



## Ohio Administrative Code

### Rule 3745-50-62 Trial burn.

Effective: September 29, 2021

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When an owner or operator of a hazardous waste incineration unit becomes subject to hazardous waste permit requirements after February 16, 2009 or when an owner or operator of a hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63 subpart EEE [i.e., by conducting a comprehensive performance test and submitting a notification of compliance under 40 CFR 63.1207(j) and 40 CFR 63.1210(d) documenting compliance with all applicable requirements of 40 CFR Part 63 subpart EEE], this rule does not apply, except those provisions the director determines are necessary to ensure compliance with paragraphs (A) and (C) of rule 3745-57-45 of the Administrative Code if the owner or operator elects to comply with paragraph (A)(1)(a) of rule 3745-50-235 of the Administrative Code to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the director may apply the provisions of this rule, on a case-by-case basis, to collect information in accordance with paragraphs (A)(5), (D)(6), (H), and (I) of rule 3745-50-40 of the Administrative Code and paragraphs (D)(3)(b) and (D)(4)(a)(v) of rule 3745-50-51 of the Administrative Code.

(A) To determine operational readiness after completion of physical construction, the permit for a new hazardous waste incinerator shall contain conditions including but not limited to allowable waste feeds and operating conditions. These permit conditions will be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed seven hundred twenty hours operating time for treatment of hazardous waste. This operational period may be extended once, for up to seven hundred twenty additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to rule 3745-50-51 of the Administrative Code.

(1) Applicants shall submit a statement, with "Part B" of the permit application, which suggests the conditions necessary to operate in compliance with rule 3745-57-43 of the Administrative Code during this period. At a minimum, this statement should include restrictions on waste constituents, waste feed rates, and the operating parameters identified in rule 3745-57-45 of the Administrative Code.



(2) The director will review this statement and any other relevant information submitted with "Part B" of the permit application. The permit shall specify requirements for this period sufficient to comply with rule 3745-57-43 of the Administrative Code.

(B) To determine the feasibility of compliance with rule 3745-57-43 of the Administrative Code and adequate operating conditions under rule 3745-57-45 of the Administrative Code, the permit for a new hazardous waste incinerator shall contain conditions to be effective during the trial burn.

(1) Applicants shall propose a trial burn plan, prepared under paragraph (B)(2) of this rule with "Part B" of the permit application.

(2) The trial burn plan shall include all of the following:

(a) An analysis of each waste or mixture of wastes to be burned which includes:

(i) Heat value of the waste in the form and composition in which the waste will be burned.

(ii) Viscosity (if applicable), or description of the physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in the appendix to rule 3745-51-11 of the Administrative Code, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in the appendix to rule 3745-51-11 of the Administrative Code which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified, and the basis for the exclusion stated. The waste analysis shall rely on appropriate analytical techniques.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(b) A detailed engineering description of the incinerator for which the permit is sought, including:

(i) Manufacturer's name and model number of incinerator (if available).



- (ii) Type of incinerator.
- (iii) Linear dimensions of the incinerator unit including the cross-sectional area of combustion chamber.
- (iv) Description of the auxiliary fuel system (type or feed).
- (v) Capacity of prime mover.
- (vi) Description of automatic waste feed cutoff systems.
- (vii) Stack gas monitoring and pollution cutoff equipment.
- (viii) Nozzle and burner design.
- (ix) Construction materials.
- (x) Location and description of temperature, pressure, and flow indicating and control devices.
- (c) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.
- (d) A detailed test schedule for each waste for which the trial burn is planned, including dates, duration, quantity of waste to be burned, and other factors relevant to the decision under paragraph (B)(5) of this rule.
- (e) A detailed test protocol, including for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.
- (f) A description of, and planned operating conditions for, any emission control equipment which will



be used.

(g) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(h) Such other information as the director reasonably finds necessary to make a preliminary determination whether to approve the trial burn plan in light of the purposes of paragraph (B) of this rule and the criteria in paragraph (B)(5) of this rule.

(3) The director, in reviewing the trial burn plan, will evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of paragraph (B) of this rule.

(4) Based on the waste analysis data in the trial burn plan, the permit will specify as trial principal organic hazardous constituents (POHCs), those constituents for which destruction and removal efficiencies shall be calculated during the trial burn. These trial POHCs will be specified in the permit based upon an estimate of the difficulty of incineration of the constituents identified in the waste analysis, the concentration or mass in the waste feed of the constituents identified in the waste analysis, and, for wastes listed in rules 3745-51-30 to 3745-51-35 of the Administrative Code, the hazardous waste organic constituent or constituents identified in the appendix to rule 3745-51-30 of the Administrative Code as the basis of listing.

(5) The trial burn plan will be approved if the director finds that all of the following:

(a) The trial burn is likely to determine whether rule 3745-57-43 of the Administrative Code can be complied with.

(b) The trial burn itself does not present an imminent hazard to human health or the environment.

