

***** DRAFT – NOT FOR FILING *****

3745-520-675 Monitoring to determine whether a gas management system is being properly operated and to detect fire; responses required based on monitoring results.

(A) An owner or operator shall conduct monitoring in accordance with this rule to determine whether a gas management system, if one exists at the facility, is being properly operated and to detect fire.

(B) Equipment and methods.

(1) Temperature shall be determined using monitoring equipment with an accuracy of plus or minus 2.8 degrees Fahrenheit.

(2) Carbon monoxide concentration of gas shall be determined using appropriate laboratory techniques suitable for the constituent concentration expected.

[Comment: Ohio EPA recommends using ASTM D1945-03, ASTM D1946-90, and USEPA methods 3C, 10B, and 25C, as described in rule 3745-500-03 of the Administrative Code.]

(C) Borings. At any time a boring is made into disposed material, an owner or operator shall monitor the temperature of the disposed material and the temperature of the gas within the boring.

(D) Monthly monitoring. An owner or operator shall monitor each gas collection device at least monthly for the following:

(1) Temperature of the gas.

(2) Nitrogen concentration of the gas.

(3) Oxygen concentration of the gas.

(4) Carbon dioxide concentration of the gas.

(5) Hydrogen sulfide concentration of the gas.

(6) Pressure if the gas collection device is a gas well.

(E) Quarterly monitoring. An owner or operator shall monitor the temperature of gas within leachate cleanout access pipes and leachate sump risers at least quarterly.

(F) When monitoring indicates that the temperature of the gas exceeds one hundred thirty degrees Fahrenheit but is below one hundred fifty degrees Fahrenheit, an owner or operator shall do the following:

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- (1) If the location demonstrating the exceedance is a gas collection device, do the following:
- (a) Respond to the exceedance in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code.
 - (b) If correction of the exceedance cannot be achieved not later than fifteen days after the original monitoring event, comply with paragraph (J) of this rule not later than twenty days after the original monitoring event.
- (2) If the location demonstrating the exceedance is not a gas collection device, re-monitor the location of the exceedance to determine the temperature of the gas not later than five days after the original monitoring event. If re-monitoring reveals that the temperature exceeds one hundred thirty degrees Fahrenheit, an owner or operator shall comply with paragraph (J) of this rule not later than five days after the re-monitoring event.
- (G) When monitoring indicates that the temperature of the gas is at or above one hundred fifty degrees Fahrenheit, an owner or operator shall comply with paragraph (J) of this rule not later than five days after the monitoring event and shall respond to the exceedance in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code if the location demonstrating the exceedance is a gas collection device.
- (H) When monitoring indicates positive pressure at a gas well, an owner or operator shall respond to the positive pressure in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code.
- (I) When monitoring of gas in a gas collection device indicates that the nitrogen concentration exceeds twenty per cent by volume or the oxygen concentration exceeds five per cent by volume, an owner or operator shall respond to the exceedance in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code.
- (J) When required by paragraph (F) or (G) of this rule, an owner or operator shall conduct additional gas monitoring to determine the following:
- (1) Temperature of the gas where the temperature is monitored pursuant to paragraphs (C) to (E) of this rule.
 - (2) Temperature of gas within the leachate collection pipes, if the location of the exceedance is a leachate cleanout access pipe or leachate sump riser.
 - (3) Temperature profile of the location of the exceedance, if the original exceedance was at or above one hundred fifty degrees Fahrenheit and if the location of the

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exceedance is a vertical boring or vertical engineered component. A temperature measurement shall be taken at least once every ten feet.

(4) Carbon dioxide concentration.

(5) Nitrogen concentration.

(6) Oxygen concentration.

(7) Hydrogen sulfide concentration.

(8) Carbon monoxide concentration in parts per million by volume and pressure, if the location of the exceedance is a gas well.

(K) Monitoring documentation.

(1) At a minimum, an owner or operator shall record the following information regarding monitoring conducted in accordance with this rule in the log of operations:

(a) The time of the monitoring event and weather conditions at the time of monitoring.

(b) The monitoring location.

(c) The parameters that were monitored.

(d) Monitoring results available on the date of monitoring.

(e) A discussion of each response or corrective action taken.

(2) An owner or operator shall insert the monitoring results available after the date of monitoring into the log of operations for the day of the monitoring event.