

3745-68-01 Applicability- landfills.

- (A) Rules 3745-68-01 to 3745-68-16 of the Administrative Code apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as rule 3745-65-01 of the Administrative Code provides otherwise.
- (B) A waste pile used as a disposal facility is a landfill and is governed by rules 3745-68-01 to 3745-68-16 of the Administrative Code.

Effective: 12/07/2004

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981, 01/07/1983

3745-68-02 Action leakage rate.

- (A) The owner or operator of landfill units subject to paragraph (A) of rule 3745-68-05 of the Administrative Code must submit a proposed action leakage rate to the director when submitting the notice required under paragraph (B) of rule 3745-68-05 of the Administrative Code. Within sixty days of receipt of the notification, the director will:
- (1) Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this rule; or
 - (2) Extend the review period for up to thirty days.
 - (3) If no action is taken by the director before the original sixty or extended ninety day review periods, the action leakage rate will be approved as proposed by the owner or operator.
- (B) The director will approve an action leakage rate for surface impoundment units subject to paragraph (A) of rule 3745-68-05 of the Administrative Code. The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).
- (C) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under rule 3745-68-04 of the Administrative Code to an average daily flow rate (gallons per acre per day) for each sump. Unless the director approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period, and monthly during the post-closure care period when monthly monitoring is required under paragraph (B) of rule 3745-68-04 of the Administrative Code.

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3745-68-03

Response actions- landfills.

- (A) The owner or operator of landfill units subject to paragraph (A) of rule 3745-68-05 of the Administrative Code shall ~~submit a response action plan to the director when submitting the proposed action leakage rate under rule 3745-68-02 of the Administrative Code~~ develop a response action plan and keep the response action plan on-site until closure of the facility. The response action plan shall describe the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in paragraph (B) of this rule.
- (B) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall ~~do all of the following:~~
- (1) Notify the director in writing of the exceedance within seven days after the determination;~~;~~
 - (2) Submit a preliminary written assessment to the director within fourteen days after the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;~~;~~
 - (3) Determine to the extent practicable the location, size, and cause of any leak;~~;~~
 - (4) Determine whether waste receipt should cease or should be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;~~;~~
 - (5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks;~~;~~ and
 - (6) Within thirty days after the notification that the action leakage rate has been exceeded, submit to the director the results of the analyses specified in paragraphs (B)(3), (B)(4), and (B)(5) of this rule, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the director a report summarizing the results of any remedial actions taken and actions planned.
- (C) To make the leak or remediation determinations in paragraphs (B)(3), (B)(4), and (B)(5) of this rule, the owner or operator shall ~~do either of the following:~~
- (1) ~~Conduct the following assessments and analyses:~~
 - (a) Assess the source of liquids and amounts of liquids by source; and

(b) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid: and

(c) Assess the seriousness of any leaks in terms of potential for escaping into the environment: or

(2) Document why such assessments are not needed.

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Five Year Review (FYR) Dates: 7/20/2022 and Exempt

CERTIFIED ELECTRONICALLY

Certification

10/11/2022

Date

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Rule Amplifies: 3734.12
Prior Effective Dates: 12/07/2004, 09/05/2010, 03/24/2017

3745-68-04 Monitoring and inspection.

- (A) An owner or operator required to have a leak detection system under paragraph (A) of rule 3745-68-05 of the Administrative Code must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.
- (B) After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.
- (C) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submittal and approval of the proposed "pump operating level" will be in accordance with paragraph (A) of rule 3745-68-02 of the Administrative Code.

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Rule amplifies: 3734.12
Prior effective dates: None

3745-68-05

Design and operating requirements.

~~(A) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992 must install two or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with paragraph (D), (E), or (F) of this rule. "Construction commences" is as defined in rule 3745-50-10 of the Administrative Code under "existing facility".~~

(A) The owner or operator of each new landfill unit, each lateral expansion of a landfill unit, and each replacement of an existing landfill unit must install two or more liners and a leachate collection and removal system above and between the liners, and operate the leachate collection and removal systems in accordance with paragraph (C) of rule 3745-57-03 of the Administrative Code, unless exempted under paragraph (D), (E), or (F) of rule 3745-57-03 of the Administrative Code.

