

Rumpke Landfill Update Hamilton County

Background

The Rumpke Sanitary Landfill (Rumpke) is a municipal solid waste facility that accepts construction/demolition debris, industrial and residual wastes. This Rumpke facility is more than 500 acres, with more than 330 acres permitted for waste disposal. It is located at 10795 Hughes Road, Colerain Township.

In fall 2009, Rumpke reported elevated temperatures and poor gas quality in several gas extraction wells. Rumpke immediately contacted and began working on a response plan with Hamilton County Department of Environmental Services (now known as the Southwest Ohio Air Quality Agency), Hamilton County Public Health (HCPH), Colerain Township Fire, Ohio EPA and U.S. EPA. Excessive settlement on the surface of the northeast corner of the landfill (referred to as the "affected area") was reported in late 2009.

Experts from local, state and federal agencies are working with Rumpke to implement an action plan designed to monitor and control the abnormal conditions in the affected area. This action plan was approved March 18, 2010. Before this, response actions were taken to minimize the impact of the situation on the local community. Response actions included odor control measures and installation of a buttress to stabilize and prevent potential slope movement.

Odor Control

In an effort to control increased odors, Rumpke installed a covering called an Odor Control Blanket, which is designed to trap and contain odors over the affected area at the north end of the landfill in June 2010. Rumpke added two more acres of blanket in September 2010 and these efforts reduced odors in the area surrounding the landfill.

As this situation continued to mature, Rumpke installed an additional 10 acres of blanket in September 2011; however, weather conditions seemed to increase the incidents of offensive off-site odors.

The most recent installation has controlled odors from the area it covers; however, odors are now emanating from other portions of the affected area. The odors are more intense and are traveling further into the community. The Southwest Ohio Air Quality Agency continues to document off-site odors; therefore, Rumpke has begun work to prepare the area for the installation of another 30 acres of blanket.

Rumpke is also installing surface trenches which, when fully operational, should help reduce odors. Surface trenches sit just below the ground and work with gas wells to capture gases from the underground reaction that rise to the surface. The gas travels through pipes routed to the utility flare where the gas is destroyed.



Odor control blanket being deployed at a landfill to control odors.

In addition, Rumpke previously:

- placed additional clay soil on the affected area to seal it off and prevent odors;
- installed additional gas and leachate collection and control structures;
- increased application of odor-masking spray; and
- enhanced landfill gas, temperature and pressure monitoring throughout the affected area.

Rumpke Landfill Update

Air Monitoring

The Southwest Ohio Air Quality Agency, U.S. EPA and Ohio EPA have done extensive air monitoring at Rumpke and in surrounding neighborhoods using portable instruments, canisters, fixed monitoring stations and a rapid assessment tool.

The agencies are measuring hydrogen sulfide, volatile organic compounds, carbon monoxide and methane. To date, there have been no exceedances of regulatory or health-based levels for any of the targeted air pollutants.

Ohio EPA air toxicologists analyzed the air monitoring data, including a sample taken during the shutdown of the utility flare on March 4-5, 2010. Based on the data collected so far, they concluded that there are no immediate health threats. Regardless, additional sampling will be conducted regularly to assess the potential for long-term health impacts to the community.

Action Plan/Orders

On March 18, 2010, Ohio EPA and Rumpke reached a settlement to address issues at the site related to the reaction/fire. The settlement requires Rumpke to follow an action plan developed in cooperation with local, state and federal agencies.

The objectives of the action plan include:

- ensure the health and safety of both workers and the public;
- control offensive odors;
- maintain the structural integrity of the landfill;
- closely monitor the affected area of the landfill;
- prevent the spread of the subsurface fire and return the area to normal conditions as quickly as possible;
- prepare for any emergency situations that may arise; and
- ensure compliance with permits, authorizing actions and other regulatory obligations.

Rumpke must immediately comply with the action plan and any revisions Ohio EPA makes to the plan. If the objectives of the action plan are not met, the facility may be required to implement other measures to prevent a nuisance or an adverse impact to public health or safety or the environment.

Rumpke paid a \$98,000 civil penalty to resolve air pollution violations which stem from elevated temperatures in landfill gas extraction wells. Of the total penalty, \$19,600 was paid to Ohio EPA's Clean Diesel School Bus Program Fund; the remaining \$78,400 was split equally between air pollution control programs and the Ohio Environmental Education Fund.

For Additional Information

Ohio EPA

www.epa.ohio.gov/pic/rumpkehamco.aspx

U.S. EPA

www.epaosc.net/rumpkelandfill

Contact Information

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To report an odor complaint, contact the Southwest Ohio Air Quality Agency, 24 hours a day, at (513) 946-7777.