

3745-76-01

Definitions.

[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 this rule titled, the "Incorporation by Reference](#)~~referenced materials~~[" section at the end of this rule.](#)]

(A) Terms used but not defined in this chapter have the meaning given them in the Clean Air Act and in rule 3745-15-01 of the Administrative Code.

(B) The following definitions ~~shall~~ apply exclusively to this chapter:

(1) "Active collection system" means a gas collection system that uses gas mover equipment.

(2) "Active landfill" means a licensed and permitted landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

(3) "Btu" means British thermal unit.

(4) "Closed area" means a separately lined area of a MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area must be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

~~(4)~~(5) "Closed landfill" means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification in accordance with 40 CFR 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. .

(6) "Closed landfill subcategory" means a closed landfill that has submitted a closure report as specified in paragraph (F) of rule 3745-76-12 of the Administrative Code on or before September 27, 2017.

~~(5)~~(7) "Closure" means that point in time when a landfill becomes a closed landfill.

~~(6)~~(8) "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, ware-houses, and other non-manufacturing activities, excluding residential and industrial wastes.

~~(7)~~(9) "Controlled landfill" means any landfill at which collection and control systems are required under this chapter as a result of the nonmethane organic

compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with paragraph ~~(B)(2)(a)~~ (H)(2) of rule ~~3745-76-07~~3745-76-03 of the Administrative Code.

(10) "Corrective action analysis" means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action is the best alternative, including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

~~(8)~~(11) "Design capacity" means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

(12) "Director" means the director of the Ohio environmental protection agency.

~~(9)~~(13) "Disposal facility" means ~~any~~all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

~~(10)~~(14) "Emission rate cutoff" means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

~~(11)~~(15) "Enclosed combustor" means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

~~(12)~~(16) "Flare" means an open combustor without enclosure or shroud.

~~(13)~~(17) "Gas mover equipment" means the equipment (~~i.e.,~~for example, fan, blower, compressor) used to transport landfill gas through the header system.

(18) "Gust" means the highest instantaneous wind speed that occurs over a three-second running average.

~~(14)~~(19) "Household waste" means any solid waste (including garbage, trash, and

sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning or removal of bushes, shrubs, and trees, weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

~~(15)~~(20) "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under ~~Subtitle~~ subtitle C of the Resource Conservation and Recovery Act (RCRA), 40 CFR ~~Part~~ part 264 and 40 CFR ~~Part~~ part 265. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; non-ferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This definition does not include mining waste or oil and gas waste.

~~(16)~~(21) "Interior well" means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

~~(17)~~(22) "Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under 40 CFR 257.2 .

~~(18)~~(23) "Lateral expansion" means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

(24) "Leachate recirculation" means the practice of taking the leachate collected from the landfill and reapplying the leachate to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

~~(19)~~(25) "Modification" means an increase in the permitted volume design capacity of the landfill by either ~~horizontal~~ lateral or vertical expansion based on its

permitted design capacity as of ~~May 30, 1991~~July 17, 2014. Modification does not occur until the owner or operator commences construction on the ~~horizontal~~lateral or vertical expansion.

~~(20)~~ "Municipal solid waste" is a type of solid waste generated from community, commercial and agricultural operations, including but not limited to the following:

~~(a) Solid waste generated by community operations (including single and multiple household residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, and day-use recreation areas);~~

~~(b) Solid waste generated by commercial operations (including stores, offices, restaurants, warehouses, and other non-manufacturing activities);~~

~~(c) Solid waste generated from agricultural operations (including single family and commercial farms, greenhouses, and nurseries);~~

~~(d) Sludge from municipal, commercial, or industrial waste water treatment plants, water treatment plants, and air pollution control facilities that is co-disposed with other municipal solid waste in a sanitary landfill facility; and~~

~~(e) Fly ash and bottom ash generated from the incineration of municipal solid waste, provided the fly ash and bottom ash is not regulated as a hazardous waste.~~

~~(21)~~(26) "Municipal solid waste landfill" or "MSW landfill" means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

~~(22)~~(27) "Municipal solid waste landfill emissions" or "MSW landfill emissions" means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

~~(23)~~(28) "NMOC" means nonmethane organic compounds, as measured according to the provisions of rule 3745-76-09 of the Administrative Code.

~~(24)~~(29) "Nondegradable waste" means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

~~(25)~~(30) "Passive collection system" means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

~~(26)~~(31) "PSD" means prevention of significant deterioration, as defined in 40 CFR 52.21, prevention of significant deterioration of air quality.

