Chapter 3745-75 Infectious Waste Incinerator Limitations

3745-75-01 Applicability, Definitions, and Reference to Materials.

[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 (D) of this rule titled "Incorporation by reference."]

(A) Except as otherwise provided in paragraph (B) of this rule, the definitions in rule 3745-15-01 of the Administrative Code shall apply to this chapter.

(B) For the purpose of Chapter 3745-75 of the Administrative Code:

(1) "Batch incinerator" means an incinerator which is loaded and undergoes a cycle of combustion, ash burndown, cooling-off and ash removal, prior to being loaded again.

(2) "Biologicals" means preparations made from living organisms and their products, including but not limited to vaccines and cultures intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

(3) "Body fluids" means liquid emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal, and pericardial fluids; and semen and vaginal secretions.

(4) "Bypass stack" means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(5) "Chemotherapeutic waste" means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

(6) "Co-fired combustor" means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, ten per cent of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For the purpose of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

(7) "Continuous duty incinerator" means an incinerator of either a multiple chamber or controlled-air design into which waste can be charged at periodic intervals and from which ash can be removed at periodic intervals, without an ash burndown and cooling-off cycle.

(8) "Continuous temperature recorder" means a device, which uses a temperature sensor (such as a thermocouple), that is part of an instrument which continuously monitors and records the temperature at a specific location in an air pollution source.

(9) "Dioxin" means total tetra- through octachlorinated dibenzo-p-dioxins (PCDDs), as measured by USEPA Method Twenty-three.

(10) “Dry scrubber” means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powdery material.

(11) “Fabric filter” or “baghouse” means an add-on pollution control system that removes particulate matter (PM) and nonvaporous metals emissions by passing flue gas through filter bags.

(12) “Facilities manager” means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner’s or operator’s representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

(13) “Furan” means total tetra- through octachlorinated dibenzofurans (PCDFs), as measured by USEPA Method Twenty-three.

(14) “High-air phase” means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

(15) “Hospital” means any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing primarily to human inpatients who are not related and who stay on average in excess of twenty-four hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continued medical supervision.

(16) “Hospital waste” means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(17) “Hospital waste incinerator” means any device used to provide the combustion of hospital waste.

(18) “Hospital/medical/infectious waste incinerator” or “HMIWI” or “HMIWI unit” means any device that combusts any amount of hospital waste and/or medical/infectious waste.

(19) “Infectious agent” means a type of microorganism, helminth, or virus that causes, or significantly contributes to the cause of, increased morbidity or mortality of human beings.

(20) “Intermittent feed incinerator” means an incinerator of either a multiple chamber or controlled-air design into which waste can be charged at periodic intervals and from which ash is removed after a burndown and cooling-off cycle.

(21) “Large HMIWI” means a continuous duty or intermittent feed HMIWI whose maximum charge rate is more than five hundred pounds per hour, or a batch HMIWI whose maximum charge rate is more than four thousand pounds per day.

(22) “Low-level radioactive waste” means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC 2014(e)(2)).

(23) “Malfunction” means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

(24) “Maximum charge rate” means

(a) For continuous-duty and intermittent-feed incinerators, one hundred ten per cent of the lowest three-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(b) For batch incinerators, one hundred ten per cent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(25) “Maximum fabric filter inlet temperature” means one hundred ten per cent on the absolute scale of the lowest three-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(26) “Maximum flue gas temperature” means one hundred ten per cent on the absolute scale of the lowest three-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury emission limit.

(27) “Medical/infectious wastes” include all of the following substances or categories of substances:

(a) Cultures and stocks of infectious agents and associated biologicals, including, without limitation, specimen cultures, cultures and stocks of infectious agents, wastes from production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures;

(b) Laboratory wastes that were, or are likely to have been, in contact with infectious agents that may present a substantial threat to public health if improperly managed;

(c) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers;

(d) Waste materials from the rooms of humans, or the enclosures of animals, that have been isolated because of diagnosed communicable disease that are likely to transmit infectious agents. Also included are waste materials from the rooms of patients who have been placed on blood and body fluid precautions under the universal precaution system established by the "Centers for Disease Control" in the public health service of the United States Department of Health and Human Services, if specific wastes generated under the universal precautions system have been identified as infectious wastes by rules referred to in paragraph (B)(27)(i) of this rule;