(B) The owner or operator of each unit referred to in paragraph (A) of this rule must notify the director at least sixty days prior to receiving waste. The owner or operator of each facility submitting notice must file a "Part B" application within six months ~~of~~after the receipt of such notice.

(C) The owner or operator of any replacement landfill unit is exempt from paragraph (A) of this rule if:

(1) The existing unit was constructed in compliance with the design standards of ~~sections~~Sections 3004(o)(1)(A)(i) and 3004(o)(5) of RCRA; and

(2) There is no reason to believe that the liner is not functioning as designed.

(D) The double liner requirement in paragraph (A) of this rule may be waived by the director for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such ~~waste does~~wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in rule 3745-51-24 of the Administrative Code, with EPA hazardous waste numbers D004 to D017; and

(2)

(a)

- (i) The monofill has at least one liner for which there is no evidence that such liner is leaking;
 - (ii) The monofill is located more than one-quarter mile from an "underground source of drinking water" (as that term is defined in rule ~~3745-34-01~~3745-50-10 of the Administrative Code); and
 - (iii) The monofill is in compliance with generally applicable ground water monitoring requirements for facilities with permits under ~~section~~Section 3005(c) of RCRA; or
 - (b) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.
- (E) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of paragraph (A) of this rule and in good faith compliance with paragraph (A) of this rule and with guidance documents governing liners and leachate collection systems under paragraph (A) of this rule, no liner or leachate collection system which is different from that which was so installed pursuant to paragraph (A) of this rule will be required for such unit by the director when issuing the first permit to such facility, except that the director will not be precluded from requiring installation of a new liner when the director has reason to believe that any liner installed pursuant to the requirements of paragraph (A) of this rule is leaking.
- (F) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a twenty-five-year storm.
- (G) The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.
- (H) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.
- (I) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

~~[Comment: As required by rule 3745-65-13 of the Administrative Code, the waste analysis plan must include analyses needed to comply with rules 3745-68-12, 3745-68-13, and 3745-68-14 of the Administrative Code. As required by rule 3745-65-73 of the Administrative Code, the owner or operator must place the results of these analyses in the operating record of the facility.]~~

~~[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."]~~

[Comment 1: As required by rule 3745-65-13 of the Administrative Code, the waste analysis plan must include analyses needed to comply with rules 3745-68-12, 3745-68-13, and 3745-68-14 of the Administrative Code. As required by rule 3745-65-73 of the Administrative Code, the owner or operator must place the results of these analyses in the operating record of the facility.]

[Comment 2: 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: 09/05/2010

R.C. 119.032 review dates: Exempt

CERTIFIED ELECTRONICALLY

Certification

07/23/2010

Date

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Prior Effective Dates: 12/30/1989, 02/11/1992, 02/14/1995, 12/07/2004

3745-68-09 Surveying and recordkeeping.

The owner or operator of a landfill shall maintain the following items in the operating record required in rule 3745-65-73 of the Administrative Code:

- (A) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and
- (B) The contents of each cell and the approximate location of each hazardous waste type within each cell.

Effective: 01/07/1983

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981

3745-68-10

Closure and post-closure.

- (A) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:
- (1) Provide long-term minimization of migration of liquids through the closed landfill;
 - (2) Function with minimum maintenance;
 - (3) Promote drainage and minimize erosion or abrasion of the cover;
 - (4) Accommodate settling and subsidence so that the cover's integrity is maintained; and
 - (5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.
- (B) After final closure, the owner or operator must comply with all post-closure requirements contained in rules 3745-66-17 to 3745-66-20 of the Administrative Code, including maintenance and monitoring, throughout the post-closure care period. The owner or operator must:
- (1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;
 - (2) Maintain and monitor the leak detection system in accordance with paragraphs (C)(3)(d) and (C)(4) of rule 3745-68-05 and paragraph (B) of rule 3745-68-04 of the Administrative Code, and comply with all other applicable leak detection system requirements of Chapters 3745-65 to 3745-69 and 3745-256 of the Administrative Code;
 - (3) Maintain and monitor the ground water monitoring system and comply with all other applicable requirements of rules 3745-65-90 to 3745-65-94 of the Administrative Code;
 - (4) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and
 - (5) Protect and maintain surveyed benchmarks used in complying with rule 3745-68-09 of the Administrative Code.