(32) "Root cause analysis" means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

~~(27)~~(33) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal , commercial, or industrial waste-water treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

~~(28)~~(34) "Solid waste" means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, included solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under the national pollutant discharge elimination system or source, special nuclear, or by-product material as defined by the United States nuclear regulatory commission.

(35) "State" means the state of Ohio.

(36) "State plan" means a plan submitted pursuant to section 111(d) of the Clean Air Act and 40 CFR part 60, subpart B that implements and enforces this chapter.

~~(29)~~(37) "Sufficient density" means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this chapter.

~~(30)~~(38) "Sufficient extraction rate" means a rate sufficient to maintain a negative

pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

(39) "Treated landfill gas" means landfill gas processed in a treatment system.

(40) "Treatment system" means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

(41) "Untreated landfill gas" means any landfill gas that is not treated landfill gas.

~~(31)~~(C) ~~Incorporation by reference~~Referenced materials. This chapter includes references to certain subject matter or materials. The text of the ~~incorporated~~ referenced materials is not included in the ~~regulations~~rules contained in this chapter. ~~The materials are hereby made a part of the regulations in this chapter.~~ Information on the availability of the referenced materials as well as the date of and the particular edition or version of the material is included in this rule. For materials subject to change, only the specific version specified in ~~the regulation~~this rule are ~~incorporated~~referenced. Material is ~~incorporated~~referenced as it exists on the effective date of this rule. Except for subsequent annual publication of existing (unmodified) Code of Federal Regulation compilations, any amendment or revision to a referenced document is not ~~incorporated~~referenced unless and until this rule has been amended to specify the new dates.

~~(a)~~(1) Availability. The referenced materials ~~incorporated by reference~~ are available as follows:

~~(i)~~(a) Clean Air Act. Information and copies may be obtained by writing to: "Superintendent of Documents, Attn: New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954." The full text of the Act as amended in 1990 is also available in electronic format at www.epa.gov/oar/caa/. A copy of the Act is also available for inspection and copying use at most public libraries and "The State Library of Ohio."

~~(ii)~~(b) Code of Federal Regulations (CFR). Information and copies may be obtained by writing to: "Superintendent of Documents, Attn: New Orders, PO Box 371954, Pittsburgh, PA 15250-7954." The full text of the CFR is also available in electronic format at <http://www.gpoaccess.gov/cfr/retrieve.html>. The CFR compilations are also available for inspection and copying use at most public libraries and "The State Library of Ohio."

~~(iii)~~(c) Compilation of Air Pollutant Emission Factors, AP-42. Information and copies may be obtained by writing to: "Superintendent of

Documents, Attn: New Orders, PO Box 371954, Pittsburgh, PA 15250-7954." The full text of the compilation of air pollutant emission factors, AP-42, is also available in electronic format at <http://www.epa.gov/ttn/chief/ap42/>. The compilation of air pollutant emission factors, AP-42, are also available for inspection and [copying use](#) at most public libraries and "The State Library of Ohio."

~~(b)~~(2) ~~Incorporated~~[Referenced](#) materials:

- (a) [40 CFR part 60.4, "Address;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (b) [40 CFR part 60.7, "Notification and record keeping;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (c) [40 CFR part 60.8, "Performance tests;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (d) [40 CFR part 60, subpart Cc, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (e) [40 CFR part 60, subpart Cf, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (f) [40 CFR part 60, subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (g) [40 CFR part 60, subpart XXX, "Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (h) [40 CFR part 62, subpart GGG, "Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (i) [40 CFR part 258, "Criteria for Municipal Solid Waste Landfills;" as published in the July 1, 2019 Code of Federal Regulations.](#)
- (j) [40 CFR part 258.40, "Design Criteria for Municipal Solid Waste Landfills;" as published in the July 1, 2019 Code of Federal Regulations.](#)