(e) Human blood and blood products, including:
(i) Liquid waste human blood;
(ii) Products of blood;
(iii) Items saturated and/or dripping with human blood; and
(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category. The category does not include patient care waste such as bandages or disposable gowns that are lightly soiled with blood or other body fluids, unless such wastes are soiled to the extent that the generator of the wastes determined that they should be managed as infectious wastes;

(f) Contaminated carcasses, body parts, and bedding of animals that were intentionally exposed to infectious agents from zoonotic or human diseases during research, production of biologicals, or testing of pharmaceutical products, and carcasses and bedding of animals otherwise infected by zoonotic or infectious agents that may present a substantial threat to public health if improperly managed;

(g) Sharp wastes used in the treatment, diagnosis, or inoculation of human beings or animals or that have, or are likely to have, come in contact with infectious agents in medical, research or industrial laboratories, including, but not limited to, hypodermic needles and syringes, scalpel blades, and glass articles whether broken or unbroken;

(h) Unused sharps including unused, discarded hypodermic needles, suture needles, syringes, and scalpel blades;

(i) Any other waste materials generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto or in the production or testing of biological materials, that the public health council created in section 3701.33 of the Revised Code, by rules adopted in accordance with Chapter 119. of the Revised Code, identifies as infectious wastes after determining that the wastes present a substantial threat to human health when improperly managed because they are contaminated with, or are likely to be contaminated with, infectious agents; and

(j) Any other waste materials the generator designates as infectious waste.

(28) "Medical/infectious waste incinerator" means any device used to provide the combustion of medical/infectious waste.

(29) "Medium HMIWI" means a continuous duty or intermittent feed HMIWI whose maximum charge rate is more than two hundred pounds per hour and less than or equal to five hundred

pounds per hour, or a batch HMIWI whose maximum charge rate is more than one thousand six hundred pounds per day and less than or equal to four thousand pounds per day.

(30) “Minimum dioxin/furan sorbent flow rate” means ninety per cent of the highest three-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(31) “Minimum horsepower or amperage” means ninety per cent of the highest three-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

(32) “Minimum hydrogen chloride sorbent flow rate” means ninety per cent of the highest three-hour average hydrogen chloride sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limit.

(33) “Minimum mercury sorbent flow rate” means ninety per cent of the highest three-hour average mercury sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the mercury emission limit.

(34) “Minimum pressure drop across the wet scrubber” means ninety per cent of the highest three-hour average pressure drop across the wet scrubber particulate-matter control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the particulate-matter emission limit.

(35) “Minimum scrubber liquor flow rate” means ninety per cent of the highest three-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(36) “Minimum scrubber liquor pH” means ninety per cent of the highest three-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limit.

(37) “Minimum secondary chamber temperature” means ninety per cent on the absolute scale of the highest three-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the particulate matter, carbon monoxide, and dioxin/furan limits.

(38) “Modification” means any change to an HMIWI such that

(a) The cumulative costs of the modifications, over the life of the unit, exceed fifty per cent of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or

(b) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under Section 129 or Section 111 of the federal Clean Air Act.

(39) “Off-site facility” means a medical/infectious waste incinerator that burns any medical/infectious waste from a generator that is located off-site from the location of the medical/infectious waste incinerator.

(40) “Operating day” means a twenty-four hour period between twelve a.m. and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

(41) “Operator” means the person with immediate responsibility for keeping the incinerator and related equipment within the proper operating range of temperature and emission rate, and assuring that overcharging or loading of prohibited materials does not occur. The term does not include those personnel whose responsibilities consist merely of loading waste into the incinerator, so long as such loading operation is subject to the knowledge and control of a properly qualified operator.

(42) “Pathological waste” means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding if applicable.

(43) “Primary chamber” means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

(44) “Pyrolysis” means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(45) “Retention time” means the average time for gases to pass through a chamber. The retention time of the secondary chamber of an incinerator shall be calculated using the volume of the secondary chamber divided by the actual volumetric flow rate emitted from the secondary chamber at maximum operating temperature and burning rate.

