

3745-76-11

Monitoring of operations.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see paragraph (C) of rule 3745-76-01 of the Administrative Code titled, "referenced materials."]

Except as provided in paragraph ~~(B)(2)(a)(ii)~~(D)(2) of rule ~~3745-76-07~~3745-76-12 of the Administrative Code,

(A) Each owner or operator seeking to comply with paragraph ~~(B)(2)(b)(i)~~(D) of rule ~~3745-76-07~~3745-76-03 of the Administrative Code for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and do the following:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in paragraph (A)(3) of rule 3745-76-10 of the Administrative Code; ~~and,~~

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as ~~provided in paragraph (A)(5) of rule 3745-76-10 of the Administrative Code; and~~follows:

(a) The nitrogen level shall be determined using USEPA method 3C of appendix A-2 of 40 CFR part 60, unless an alternative test method is established as allowed by paragraph (D)(2) of rule 3745-76-12 of the Administrative Code.

(b) Unless an alternative test method is established as allowed by paragraph (D)(2) of rule 3745-76-12 of the Administrative Code, the oxygen level shall be determined by an oxygen meter using USEPA method 3A of appendix A-2 of 40 CFR part 60, USEPA method 3C of appendix A-2 of 40 CFR part 60, or ASTM D6522-11. Determine the oxygen level by an oxygen meter using USEPA method 3A, USEPA method 3C, or ASTM D6522-11 (if sample location is prior to combustion) except as follows:

(i) The span shall be set between ten and twelve per cent oxygen.

(ii) A data recorder is not required.

(iii) Only two calibration gases are required, a zero and span.

(iv) A calibration error check is not required.

- (v) The allowable sample bias, zero drift, and calibration drift are plus or minus ten per cent.
- (c) A portable gas composition analyzer may be used to monitor the oxygen levels provided the following:
- (i) The analyzer is calibrated.
- (ii) The analyzer meets all quality assurance and quality control requirements for USEPA method 3A or ASTM D6522-11.
- (3) Monitor temperature of the landfill gas on a monthly basis as provided in paragraph (A)(5) of rule 3745-76-10 of the Administrative Code. The temperature measuring device shall be calibrated annually using the procedure in section 10.3 of USEPA method 2 of appendix A-1 of 40 CFR part 60.
- (B) Each owner or operator seeking to comply with paragraph ~~(B)(2)(e)~~(F) of rule ~~3745-76-07~~3745-76-03 of the Administrative Code using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.
- (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one ~~percent~~per cent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than forty four megawatts.
- (2) A device that records flow to the control device ~~or~~and bypass of the control device (if applicable). The owner or operator shall ~~either~~do the following:
- (a) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen minutes; ~~or~~.
- (b) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- (C) Each owner or operator seeking to comply with paragraph ~~(B)(2)(e)~~(F) of rule ~~3745-76-07~~3745-76-03 of the Administrative Code using ~~an open~~a non-enclosed

flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- (1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
 - (2) A device that records flow to the flare or ~~and~~ bypass of the flare (if applicable). The owner or operator shall ~~either~~:
 - (a) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen minutes; ~~or~~.
 - (b) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- (D) Each owner or operator seeking to demonstrate compliance with paragraph ~~(B)(2)(e)(F)~~ (F) of rule ~~3745-76-07~~ 3745-76-03 of the Administrative Code using a device other than ~~an open~~ a non-enclosed flare or an enclosed combustor or a treatment system shall provide information satisfactory to the director as provided in paragraph ~~(B)(2)(a)(ii)(D)(2)~~ (D)(2) of rule ~~3745-76-07~~ 3745-76-12 of the Administrative Code describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The director shall review the information and either approve it, or request that additional information be submitted. The director may specify additional appropriate monitoring procedures.
- (E) Each owner or operator seeking to install a collection system that does not meet the specifications in rule 3745-76-14 of the Administrative Code or seeking to monitor alternative parameters to those required by rule 3745-76-08 to rule 3745-76-11 of the Administrative Code shall provide information satisfactory to the director as provided in ~~paragraph (B)(2)(a)(ii)~~ paragraphs (D)(2) and (D)(3) of rule ~~3745-76-07~~ 3745-76-12 of the Administrative Code and ~~paragraph (B)(2)(a)(iii) of rule 3745-76-07 of the Administrative Code~~ describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The director may specify additional appropriate monitoring procedures.
- (F) Each owner or operator seeking to demonstrate compliance with the five hundred parts per million surface methane operational standard in paragraph ~~(E)(D)~~ (D) of rule

~~3745-76-10~~3745-76-08 of the Administrative Code, shall monitor surface concentrations of methane according to [the procedures provided in paragraph \(C\) of rule 3745-76-10 of the Administrative Code](#) and the instrument specifications and procedures provided in paragraph (D) of rule 3745-76-10 of the Administrative Code. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of five hundred parts per million or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

[\(G\) Each owner or operator seeking to demonstrate compliance with the control system requirements in paragraph \(F\) of rule 3745-76-03 of the Administrative Code using a landfill gas treatment system shall maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in paragraph \(B\)\(5\)\(ii\) of rule 3745-76-13 of the Administrative Code and shall calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system \(if applicable\). The owner or operator shall do the following:](#)

- [\(1\) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every fifteen minutes.](#)
- [\(2\) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.](#)

[\(H\) The monitoring requirements of paragraphs \(B\), \(C\), \(D\), and \(G\) of this rule apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. Each owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.](#)