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03/13/2002, 12/07/2004

3745-68-12 Special requirements for ignitable or reactive waste.

- (A) Except as provided in rule 3745-68-16 of the Administrative Code, and in paragraph (B) of this rule, ignitable or reactive waste shall not be placed in a landfill, unless the waste and landfill meet all applicable requirements of Chapter 3745-270 of the Administrative Code, and:
- (1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under rule 3745-51-21 or 3745-51-23 of the Administrative Code; and
 - (2) Paragraph (B) of rule 3745-65-17 of the Administrative Code is complied with.
- (B) Except for prohibited wastes which remain subject to treatment standards in rules 3745-270-40 to 3745-270-49 of the Administrative Code, ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (A) of this rule provided that the wastes are disposed in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes shall be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture or any other condition that might cause ignition of the wastes; shall be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and shall not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

Effective: 12/07/2000

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981, 01/07/1983, 05/29/1985 (Emer.), 08/29/1985, 02/11/1992

3745-68-13

Special requirements for incompatible wastes- landfills.

Incompatible wastes, or incompatible wastes and materials (see the ~~Appendix~~appendix to rule 3745-66-99 of the Administrative Code for examples), shall not be placed in the same landfill cell, unless paragraph (B) of rule 3745-65-17 of the Administrative Code is complied with.

Effective: 2/12/2018

Five Year Review (FYR) Dates: Exempt

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01/10/2018

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3745-68-14

Special requirements for bulk and containerized liquids.

- (A) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.
- (B) Containers holding free liquids must not be placed in a landfill, unless:
- (1) All free-standing liquid:
 - (a) Has been removed by decanting, or other methods; or
 - (b) Has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or
 - (c) Has been otherwise eliminated; or
 - (2) The container is very small, such as an ampule; or
 - (3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or
 - (4) The container is a lab pack as defined in rule 3745-68-16 of the Administrative Code and is disposed of in accordance with rule 3745-68-16 of the Administrative Code.
- (C) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: method ~~9095 (paint filter liquids test)~~ 9095B ("Paint Filter Liquids Test") as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA publication SW-846.
- (D) The date for compliance with paragraph (B) of this rule is March 22, 1982.
- (E) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in paragraph (E)(1) of this rule; materials that pass one of the test in paragraph (E)(2) of this rule; or materials that are determined by U.S.EPA to be nonbiodegradable through the petition process in 40 CFR Part 260.
- (1) Nonbiodegradable sorbents.
 - (a) Inorganic minerals, other inorganic materials, and elemental carbon [e.g.,

aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina lime silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon]; or

(b) High molecular weight synthetic polymers [e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers]. This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(c) Mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents.

(a) The sorbent material is determined to be nonbiodegradable under ASTM method G21-70 (1984A) - standard practice for determining resistance of synthetic polymer materials to fungi; or

(b) The sorbent material is determined to be nonbiodegradable under ASTM method G22-76 (1984B) - standard practice for determining resistance of plastics to bacteria; or

(c) The sorbent material is determined to be nonbiodegradable under organization for economic cooperation and development (OECD) test 301B- CO₂ evolution (modified sturm test).

(F) The placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the director, or the director determines, that:

(1) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any "underground source of drinking water" (as that term is defined in rule ~~3745-34-01~~3745-50-10 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: 02/16/2009

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08/29/1985, 01/30/1986, 12/30/1989, 09/02/1997,
12/07/2004

3745-68-15 Special requirements for containers.

Unless they are very small, such as an ampule, containers shall be either:

- (A) At least ninety per cent full when placed in the landfill; or
- (B) Crushed flat, shredded, or similarly reduced in volume to the maximum practical extent before it is buried beneath the surface of a landfill.