(46) “Secondary chamber” means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

(47) “Shutdown” means the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown shall commence no less than two hours after the last charge to the incinerator. For intermittent HMIWI, shutdown shall commence no less than four hours after the last charge to the incinerator. For batch HMIWI, shutdown shall commence no less than five hours after the high-air phase of combustion has been completed.

(48) “Small HMIWI” means a continuous duty or intermittent feed HMIWI whose maximum charge rate is less than or equal to two hundred pounds per hour, or a batch HMIWI whose maximum charge rate is less than or equal to one thousand six hundred pounds per day.

(49) “Startup” means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

(50) “Wet scrubber” means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

(51) “Zoonotic agent” means a type of microorganism, helminth, or virus that causes disease in vertebrate animals and that is transmissible to human beings and causes or significantly contributes to the cause of increased morbidity or mortality of human beings.

(C) This chapter applies to the owner or operator of any medical/infectious or hospital waste incinerator except the following:

(1) Incinerators that burn infectious wastes generated by individuals for purposes of their own care or treatment that are disposed of with solid waste from the individual’s residence.

(2) Crematories that only combust human remains and coffins.

(3) Veterinary clinics and animal shelters that only burn carcasses and bedding of animals not intentionally exposed to infectious agents during research, production of biological material, or testing of pharmaceutical products, unless the improper disposal of those materials would present a substantial threat to public health.

(4) Incinerators on which construction was commenced after June 20, 1996.

(5) Incinerators on which modification was commenced after March 16, 1998.

(6) Any combustor during periods in which only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste are burned, provided the owner or operator

(a) Notifies the director and the U.S. EPA of an exemption claim; and

(b) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste are burned.

(Note: a combustor exempted under this paragraph is subject to the requirements for pathological waste incinerators under Chapter 3745-105 of the Administrative Code.)

(7) Any co-fired combustor, provided the owner or operator

(a) Notifies the director and the U.S. EPA of an exemption claim;

(b) Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

(c) Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(8) Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act.

(9) Any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb of 40 CFR Part 60 (standards or guidelines for certain municipal waste combustors).

(10) Cement kilns.

(11) Any pyrolysis unit as defined by this rule.

(D) Reference to materials. This chapter includes references to certain matter or materials. The text of the referenced material is not included in the rules contained in this chapter. Information on the availability of the referenced materials as well as the date of, and/or the particular edition or version of the material is included in this rule. For materials subject to change, only the specific versions specified in this rule are referenced. Material is 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 applicable unless and until this rule has been amended to specify the new dates.

(1) Availability. The referenced materials are available as follows:

(a) Code of Federal Regulations. 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 www.access.gpo.gov/nara/cfr. The CFR compilations are also available for inspection and copying at most public libraries and "The State Library of Ohio."

(b) United States Code. 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 U.S.C. is also available in electronic format at www.access.gpo.gov/uscode/index.html. The U.S.C. compilations are also available for inspection and copying at most public libraries and "The State Library of Ohio."

(2) Referenced materials.

(a) 42 U.S.C. Sec. 2014. "Definitions." Aug. 1, 1946, ch. 724. title I. Sec. 11, as added Aug. 30, 1954, ch. 1073. Sec. 1.68 Stat. 922 amended Aug. 6, 1956, ch. 1015. Sec. 1. 70 Stat.1069: Pub. L. 85-256. Sec. 3. Sep. 2, 1957, 71Stat. 576: Pub. L. 85-602. Sec. 1. Aug. 8, 1958, 72 Stat. 525; Pub. L. 87-206. Sec. 2, 3. Sep. 6, 1961, 75 Stat. 476: Pub. L. 87-615, Sec. 4, 5. Aug. 29, 1962, 76 Stat. 410: Pub. L. 89-645, Sec. l(a). Oct, 13, 1966, 80 Stat. 891: Pub. L. 94-197. Sec. 1. Dec. 31, 1975, 89 Stat. 1111: Pub. L. 95-604. title II, Sec. 201. Nov. 8, 1978, 92 Stat. 3033; Pub. L. 100-408, Sec. 4(b)-5(b), ll(b), (d)(2), 16(a)(l), (b)(l), (2), (d)(1)-(3), Aug. 20, 1988, 102 Stat. 1069, 1070, 1076, 1078-1080: Pub. L. 101-575, Sec. 5(a). Nov. 15, 1990, 104 Stat. 2835 renumbered title I and amended Pub. L. 102-486. title IX, Sec. 902(a)(8), title XI. Sec. 1102. Oct. 24, 1992,

106 Stat. 2944, 2955; Pub. L. 103-437. Sec. 15(f)(l). Nov. 2, 1994, 108 Stat. 4592: Pub. L. 104-134. title III. Sec. 3116(b)(l), Apr. 26, 1996, 110 Stat. 1321-349.

