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Janet Stanek, Secretary

Laura Kelly, Governor

February 4, 2025

Re: Requirement to prepare a gas monitoring plan. The City of Galena construction and demolition landfill, permit 738. Cherokee County

Kansas Department of Health and Environment (KDHE) staff visited the above referenced facility on January 29<sup>th</sup>, 2025, to investigate odor at the landfill. As part of the investigation, KDHE staff measured ambient air for concentrations of hydrogen sulfide (H<sub>2</sub>S), volatile organic compounds (VOCs), and carbon monoxide (CO) using a MultiRAE tool. KDHE staff made the following observations:

- At the top of the landfill, H<sub>2</sub>S was periodically detected in the ambient air. H<sub>2</sub>S concentrations ranged from 0 to 4.3 ppm.
- At the top of the landfill, VOCs were periodically detected in the ambient air. VOC concentrations ranged from 0 to 2 ppm. It must be noted that an idling truck was present in the area at the time of observation.
- At a point off-site and downwind, neither H<sub>2</sub>S nor VOCs were detected by the MultiRAE tool, but slight odors were observed. The range capability of the MultiRAE tool is 0 to 100 ppm for H<sub>2</sub>S, and 0 to 1,000 ppm for VOCs.
- No CO was detected in ambient air during the investigation. The range capability of the MultiRAE tool is 0 to 500 ppm for CO.

**The owner or operator of the above referenced facility must hire a consultant to prepare a plan to monitor landfill gas concentrations in accordance with Kansas Administrative Regulations (K.A.R.) 28-29-333(b) and submit the plan to KDHE for review and approval by March 10, 2025.** A copy of the regulation is attached. The plan must anticipate monitoring at times when odor is present, describe the documentation of monitoring results, and explain the subsequent actions which will be taken by the facility owner or operator if an action level is reached. The regulations describe required subsequent actions in K.A.R. 28-29-333(c).

Landfill gas can pose a risk to human health. The owner and operator must take precautions to ensure the safety of all persons on-site.

If you have questions, contact me by phone at 785-296-5639 or email [heather.merritt@ks.gov](mailto:heather.merritt@ks.gov).

Sincerely,

A handwritten signature in blue ink that reads "Heather Merritt".

Heather Merritt, P.E.  
Solid Waste Permits Section Chief

# Kansas Administrative Regulations

## Agency 28

### Department of Health and Environment

#### Article 29.—Solid Waste Management

**28-29-333. Control of hazardous and explosive gases at C&D landfills; response, assessment monitoring, and corrective action.** The owner or operator of each C&D landfill shall comply with the following:

(a) Identification of potential problem. If the owner or operator observes or is informed of any indication of a release of landfill gas, the owner or operator shall perform the following:

- (1) Immediately assess the potential danger posed to human health and safety;
- (2) immediately take all the steps necessary to ensure protection of human health and safety;
- (3) notify the department of the observation or information within two business days; and
- (4) in consultation with the department, implement appropriate action to assess the concentrations of gas at the landfill.

(b) Action levels. The owner or operator shall comply with the requirements of subsection (c) if gas concentrations exceed any of the following levels:

(1) For methane, either of the following:

- (A) 25% of the LEL (1.25% by volume) in any building on the facility property; or
- (B) 100% of the LEL (5% by volume) at the facility property boundary;

(2) for hydrogen sulfide, either of the following:

- (A) 1 ppm for on-site personnel; or
- (B) 0.1 ppm in the ambient air at the facility boundary, based on a 15-minute time-weighted average measured when the wind speed is less than 15 mph; or

(3) for any gas other than methane or hydrogen sulfide, a level that presents a risk to human health or safety equivalent to the levels listed in paragraphs (1) and (2) of this subsection.

(c) Response and assessment monitoring. If the concentration of any gas exceeds the levels specified in subsection (b), the owner or operator shall perform the following actions:

- (1) If an exceedance is found at the facility boundary, immediately notify the local government's public health, environment, and emergency management offices;
- (2) notify the department within one business day;
- (3) within one week and in consultation with the department, develop a gas monitoring plan;
- (4) upon approval of the secretary, implement the gas monitoring plan; and
- (5) if gas monitoring has continued for one month and the frequency of the exceedances is not decreasing, take long-term corrective action according to the requirements of subsection (d).

(d) Corrective action. If long-term corrective action is required, the owner or operator shall perform the following actions:

- (1) Develop and submit to the department a corrective action plan, including provisions for the installation of an active or passive gas management system. The owner or operator shall submit the plan within 60 calendar days of the date the conditions requiring corrective action were met; and
- (2) upon approval of the secretary, implement the corrective action plan. (Authorized by and implementing K.S.A. 65-3406; effective Dec. 28, 2012.)