Effective: 01/30/1986

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981, 01/07/1983

3745-68-16

Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

- (A) Hazardous waste ~~shall~~must be packaged in non-leaking inside containers. The inside containers ~~shall~~must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers ~~shall~~must be tightly and securely sealed. The inside containers ~~shall~~must be of the size and type specified in the department of transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178, and 179), if those regulations specify a particular inside container for the waste.
- (B) The inside containers ~~shall~~must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than ~~four hundred sixteen liter~~four hundred sixteen liter (~~one hundred ten~~one hundred ten gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent ~~material~~material, determined to be nonbiodegradable in accordance with paragraph (E) of rule 3745-68-14 of the Administrative Code, to completely sorb all of the liquid contents of the inside containers. The metal outer container ~~shall~~must be full after it has been packed with inside containers and sorbent material.
- (C) The sorbent material used ~~shall~~must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with paragraph (B) of rule 3745-65-17 of the Administrative Code.
- (D) Incompatible wastes, as defined in ~~paragraph (A) of~~ rule 3745-50-10 of the Administrative Code, ~~shall~~must not be placed in the same outside container.
- (E) Reactive waste, other than ~~cyanide- or sulfide-bearing~~cyanide- or sulfide-bearing waste as defined in paragraph (A)(5) of rule 3745-51-23 of the Administrative Code, ~~shall~~must be treated or rendered non-reactive prior to packaging in accordance with paragraphs (A) to (D) of this rule. ~~Cyanide- and~~Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with paragraphs (A) to (D) of this rule without first being treated or rendered non-reactive.
- (F) Such disposal is in compliance with the requirements of Chapter 3745-270 of the Administrative Code. Persons who incinerate lab packs according to the requirements in paragraph (C)(1) of rule 3745-270-42 of the Administrative Code may use fiberboard drums in place of metal outer containers. Such fiberboard drums ~~shall~~must meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements in paragraph (B) of this rule.

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R.C. 119.032 review dates: Exempt

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3745-68-40 **Applicability- incinerators.**

(A) Rules 3745-68-40 to 3745-68-52 of the Administrative Code apply to owners and operators of hazardous waste incinerators (as defined in rule 3745-50-10 of the Administrative Code), except as rule 3745-65-01 of the Administrative Code provides otherwise.

(B) Integration of the MACT ~~Standards~~standards.

(1) Except as provided by ~~paragraph~~paragraphs (B)(2) and (B)(3) of this rule, the standards of Chapters 3745-65 to 3745-69 and 3745-256 of the Administrative Code no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63; subpart EEE, by conducting a comprehensive performance test and submitting to the ~~administrator~~director a notification of compliance (~~NIC~~) under 40 CFR 63.1207(j) and 40 CFR 63.1210(d) documenting compliance with the requirements of 40 CFR Part 63; subpart EEE.

(2) The following requirements continue to apply even where the owner or operator has demonstrated compliance with the MACT requirements of 40 CFR Part 63; subpart EEE:

(a) Rule 3745-68-51 of the Administrative Code;

(b) The applicable requirements of Chapter 3745-65 of the Administrative Code and rules 3745-66-10 to 3745-66-21 and 3745-66-40 to 3745-66-48 of the Administrative Code; and

(c) 40 CFR Part 265; subparts BB and CC.

(3) Rule 3745-57-45 of the Administrative Code generally prohibiting burning of hazardous waste during startup and shutdown remains in effect if you elect to comply with paragraph (B)(1)(a) of rule 3745-50-235 of the Administrative Code to minimize emissions of toxic compounds from startup and shutdown.

(C) Owners and operators of incinerators burning hazardous waste are exempt from all requirements of rules 3745-68-40 to 3745-68-52 of the Administrative Code, except rule 3745-68-51 of the Administrative Code, provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in the appendix to rule 3745-51-11 of the Administrative Code, and such documentation is retained at the facility, if the waste to be burned is:

- (1) Listed as a hazardous waste in rules 3745-51-30 to 3745-51-35 of the Administrative Code solely because it is ignitable ("Hazard Code I"), corrosive ("Hazard Code C"), or both; or
- (2) Listed as a hazardous waste in rules 3745-51-30 to 3745-51-35 of the Administrative Code solely because it is reactive ("Hazard Code R") for characteristics other than those listed in paragraphs (A)(4) and (A)(5) of rule 3745-51-23 of the Administrative Code and will not be burned when other hazardous wastes are present in the combustion zone; or
- (3) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under rules 3745-51-20 to 3745-51-24 of the Administrative Code; or
- (4) A hazardous waste solely because it possesses the reactivity characteristic described by paragraph (A)(1), (A)(2), (A)(3), (A)(6), (A)(7), or (A)(8) of rule 3745-51-23 of the Administrative Code, and will not be burned when other hazardous wastes are present in the combustion zone.