(b) 42 U.S.C. Sec. 6925, "Permits for Treatment, storage, or disposal of hazardous waste." Pub. L. 89-272, title II. Sec. 3005. as added Pub. L, 94-580, Sec. 2, Oct. 21, 1976, 90 Stat. 2808: amended Pub. L. 95-609. Sec. 7(h), Nov. 8, 1978, 92 Stat. 3082: Pub. L. 96-482. Secs. 10. 11, Oct. 21, 1980, 94 Stat. 2338: Pub. L. 98-616. title II. Secs. 21 1-213(a), (c), 214(a), 215, 224(b), 243(c), Nov. 8, 1984, 98 Stat. 3240-3243, 3253. 3261: Pub. L. 104-119. Sec. 4(6), (7), Mar. 26, 1996, 110 Stat. 833.

(c) 40 C.F.R., "Subpart 'Cb' -- Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994." December 19, 1995 as amended at 62 FR 45119, 45125, August 25, 1997.

(d) 40 CFR "Subpart 'Ea'" -- "Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994," Feb. 11, 1991 as amended at 60 FR 65384, Dec. 19, 1995.

(e) 40 CFR "Subpart 'Eb'" -- "Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction Is Commenced After June 19, 1996," Dec. 19, 1995 as amended at 62 FR 45120, 45125, Aug. 15, 2000.

(f) 40 CFR "Subpart HHH" -- "Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed on or Before June 20, 1996," 65 FR 49881, Aug. 15, 2000.

(g) 40 CFR Section 60.7: "Notification and record keeping"; 36 FR 24877, Dec. 28, 1971 as amended at 40 FR 46254, Oct. 6, 1795; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994, and 64 FR 7463, Feb. 12, 1999.

(h) 40 CFR Section 62.14470; "When must I comply with this subpart if I plan to continue operation of my HMIWI?"; 65 FR 49881, Aug. 15, 2000.

(i) 40 CFR Section 62.14471; "When must I comply with this subpart if I plan to shut down?"; 65 FR 49881, Aug. 15, 2000.

(j) 40 CFR 60.13; "Monitoring requirements"; 40 FR 46255, Oct. 6, 1975 as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000, and 65 FR 61749, Oct. 17, 2000.

(k) Method 1, "Sample and Velocity Traverses for Stationary Sources"; 40 CFR Part 60, Appendix A-4; as published in the July 1, 2003 Code of Federal Regulations.

(l) Method 3, "Gas Analysis for the Determination of Dry Molecular Weight"; 40 CFR Part 60, Appendix A-4; as published in the July 1, 2003 Code of Federal Regulations.

(m) Method 3A, “Determination of Oxygen and Carbon Dioxide Concentrations in Emissions From Stationary Sources (Instrumental Analyzer Procedure)”; 40 CFR Part 60, Appendix A-4; as published in the July 1, 2003 Code of Federal Regulations.

(n) Method 5, “Determination of Particulate Emissions From Stationary Sources”; 40 CFR Part 60, Appendix A-4, as published in the July 1, 2003 Code of Federal Regulations.

(o) Method 9, “Visual Determination of the Opacity of Emissions from Stationary Sources”; 40 CFR Part 60, Appendix A-4, as published in the July 1, 2003 Code of Federal Regulations.

(p) Method 10, “Determination of Carbon Monoxide Emissions From Stationary Sources”; 40 CFR Part 60, Appendix A-4, as published in the July 1, 2003 Code of Federal Regulations.

(q) Method ‘10B’, “Determination of Carbon Monoxide Emissions From Stationary Sources”; 40 CFR Part 60, Appendix A-4, as published in the July 1, 2003 Code of Federal Regulations.

