) and DeForest Lane (CP24 and CP25).

The three probes installed along Schick Road detected no methane gas concentrations during installation. The two probes along DeForest were monitored during installation with a MultiRae. Probe CP24 detected zero LEL, 0.3 ppm VOC and 21.9% oxygen. Probe CP25 detected zero LEL and oxygen of 20.4% (Table 3).

Two proposed CPT locations along Whitney (CP21 and CP22) will need to be re-located due to the presence of utilities revealed on December 13th, by the Hanover Park Public Works vacuum truck. As of December 17th, STS has investigated and installed 31 CPT probes at depths between 36 and 66 feet deep to investigate the potential methane gas migration extent. A comprehensive round of methane gas monitoring was conducted by STS from December 19-20, 2007 (Table 4). Also, no residential slam-bar sampling has been conducted since December 13, 2007.

Cone penetrometer investigations and installations ceased on December 19, 2007 due to the Holidays and are expected to resume on January 2, 2008.

U.S. EPA along with STS and WESTON START continue to screen residential homes for the potential

presence of explosive gas. BFI's public relations consultants, Reputation Partners, continue to call local residents (in the investigation area) to schedule appointments for air monitoring and installation of explosive gas meters. During this reporting period, STS and WESTON screened 11 homes within the investigation area (Table 5). As of December 20, 2007, 170 homes have been visited and 100 homeowners have allowed their residence to be screened. Thus far no explosive gases have been detected in any homes. In addition, during this reporting period, 10 explosive gas detectors were installed in residences within the investigation area (upon obtaining approval of residents). To date, U.S. EPA, STS (BFI contractors) and WESTON have installed 78 explosive gas detectors (See POLREP #4 for gas meter installation description).

Residential screening and gas meter installations are expected to continue through December 22, 2007; residential screenings and gas meter installations and scheduling will resume after the Holiday break on January 2, 2008. However, Reputation Partners will be addressing any calls received from residents during the Holidays inquiring about screening and gas meter installations. Screening and gas meter installations will be supported by STS and WESTON.

Work plans submitted by BFI and STS are currently being reviewed by U.S. EPA and their consultants Weston Solutions, Inc. to investigate the gas migration and sample the landfill gas and ground water.

U.S. EPA is meeting weekly on Monday's at 2:00 PM to inform and update all agencies involved. Due to the Holidays, the next meeting will be held January 7, 2008. Cone penetrometer investigation and installations will continue through December 19th after which CP investigations will resume after the Holidays.

Corrective Action

BFI has been conducting Emergency Corrective Action at the Mallard Lake Facility installing six replacement and one new gas extraction wells in the landfill; however, these wells have not been connected to the extraction system. Also BFI and STS installed one water and vapor extraction well (GX-1) on the southside of the landfill along Schick Road. BFI's November 2007 Mallard Lake Landfill gas monitoring probe readings are available for review(See Landfill Gas Monitoring Data)

Planned Removal Actions

U.S. EPA along with state and local representatives will hold a public meeting on Thursday, January 17, 2008 at Horizon Elementary School at 1701 Greenbrook Boulevard, Hanover Park, Illinois to discuss the Administrative Settlement with the Mallard Lake Landfill site (See Mallard Lake AOC Advertisement). The meeting will address the landfill gas investigation with local residents.

BFI public relations consultants Reputation Partners along with STS continue to distribute literature (door hangers) regarding residential screening and gas meter installation to local residents residing in the investigation area.

In addition, a U.S. EPA fact sheet was mailed to all local residents in the investigation area briefing them on the purpose of the methane gas investigation, description of the investigation areas, residential screening and gas meter installation and other efforts conducted by BFI and U.S. EPA to mitigate the migration risk.

U.S. EPA entered into an Administrative Order of Consent (AOC) with BFI and the DuPage Forest District regarding methane gas investigation. The AOC requires BFI and the DuPage Forest District to complete the emergency assessment and investigation work to determine the extent of the methane gas leakage from the landfill, and to complete long-term measures to control the off-site migration of landfill gases.

Next Steps

(Note the following tasks will continue after the Holiday break)

- STS, WESTON and U.S. EPA will continue screening homes and installing explosive gas meters based on appointments scheduled by Reputation Partners public relations.
- BFI and STS will continue methane gas migration investigation using the CPT rig and conducting weekly methane gas monitoring of existing and newly installed probes.
- Conduct soil gas sampling at designated shallow gas probe locations.
- Install and sample shallow soil gas near residential homes (based on access).
- Install and sample sub-slab sampling ports (based on access).
- BFI and their consultants, STS, will prepare a plan to improve and expand the methane recovery system and to address methane that has migrated off the property.

Key Issues

- Obtaining access to private homes to install shallow soil gas probes and sub-slab ports has been problematic

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