[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."]

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11/29/1983, 01/30/1986, 05/28/1987, 02/11/1992,
02/14/1995, 12/07/2004

3745-68-41 Waste analysis.

In addition to the waste analysis required by rule 3745-65-13 of the Administrative Code, the owner or operator shall sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state (normal) operating conditions, including waste and auxiliary fuel feed and air flow, and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

- (A) Heating value of the waste;
- (B) Halogen content and sulfur content in the waste; and
- (C) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

[Comment: As required by rule 3745-65-73 of the Administrative Code, the owner or operator shall place the results from each waste analysis, or the documented information, in the operating record of the facility.]

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Prior effective dates: 04/15/1981

3745-68-45 General operating requirements.

During start-up and shut-down of an incinerator, the owner or operator must not feed hazardous waste unless the incinerator is at steady state (normal) conditions of operation, including steady state operating temperature and air flow.

Effective: 01/07/1983

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981

3745-68-47 Monitoring and inspections.

The owner or operator shall conduct, at a minimum, the following monitoring and inspections when incinerating hazardous waste:

- (A) Existing instruments which relate to combustion and emission control shall be monitored at least every fifteen minutes. Appropriate corrections to maintain steady state combustion conditions shall be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.
- (B) The complete incinerator and associated equipment, including but not limited to, pumps, valves, conveyors, and pipes, shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

Effective: 11/29/1983

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981, 01/07/1983

3745-68-51 Closure.

At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including but not limited to ash, scrubber waters, and scrubber sludges, from the incinerator.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with paragraph (D) of rule 3745-51-03 of the Administrative Code that the residue removed from his incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage such waste in accordance with all applicable requirements of the hazardous waste rules.]

Effective: 01/07/1983

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981

3745-68-52 Incinerators operating under a "Part A" permit that are burning particular hazardous wastes.

- (A) Owners or operators of incinerators subject to rules 3745-68-40 to 3745-68-52 of the Administrative Code may burn Ohio EPA hazardous wastes F020, F021, F022, F023, F026, or F027 if they receive a certification from the director that they can meet the performance standards of rules 3745-57-40 to 3745-57-51 of the Administrative Code when they burn these wastes.
- (B) The following standards and procedures will be used in determining whether to certify an incinerator:
 - (1) The owner or operator will submit an application to the director containing applicable information in rules 3745-50-44 and 3745-50-62 of the Administrative Code demonstrating that the incinerator can meet the performance standards in rules 3745-57-40 to 3745-57-51 of the Administrative Code when they burn these wastes.
 - (2) The director will issue a tentative decision as to whether the incinerator can meet the performance standards in rules 3745-57-40 to 3745-57-51 of the Administrative Code. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The director will accept comment on the tentative decision for sixty days. The director also may hold a public hearing upon request or at his discretion.
 - (3) After the close of the public comment period, the director shall issue a decision whether or not to certify the incinerator.

Effective: 12/07/2000
119.032 review dates: Exempt
Promulgated under: 119.03
Statutory authority: 3734.12
Rule amplifies: 3734.12
Prior effective dates: 01/30/1986

3745-68-70 Applicability- thermal treatment.

Rules 3745-68-70 to 3745-68-83 of the Administrative Code apply to owners and operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion, except as rule 3745-65-01 of the Administrative Code provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of rules 3745-68-40 to 3745-68-52 of the Administrative Code if the unit is an incinerator, and is subject to the requirements of rules 3745-266-100 to 3745-266-112 of the Administrative Code if the unit is a boiler or industrial furnace as defined in rule 3745-50-10 of the Administrative Code.

Effective: 12/07/2004

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981, 01/07/1983

3745-68-73 General operating requirements.