(c) The trial burn will help to determine operating requirements to be specified under rule 3745-57-45 of the Administrative Code.

(d) The information sought in paragraphs (B)(5)(a) and (B)(5)(b) of this rule cannot reasonably be



developed through other means.

(6) The director shall send a notice to all persons on the facility mailing list as provided in 40 CFR 124.10 (c)(1)(ix), and to the appropriate units of state and local government as provided in 40 CFR 124.10 (c)(1)(x), announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the director has issued such notice.

(a) This notice shall be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or Ohio EPA.

(b) This notice shall contain all of the following:

(i) The name and telephone number of the applicant's contact person.

(ii) The name and telephone number of the Ohio EPA contact office.

(iii) The location where the approved trial burn plan and any supporting documents can be reviewed and copied.

(iv) An expected time period for commencement and completion of the trial burn.

(7) During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make all of the following determinations:

(a) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(b) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen and hydrogen chloride.

(c) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, to estimate the fate of the trial POHCs.



- (d) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in paragraph (A) of rule 3745-57-43 of the Administrative Code.
  
  - (e) If the hydrogen chloride emission rate exceeds 1.8 kilograms of hydrogen chloride per hour (four pounds per hour), a computation of hydrogen chloride removal efficiency in accordance with paragraph (B) of rule 3745-57-43 of the Administrative Code.
  
  - (f) A computation of particulate emissions, in accordance with paragraph (C) of rule 3745-57-43 of the Administrative Code.
  
  - (g) An identification of sources of fugitive emissions and their means of control.
  
  - (h) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.
  
  - (i) A continuous measurement of carbon monoxide in the exhaust gas.
  
  - (j) Such other information as the director may specify as necessary to ensure that the trial burn will determine compliance with rule 3745-57-43 of the Administrative Code and to establish the operating conditions required by rule 3745-57-45 of the Administrative Code as necessary to comply with rule 3745-57-43 of the Administrative Code.
- (8) The applicant shall submit to the director a certification that the trial burn was carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in paragraph (B)(7) of this rule. These submittals shall be made within ninety days after completion of the trial burn, or later if approved by the director.
- (9) All data collection during any trial burn shall be submitted to the director following the completion of the trial burn.
- (10) All submittals required by paragraph (B) of this rule shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under rule 3745-50-42 of the Administrative Code.



(11) Based on the results of the trial burn, the operating requirements shall be set in the final permit according to rule 3745-57-45 of the Administrative Code.

(C) To allow operation of a new hazardous waste incinerator after completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the permit may contain conditions, including but not limited to allowable waste feeds and operating conditions sufficient to comply with rule 3745-57-45 of the Administrative Code, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to complete sample analysis, data computation and submittal of the trial burn results by the applicant, and modification of the facility permit.

(1) Applicants shall submit a statement with "Part B" of the permit application, which identifies the conditions necessary to operate in compliance with rule 3745-57-43 of the Administrative Code during this period. At a minimum, this statement should include restrictions on waste constituents, waste feed rates, and the operating parameters in rule 3745-57-45 of the Administrative Code.

(2) The director will review this statement and any other relevant information submitted with "Part B" of the permit application and recommend those requirements for this period most likely to comply with rule 3745-57-43 of the Administrative Code based on engineering judgment.

(D) To determine the feasibility of compliance with rule 3745-57-43 of the Administrative Code and adequate operating conditions under rule 3745-57-45 of the Administrative Code, the applicant for a permit for an existing hazardous waste incinerator shall prepare and submit a trial burn plan and perform a trial burn in accordance with paragraph (C)(7)(b) of rule 3745-50-44 of the Administrative Code and paragraphs (B)(2) to (B)(5) and (B)(7) to (B)(10) of this rule or, instead, submit other information as specified in paragraph (C)(7)(c) of rule 3745-50-44 of the Administrative Code. The director shall announce the director's intention to approve the trial burn plan in accordance with the timing and distribution requirements of paragraph (B)(6) of this rule. The contents of the notice shall include the name and telephone number of a contact person at the facility, the name and telephone number of a contact office at Ohio EPA, the location where the trial burn plan and any supporting documents can be reviewed and copied, and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for Ohio EPA approval of the plan and the time period during which the trial burn would be conducted.



Applicants submitting information under paragraph (C)(7)(a) of rule 3745-50-44 are exempt from compliance with rules 3745-57-43 and 3745-57-45 of the Administrative Code, and therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submittal of a permit application shall complete the trial burn and submit the results, specified in paragraph (B)(7) of this rule, with "Part B" of the permit application. If completion of this process conflicts with the date set for submittal of the "Part B" application, the applicant shall contact the director to establish a later date for submittal of the "Part B" application or the trial burn results. Trial burn results shall be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with "Part B" of the permit application, the director will specify a time period prior to permit issuance in which the trial burn shall be conducted and the results submitted.

[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."]