United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Thursday, December 6, 2007
From: Steven Faryan

Subject: Mallard Lake Landfill Previous POLREPS are found on the Wayne Township Web Site
Mallard Lake Landfill
26W580 Schick Road, Hanover Park, IL
Latitude: 41.9525000
Longitude: -88.1442000

POLREP No.:	1	**Site #:**	B5MH
Reporting Period:	12/4/07-12/06/07	**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.

Current Activities

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. The contractor for BFI began installation of shallow monitoring wells on November 31, 2007. To date, 7 shallow well locations were installed and temporary wells were set. One temporary well CP-5S indicated high levels of methane 2.2% at 24 feet and 16.7% methane at 30 feet. (CP-5 is in the northeast corner of Discovery Park, about 50 feet west of the Landfill fence.) The snow has delayed installation of the shallow wells.

On December 6, BFI contractors are mobilizing a Cone Penetrometer rig to complete the investigation as to extent of the methane migration and install additional shallow wells. This investigation will install temporary wells in 28 locations which will be screened for methane and if needed VOC's will be samples.This work will be completed in 2-3 weeks depending on the weather and holidays.

The first round of analytical results from the temporary wells showed only some low level detections (low part per billion) of vinyl chloride in one temporary well CPT-2 which is 50 feet from some residences and screened at a 40 foot depth.

U.S. EPA continues to screen residential homes for the potential presence of explosive gases on a voluntary basis. BFI has hired a contractor Reputation Partners to schedule screenings and installation of explosive gas meters. To date 169 homes have been visited and 58 homeowners have allowed their homes to be screened, and thus far no explosive gases have been detected in any homes. In addition, upon obtaining approval of residents, U.S. EPA and landfill contractors have installed explosive gas detectors in 38 homes bordering the landfill. These detectors are similar in size and operation to a smoke detector, and can detect the presence of methane, propane and other explosive gases. The detectors

sound an audible alarm when the gases reach a concentration that is 25 % of the minimum necessary to cause an explosion. All residents are given written and verbal instructions on what to do if the alarm sounds. BFI is preparing a contingency plan with emergency call out numbers if an alarm or high level of methane is detected.

Planned Removal Actions

On December 4, 2007, U.S. EPA entered into an Administrative Order on Consent with BFI and the Forest District regarding this problem. The AOC requires BFI and the 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 longer-term measures to control the off-site migration of landfill gases. In addition, work plans will be submitted by BFI to investigate the gas migration and sample the lanfill gas and ground water. Screening of homes and installation of explosive gas meters will be conducted. Installation of shallow soil gas probes and sub-slab port will be conducted in homes where access is given.

U.S. EPA's fact sheet will go out to the public on December 6 or 7 briefing residents on the home screening and meter installation. In addition, a call in number is give to the BFI contractor to arrange scheduling of the screening and meter installation.

U.S. EPA is meeting weekly on Monday's at 2:00 PM to inform and update all agencies involved

Next Steps

Continue Screening Homes and installing meters
Continue Investigation and Sampling (CPT Rig is mobilizing today and will work through the weekends to complete some 28 locations)
Install and sample shallow soil gas at designated 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 contracto 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 commercial property on Schick Rd has delayed investigation in this area.
Obtaining access to private homes to install shallow soil gas probes and sub-slab ports has been problematic. USEPA's fact sheet may bring some residents to allow this sampling.

response.epa.gov/mallardlake