



## Ohio Administrative Code

### Rule 3745-256-83 General - air emission standards for tanks, surface impoundments, and containers.

Effective: June 12, 2023

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(A) This rule applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to rules 3745-256-80 to 3745-256-90 of the Administrative Code.

(B) The owner or operator shall control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in rules 3745-256-85 to 3745-256-88 of the Administrative Code, as applicable to the hazardous waste management unit, except as provided for in paragraph (C) of this rule.

(C) A tank, surface impoundment, or container is exempt from standards specified in rules 3745-256-85 to 3745-256-88 of the Administrative Code, as applicable, provided that the waste management unit is one of the following:

(1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average volatile organics (VO) concentration at the point of waste origination of less than five hundred parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in paragraph (A) of rule 3745-256-84 of the Administrative Code. The owner or operator shall review and update, as necessary, this determination at least once every twelve months after the date of the initial determination for the hazardous waste streams entering the unit.

(2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

(a) A process that removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit ( $C_t$ ) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall



be determined using the procedures specified in paragraph (B) of rule 3745-256-84 of the Administrative Code.

(b) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than ninety-five per cent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than one hundred parts per million by weight (ppmw). The R for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in paragraph (B) of rule 3745-256-84 of the Administrative Code.

(c) A process that removes or destroys the organics contained in the hazardous waste to a level such that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The RMR and the MR for the process shall be determined using the procedures specified in paragraph (B) of rule 3745-256-84 of the Administrative Code.

(d) A biological process that destroys or degrades the organics contained in the hazardous waste, such that either of the following conditions is met:

(i) The organic reduction efficiency (R) for the process is equal to or greater than ninety-five per cent, and the organic biodegradation efficiency ( $R_{\text{bio}}$ ) for the process is equal to or greater than ninety-five per cent. The R and the organic biodegradation efficiency for the process shall be determined using the procedures specified in paragraph (B) of rule 3745-256-84 of the Administrative Code.

(ii) The total actual organic mass biodegradation rate ( $MR_{\text{bio}}$ ) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The RMR and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in paragraph (B) of rule 3745-256-84 of the Administrative Code.

(e) A process that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:



- (i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is managed continuously in waste management units which use air emission controls in accordance with the standards specified in rules 3745-256-85 to 3745-256-88 of the Administrative Code, as applicable to the waste management unit.
- (ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere. Ohio EPA considers a drain system that meets the requirements of 40 CFR Part 63 subpart RR "National Emission Standards for Individual Drain Systems" to be a closed system.
- (iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual waste streams entering the process or five-hundred ppmw, whichever value is lower. The average VO concentration of each individual waste stream at the point of waste origination shall be determined using the procedures specified in paragraph (A) of rule 3745-256-84 of the Administrative Code. The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in paragraph (B) of rule 3745-256-84 of the Administrative Code.
- (f) A process that removes or destroys the organics contained in the hazardous waste to a level such that the R for the process is equal to or greater than ninety-five per cent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than ten thousand ppmw. The R for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in paragraphs (B) and (A) of rule 3745-256-84 of the Administrative Code, respectively.
- (g) A hazardous waste incinerator for which the owner or operator has either:
- (i) Been issued a final permit under rules 3745-50-40 to 3745-50-235 of the Administrative Code which implement the requirements of rules 3745-68-40 to 3745-68-52 of the Administrative Code;
- or



(ii) Has designed and operates the incinerator in accordance with the interim standards requirements of rules 3745-68-40 to 3745-68-52 of the Administrative Code.

(h) A boiler or industrial furnace for which the owner or operator has either:

(i) Been issued a final permit under rules 3745-50-40 to 3745-50-235 of the Administrative Code which implement the requirements of rules 3745-266-100 to 3745-266-112 of the Administrative Code; or

(ii) Has designed and operates the boiler or industrial furnace in accordance with the interim standards requirements of rules 3745-266-100 to 3745-266-112 of the Administrative Code.

(i) To determine the performance of an organic destruction or removal process in accordance with the conditions in each of paragraphs (C)(2)(a) to (C)(2)(f) of this rule, the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

(i) If method 25D in 40 CFR Part 60 appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of method 25D in 40 CFR Part 60 appendix A, or a value of twenty-five ppmw, whichever is less.

(ii) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/ mole-fraction-in-the-liquid-phase (0.1 Y/X) [which also can be expressed as  $1.8 \times 10^{-6}$  atmospheres/gram-mole/m<sup>3</sup>] at twenty-five degrees Celsius.

(3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of paragraph (C)(2)(d) of this rule.

(4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit either:



- (a) Meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in rule 3745-270-40 of the Administrative Code; or
- (b) The organic hazardous constituents in the waste have been treated by the treatment technology established by Ohio EPA for the waste in paragraph (A) of rule 3745-270-42 of the Administrative Code, or have been removed or destroyed by an equivalent method of treatment approved pursuant to paragraph (B) of rule 3745-270-42 of the Administrative Code.
- (5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
- (a) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR Part 61 subpart FF- "National Emission Standards for Benzene Waste Operations" for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than ten megagrams per year;
- (b) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
- (c) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T- Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741 appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 of "Procedure T- Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.
- (D) The director may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempted from using air emission controls under this rule as follows:
- (1) The waste determination for average VO concentration of a hazardous waste at the point of waste



origination shall be performed using direct measurement in accordance with the applicable requirements of paragraph (A) of rule 3745-256-84 of the Administrative Code. The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of paragraph (B) of rule 3745-256-84 of the Administrative Code.

(2) In performing a waste determination pursuant to paragraph (D)(1) of this rule, the sample preparation and analysis shall be conducted as follows:

(a) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in paragraph (D)(2)(b) of this rule.

(b) If the director determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the director may choose an appropriate method.

(3) In a case when the owner or operator is requested to perform the waste determination, the director may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.

(4) In a case when the results of the waste determination performed or requested by the director do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of paragraph (D)(1) of this rule shall be used to establish compliance with the requirements of rules 3745-256-80 to 3745-256-90 of the Administrative Code.

(5) In a case when the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the director may elect to establish compliance with rules 3745-256-80 to 3745-256-90 of the Administrative Code by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period as follows:

(a) The average VO concentration of the hazardous waste at the point of waste origination shall be



determined by direct measurement in accordance with the requirements of paragraph (A) of rule 3745-256-84 of the Administrative Code.

(b) Results of the waste determination performed or requested by the director showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than five hundred ppmw shall constitute noncompliance with rules 3745-256-80 to 3745-256-90 of the Administrative Code except in a case as provided for in paragraph (D)(5)(c) of this rule.

(c) For the case when the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than five hundred ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than five hundred ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of paragraph (A) of rule 3745-256-84 and rule 3745-256-90 of the Administrative Code shall be considered by the director together with the results of the waste determination performed or requested by the director in establishing compliance with rules 3745-256-80 to 3745-256-90 of the Administrative Code.

[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 rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]