United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Friday, August 8, 2008
From: James Augustyn

Subject: Initiation of PRP contractor work under the AOC
Countywide Landfill
3619 Gracemont Street SE, East Sparta, OH
Latitude: 40.6717000
Longitude: -81.4314000

POLREP No.:	1	**Site #:**	B5FC
Reporting Period:	07/08/2008 - 08/08/2008	**D.O. #:**	
Start Date:	7/8/2008	**Response Authority:**	CERCLA
Mob Date:	7/8/2008	**Response Type:**	Time-Critical
Demob Date:		**NPL Status:**	Non NPL
Completion Date:		**Incident Category:**	Removal Action
CERCLIS ID #:	OHD000510155	**Contract #**	
RCRIS ID #:			

Site Description

The Countywide Landfill Site is located at 3619 Gracemont Street SE, East Sparta, Stark County, Ohio, 44626.

Countywide is a solid waste municipal landfill owned and operated by Republic Services of Ohio II, LLC (Republic). The landfill is regulated under Subtitle D of the Resource Conservation Recovery Act. The facility is permitted and licensed by the Ohio Environmental Protection Agency (Ohio EPA). The facility has been in operation since 1991. Republic purchased and has operated the facility from March 1999 to the present.

The landfill was designed and constructed with engineered systems to protect the environment, including a composite liner system, leachate collection system, and landfill gas collection and control system (GCCS).

Countywide estimates that it accepted, as one of its waste streams, approximately 600,000 tons of aluminum process waste between 1993 and 2006. The majority of this material is described as “dross” or “salt cake.” It is a by-product of the melting of aluminum with a salt flux.

Aluminum waste reacts with water-based liquids to form ammonia, hydrogen, and acetylene gasses. In addition, excessive heat is generated due to the chemical reaction.

In July 2001, Republic became aware of elevated temperatures in landfill gas wells located in several cells at the facility.

Beginning in 2004, the City of Canton Health Department received approximately 30 citizen odor complaints associated with the facility. In November 2004, Republic began the installation of landfill gas collection and control systems (GCCS) in the western part of the landfill to assist in the elimination of potential odors.

In June 2005, Republic completed construction and started operating a comprehensive GCCS. From June 2005, through the middle of December 2005, only four odor complaints were received by the Canton Health Department.

In December 2005, Republic identified landfill gas (LFG) wells with higher than expected temperatures while increased odors were being attributed to the landfill. From January through August 2006, the Canton Health Department received over 660 odor complaints.

Early in 2006, Countywide observed an unusual increase in well temperatures, leachate outbreaks, accelerated settlement, and an increase in odors. Republic initiated numerous activities to reduce odor generation from the landfill. Actions included, but were not limited to, discontinued leachate recirculation, installation of 38 additional wells, upgrading and repairing various components to its gas collection system,

increasing temperature and well monitoring, and installing additional gas flares.

A large area of the landfill experienced substantial and rapid settlement of up to twenty feet in areas and has moved horizontally a minimum of six feet. Republic constructed an approximately 30-acre temporary flexible membrane liner (FML) cap over the impacted area. Republic also discovered changes in the landfill gas composition, including a decrease in methane, an increase in carbon monoxide, and an increase in hydrogen concentrations.

In light of the odors attributed to the landfill, the Ohio EPA issued numerous Director's Final Findings and Orders (DFF&Os) to address the odor problems associated with the landfill. In a letter dated February 5, 2008, the Director of the Ohio EPA requested U.S. EPA's assistance to address the subsurface fire issues at the site.

In April 2008, Republic voluntarily entered into an Administrative Settlement Agreement and Order on Consent (AOC) with U.S. EPA for the installation of enhanced vapor extraction and temperature monitoring systems near the Fire Break, and the development and installation of a long-term capping plan for landfill Cells 1-6. Work plans were submitted by Republic contractors and approved by U.S. EPA prior to the initiation of work under the AOC on July 8, 2008. POLREP #1 provides a brief summary of the work activities initiated by Republic contractors under orders of the U.S. EPA AOC.

