

3745-57-43

Performance standards- incinerators.

An incinerator burning hazardous waste ~~must~~shall be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under rule 3745-57-45 of the Administrative Code, ~~it will meet~~the incinerator meets the following performance standards:

(A)

- (1) Except as provided in paragraph (A)(2) of this rule, an incinerator burning hazardous waste ~~must~~shall achieve a destruction and removal efficiency (DRE) of 99.99 per cent for each principal organic hazardous constituent (POHC) designated (under rule 3745-57-42 of the Administrative Code) in ~~its~~the incinerator's permit for each waste feed. DRE is determined for each POHC from the following equation:

$$\text{DRE} = (W_{\text{in}} - W_{\text{out}}) / W_{\text{in}} \times 100\%$$

Where:

W_{in} = Mass feed rate of one ~~principal organic hazardous constituent (POHC)~~ in the waste stream feeding the incinerator, and

W_{out} = Mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

- (2) An incinerator burning hazardous waste F020, F021, F022, F023, F026, or F027 ~~must~~shall achieve a destruction and removal efficiency (DRE) of 99.9999 per cent for each ~~principal organic hazardous constituent (POHC)~~ designated (under rule 3745-57-42 of the Administrative Code) in ~~its~~the incinerator's permit. This performance ~~must~~shall be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in paragraph (A)(1) of this rule.
- (B) An incinerator burning hazardous waste and producing stack emission of more than 1.8 kilograms per hour (four pounds per hour) of hydrogen chloride (HCl) ~~must~~shall control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or one per cent of the HCl in the stack gas prior to ~~entering~~the stack gas' entry into any pollution control equipment.
- (C) An incinerator burning hazardous waste ~~must~~shall not emit particulate matter exceeding one hundred eighty milligrams per dry standard cubic meter (0.08 grains per dry

standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$P_c = M_c \times [14 / (21 - Y)]$$

Where:

P_c = the corrected concentration of particulate matter,

M_c = the measured concentration of particulate matter, and

Y = the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in 40 CFR Part 60, "Appendix A" (method 3).

This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the director will select an appropriate correction procedure.

- (D) For purposes of permit enforcement, compliance with the operating requirements specified in the permit (under rule 3745-57-45 of the Administrative Code) ~~will be~~ is regarded as compliance with this rule. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of this rule may be "information" justifying modification or revocation of the permit under rule 3745-50-51 or 3745-50-53 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."]

Effective: 9/29/2021

Five Year Review (FYR) Dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

09/14/2021

Date

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