- (k) 40 CFR part 258.60, "Closure criteria;" as published in the July 1, 2019 Code of Federal Regulations.
- (l) 40 CFR part 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities;" as published in the July 1, 2019 Code of Federal Regulations.
- (m) 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities;" as published in the July 1, 2019 Code of Federal Regulations.
- ~~(i) ASTM D1946-90; "Standard Practice for Analysis of Reformed Gas by Gas Chromatography;" 2000.~~
- ~~(ii) ASTM D4809-00; "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method);" 2005.~~
- ~~(iii)~~(n) USEPA Methodmethod 2; "Determination of stack gas velocity and volumetric flow rate (type 'S' pitot tube);" 40 CFR Partpart 60, Appendixappendix A-1, as published in the July 1, 20052019 Code of Federal Regulations.
- ~~(iv)~~(o) USEPA Methodmethod 2A; "Direct measurement of gas volume through pipes and small ducts;" 40 CFR. Partpart 60, Appendixappendix A-1, as published in the July 1, 20052019 Code of Federal Regulations.
- ~~(v)~~(p) USEPA Methodmethod 2C; "Determination of gas velocity and volumetric flow rate in small stacks or ducts (standard pitot tube);" 40 PartCFR part 60, Appendixappendix A-1, as published in the July 1, 20052019 Code of Federal Regulations.
- ~~(vi)~~(q) USEPA Methodmethod 2D; "Measurement of gas volume flow rates in small pipes and ducts;" 40 CFR. Partpart 60, Appendixappendix A-1, as published in the July 1, 20052019 Code of Federal Regulations.
- ~~(vii)~~(r) USEPA Methodmethod 2E; "Determination of landfill gas production flow rate;" 40 CF. PartCFR part 60, Appendixappendix A-1, as published in the July 1, 20052019 Code of Federal Regulations.
- (s) US EPA method 3; "Gas Analysis for the Determination of Dry Molecular Weight;" 40 CFR part 60, appendix A-2, as published in the July 1, 2019 Code of Federal Regulations.

- ~~(viii)~~(t) ~~USEPA Method~~method 3A; "Determination of oxygen and carbon dioxide concentrations in emissions from stationary sources (instrumental analyzer procedure);" ~~40CFR. Part~~40 CFR part 60, ~~Appendix~~appendix A-2, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- ~~(ix)~~(u) ~~USEPA Method~~method 3C; "Determination of carbon dioxide, methane, nitrogen, and oxygen from stationary sources;" ~~40CFR. Part~~40 CFR part 60, ~~Appendix~~appendix A-2, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- ~~(x)~~(v) ~~USEPA Method~~method 18; "Measurement of gaseous organic compound emissions by gas chromatography;" ~~40CFR. Part~~40 CFR part 60, ~~Appendix~~appendix A-6, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- ~~(xi)~~(w) ~~USEPA Method~~method 21; "Determination of volatile organic compound leaks;" ~~40CFR. Part~~40 CFR part 60, ~~Appendix~~appendix A-7, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- (x) USEPA method 22; "Visual determination of fugitive emissions from material sources and smoke emissions from flares;" 40 CFR part 60, appendix A-7, as published in the July 1, 2019 Code of Federal Regulations.
- ~~(xii)~~(y) ~~USEPA Method~~method 25; "Determination of total gaseous nonmethane organic emissions as carbon;" ~~40CFR. Part~~40 CFR part 60, ~~Appendix~~appendix A-7, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- ~~(xiii)~~(z) ~~USEPA Method~~method 25A; "Determination of total gaseous organic concentration using a flame ionization analyzer;" ~~40CFR. Part~~40 CFR part 60, ~~Appendix~~appendix A-7, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- ~~(xiv)~~(aa) ~~USEPA Method~~method 25C; "Determination of nonmethane organic compounds (NMOC) in MSW landfill gases;" ~~40 CFR. Part~~CFR part 60, ~~Appendix~~appendix A-7, as published in the July 1, ~~2005~~2019 Code of Federal Regulations.
- ~~(xv)~~ ~~40 CFR Part 60, Subpart Cc, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills;" 61 FR 9919, March 12,~~

~~1996, as amended at 63 FR 32750, June 16, 1998.~~

- ~~(xvi) 40 CFR Part 60, Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills;" 61 FR 9919, March 12, 1996, as amended at 63 FR 32753, June 16, 1998; 64 FR 9262, February 24, 1999; 65 FR 18909, April 10, 2000.~~
- ~~(xvii) 40 CFR Part 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities;" as published in the July 1, 2005 Code of Federal Regulations.~~
- ~~(xviii) 40 CFR Part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities;" as published in the July 1, 2005 Code of Federal Regulations.~~
- ~~(xix) 40 CFR Part 258, "Criteria for Municipal Solid Waste Landfills;" 56 FR 51016, October 9, 1991, as amended at 58 FR 51546, October 1, 1993; 60 FR 52342, October 6, 1995; 61 FR 50413, September 25, 1996.~~
- ~~(xx) 40 FR 258.40 "Design Criteria for Municipal Solid Waste Landfills;" as published in the July 1, 2005 Code of Federal Regulations.~~