Current Activities

On July 8, 2008, U.S. EPA and START personnel mobilized to the site to begin oversight and documentation of work to be performed by Republic contractors under the AOC. A kickoff meeting was led by Republic contractors on the morning of July 8, 2008, to discuss the work to be performed, worker health and safety, and the anticipated schedule for the work under the AOC. The long-term capping work is anticipated to last until the end of October, 2008.

Republic contractors completed the installation of one extraction well (PW-358) and one leachate monitoring well (PW-359) on July 8, 2008. These wells are part of the enhanced active gas extraction system in paragraph 15(a) of the AOC.

On July 17, 2008, Republic contractors mobilized a rotosonic drill rig to the site to begin the installation of the FBMP subsurface temperature monitoring points in landfill as required in paragraph 15(b) of the AOC. Between July 17, 2008, and July 30, 2008, the rotosonic drill crew completed the installation of fourteen new thermocouple probes in Cells 4B, 5A, 5B, and 5D at the proposed locations FBMP-01R, FBMP-02R, FBMP-03R, FBMP-04R, FBMP-05R, FBMP-06, FBMP-07, FBMP-08, FBMP-09, FBMP-10, FBMP-11, FBMP-12, FBMP-13, and FBMP-14. The drill crew also began work at FBMP-18 on July 30, 2008, but a broken spindle on the rig postponed additional progress on the FBMP installations until the week of August 4, 2008.

The removal of ground cover in Area D (7 acres of Cells 1 and 4a) was begun on Friday, July 25, 2008. This marked the initiation of work for the long-term capping plan submitted to U.S. EPA by Republic contractors. During the week of July 28, 2008, Republic contractors continued to remove ground cover and installed the sub-cap landfill gas and leachate collection pipes in Area D. Installation of the toe drain at the north end of Area D also begun during this week.

On Friday, August 1, 2008, Republic contractors began the removal of ground cover in Area N (21 acres of Cells 4B, 5A, 5B, 5C and 7). Trenching for the installation of sub-cap landfill gas and leachate collection pipes in Area N was begun on August 2, 2008. The installation of FML was begun on the northern plateau of Area N on August 5, 2008.

On August 4, 2008, Republic contractors elected to add an additional FBMP installation location to the original 18 monitoring points in the revised Gas Extraction and Monitoring Work Plan. The new temperature monitoring point, designated FBMP-19, was installed on August 7, 2008, east of FBMP-08. The determination to install this additional monitoring point was made by Republic contractors due to higher-than-expected initial subsurface temperature measurements at FBMP-08, ranging up to 260 degrees Fahrenheit.

As of August 8, 2008, Republic contractors have installed 5,120 linear feet of sub-cap landfill gas and leachate collectors and removed 15 acres of ground cover in Areas D and N. Additionally, Republic contractors have installed 3 acres of FML on the northern plateau of Area N to-date. All 18 of the FBMP monitoring points proposed in the work plan have been installed, and Republic contractors elected to install an additional monitoring point designated FBMP-19.

Next Steps

Republic contractors will continue the installation of sub-cap landfill gas and leachate collection systems in Areas N and D, in preparation for the installation of a flexible membrane liner (FML).

Key Issues

On the afternoon of July 23, 2008, a minor leachate outbreak was discovered by Republic contractors at FBMP-07 in Cell 4B. Drilling at FBMP-07 had been completed on the evening of July 22, 2008, but the thermocouple installation and final grouting were not completed until the following day when it was discovered that a small quantity of leachate had reached the surface through the thermocouple conduit. Republic contactors used bentonite clay to absorb the liquid and promptly grouted the conduit at the top of FBMP-07. To help prevent similar outbreaks from the FBMP installations, Republic contractors were expected to completely grout the thermocouple conduit as soon as possible once the drilling and thermocouple installation had been completed. Under this methodology, no further leachate outbreaks developed as a result of the rotosonic drilling at the FBMP installation locations.