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## Rumpke Landfill – Hamilton County

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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 in size, with more than 330 acres permitted for waste disposal. It is located at 10795 Hughes Road, Colerain Township.

Rumpke is permitted to receive up to 10,000 tons of waste per day and operates 24 hours a day. The landfill was designed and constructed with best available technology, which includes a clay and synthetic liner system, leachate collection system and landfill gas collection and control system. The gas collection system consists of approximately 200 landfill gas wells which are routinely monitored for temperature and gas quality.

GSF Energy, LLC has continuously operated a landfill gas (LFG) processing facility at Rumpke since the mid 1980's. The first plant began operation in 1986, a second plant was added in 1995 and a third plant came on-line in 2007. The three plants have the capacity to process approximately 15 million cubic feet of landfill gas which is put directly into the local utility pipeline for consumer use.

### Situation

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

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 on March 18, 2010. Prior to this date, response actions were taken to minimize the impact of the situation on the local community. Response actions included: installation of a buttress to stabilize and prevent potential slope movement and odor control measures.

### Odors

Odor complaints have been on the rise since the fall of 2009 and early 2010. On March 4 and 5, 2010, a utility flare used to combust landfill gases was not operational due to liquid being drawn into the system. While the utility flare was down, numerous odor complaints were logged with HCDOES.

***If you would like to report an odor complaint, you may contact HCDOES, 24 hours a day, at (513) 946-7777 or toll free at (800) 889-0474.***

To help prevent and control odors, Rumpke has taken the following measures to date:

- 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.

It is likely that a temporary plastic cover may be placed atop the affected area to better contain odors soon. To improve its effectiveness, gas collection trenches will be installed beneath this cover. This work may generate temporary odors during construction.

### Air Monitoring

HCDOES, U.S. EPA and Ohio EPA are conducting air monitoring onsite at Rumpke and in surrounding neighborhoods using portable instruments, canisters, fixed monitoring stations and a rapid assessment tool.

Air quality parameters being monitored include 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

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Ohio EPA air toxicologists have analyzed the air monitoring data, including several samples taken over a 24-hour period in the community. One of those samples was taken during the shutdown of the utility flare on March 4-5. Based on the data collected so far, they have concluded that there are no immediate short-term health threats. Regardless, additional 24-hour sampling events 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. 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:

- ensuring the health and safety of both workers and the public;
- controlling offensive odors;
- maintaining the structural integrity of the landfill;
- closely monitoring the affected area;
- preventing the spread of the subsurface fire and returning the area to normal conditions as quickly as possible;
- preparing for any emergency situations which may arise; and,
- ensuring compliance with permits, authorizing actions and other regulatory obligations.

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

Rumpke will pay 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 will be paid to Ohio EPA's Clean Diesel School Bus Program Fund; the remaining \$78,400 will be split equally to administer air pollution control programs and to fund the Ohio Environmental Education Fund.

## **Contact Information**

For additional information, please contact:

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Ohio EPA

[www.epa.ohio.gov/portals/27/enforcement/year\\_2010/RumpkeSanitaryLandfill\\_031810.pdf](http://www.epa.ohio.gov/portals/27/enforcement/year_2010/RumpkeSanitaryLandfill_031810.pdf)

U.S. EPA

[www.epaossc.net/rumpkelandfill](http://www.epaossc.net/rumpkelandfill)

Hamilton County Department of Environmental Services  
<http://www.hcdoes.org/>