Before adding hazardous waste, the owner or operator shall bring his thermal treatment process to steady state (normal) conditions of operation- including steady state operating temperature- using auxiliary fuel or other means, unless the process is a non-continuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

Effective: 01/07/1983

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981

3745-68-75 Waste analysis.

In addition to the waste analyses required by rule 3745-65-13 of the Administrative Code, the owner or operator shall sufficiently analyze any waste which he has not previously treated in his thermal treatment process to enable him to establish steady state (normal) or other appropriate (for a non-continuous process) operating conditions, including waste and auxiliary fuel feed, and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

- (A) Heating value of the waste;
- (B) Halogen content and sulfur content in the waste; and
- (C) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

[Comment: As required by rule 3745-65-73 of the Administrative Code, the owner or operator shall place the results from the waste analysis, or the documented information, in the operating report of the facility.]

Effective: 01/07/1983
119.032 review dates: Exempt
Promulgated under: 119.03
Statutory authority: 3734.12
Rule amplifies: 3734.12
Prior effective dates: 04/15/1981

3745-68-77 Monitoring and inspections.

The owner or operator shall conduct, at a minimum, the following monitoring and inspections when thermally treating hazardous waste:

- (A) Existing instruments which relate to temperature and emission control (if an emission control device is present) shall be monitored at least every fifteen minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions shall be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.
- (B) The stack plume (emissions), where present, shall be observed visually at least hourly for normal appearance, color and opacity. The operator shall immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.
- (C) The complete thermal treatment process and associated equipment, including, but not limited to, pumps, valves, conveyors and pipes, shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

Effective: 01/07/1983

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981

3745-68-81 Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with paragraph (C) or (D) of rule 3745-51-03 of the Administrative Code, that any waste removed from the thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage such waste in accordance with all applicable requirements of Chapters 3745-52, 3745-53, 3745-65 to 3745-69, and 3745-256 of the Administrative Code.]

Effective: 12/07/2004

119.032 review dates: Exempt

Promulgated under: 119.03

Statutory authority: 3734.12

Rule amplifies: 3734.12

Prior effective dates: 04/15/1981, 01/07/1983

3745-68-82 Open burning; waste explosives.

Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of treatment "Detonation" is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives shall do so in accordance with the following table and in a manner that does not threaten human health or the environment.

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others
0 - 100	204 meters (670 feet)
101 - 1,000	380 meters (1,250 feet)
1,001 - 10,000	530 meters (1,730 feet)
10,001 - 30,000	690 meters (2,260 feet)

Effective: 01/07/1983
119.032 review dates: Exempt
Promulgated under: 119.03
Statutory authority: 3734.12
Rule amplifies: 3734.12
Prior effective dates: 04/15/1981

3745-68-83 Thermal treatment devices burning particular hazardous waste.

- (A) Owners or operators of thermal treatment devices subject to rules 3745-68-70 to 3745-68-83 of the Administrative Code may burn Ohio EPA hazardous wastes F020, F021, F022, F023, F026, or F027 if they receive a certification from the director that they can meet the performance standards of rules 3745-57-40 to 3745-57-51 of the Administrative Code when they burn these wastes.
- (B) The following standards and procedures will be used on determining whether to certify a thermal treatment unit:
 - (1) The owner or operator shall submit an application to the director containing the applicable information in rules 3745-50-44 and 3745-50-62 of the Administrative Code demonstrating that the thermal treatment unit can meet the performance standards in rules 3745-57-40 to 3745-57-51 of the Administrative Code when they burn these wastes.
 - (2) The director shall issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in rules 3745-57-40 to 3745-57-51 of the Administrative Code. Notification of this tentative decision shall be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The director shall accept comment on the tentative decision for sixty days. The director also may hold a public hearing upon request or at his discretion.
 - (3) After the close of the public comment period, the director shall issue a decision whether or not to certify the thermal treatment unit.

Effective: 10/20/1998
119.032 review dates: Exempt
Promulgated under: 119.03
Statutory authority: 3734.12
Rule amplifies: 3734.12
Prior effective dates: 01/30/1986, 12/30/1989