(r) Method 23, “Determination of Polychlorinated Dibenzo-P-dioxins and Polychlorinated Dibenzofurans From Stationary Sources”; 40 CFR Part 60, Appendix A-4, as published in the July 1, 2003 Code of Federal Regulations.

(s) Method 26, “Determination of Hydrogen Halide and Halogen Emissions From Stationary Sources Non-Isokinetic Method,” 40 CFR Part 60, Appendix A-4, as published in the July 1, 2003 Code of Federal Regulations.

(t) Method 29, “Determination of Metals Emissions From Stationary Sources”; 40 CFR Part 60, Appendix A-4; as published in the July 1, 2003 Code of Federal Regulations.

(u) "Performance Specification 1. Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources:" 40 C.F.R. Part 60, Appendix "B": 48 FR 13327, Mar. 30, 1983 and 48 FR 23611, May 25, 1983, as amended at 48 FR 32986, July 20, 1983; 51 FR 31701, Aug. 5, 1985; 52 FR 17556, May 11, 1987; 52 FR 30675, Aug. 18, 1987; 52 FR 34650, Sep. 14, 1987; 53 FR 7515, Mar. 9, 1988; 53 FR 41335, Oct. 21, 1988; 55 FR 18876, May 7, 1990; 55 FR 40178, Oct. 2, 1990; 55 FR 47474, Nov. 14, 1990; 56 FR 5526, Feb. 11, 1991; 59 FR 64593, Dec. 15, 1994; 64 FR 53032, Sep. 30, 1999; 65 FR 62130, 62144, Oct. 17, 2000; 65 FR 48920, Aug. 10, 2000.

Effective: 03/23/2004

R.C. 119.032 review dates: 03/23/2009

Promulgated Under: 119.03

Statutory Authority: 3704.03(E)

Rule Amplifies: 3704.02

Prior Effective Dates: 7/9/1991

3745-75-02 Emission Limits.

[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 3745-75-01(D) of the Administrative Code titled "Reference to materials."]

(A) Particulate emissions from any small HMIWI shall not exceed one hundred fifteen milligrams per dry standard cubic meter adjusted to seven per cent oxygen in the exhaust stream.

(B) Particulate emissions from any medium HMIWI shall not exceed sixty-nine milligrams per dry standard cubic meter adjusted to seven per cent oxygen in the exhaust stream.

(C) Particulate emissions from any large HMIWI shall not exceed thirty-four milligrams per dry standard cubic meter adjusted to seven per cent oxygen in the exhaust stream.

(D) Hydrogen chloride emissions from any HMIWI shall not exceed one hundred parts per million by volume on a dry basis adjusted to seven per cent oxygen in the exhaust stream unless the emission has been reduced by control equipment having a minimum control efficiency of ninety-three per cent by concentration for hydrogen chloride.

(E) Carbon monoxide emissions from any HMIWI expressed by volume, on a dry basis, adjusted to seven per cent oxygen in the exhaust stream shall not exceed one hundred parts per million as an hourly average, and shall not exceed forty parts per million as a twelve-hour rolling average (not including startup and shutdown) as measured by continuous emission monitors, and shall not exceed forty parts per million as a three-hour rolling average (not including startup and shutdown) as measured by EPA reference Method 10 or 10B of Appendix A of 40 CFR Part 60.

(F) Sulfur dioxide emissions from any HMIWI shall not exceed fifty-five parts per million by volume, on a dry basis, adjusted to seven per cent oxygen in the exhaust stream.

(G) Nitrogen oxides emissions from any HMIWI shall not exceed two hundred fifty parts per million by volume, on a dry basis, adjusted to seven per cent oxygen in the exhaust stream.

(H) Dioxin and furan emissions from any HMIWI expressed on a dry basis adjusted to seven per cent oxygen in the exhaust stream shall be limited to a maximum of either one hundred twenty-five nanograms per standard cubic meter expressed as total mass or 2.3 nanograms per standard cubic meter expressed as toxic equivalent.

(I) Emissions of metals from any HMIWI shall not exceed the following limits, adjusted to seven per cent oxygen in the exhaust stream:

(3) Cadmium and compounds - 0.16 milligrams per dry standard cubic meter

(5) Lead and compounds 1.2 milligrams per dry standard cubic meter

(6) Mercury and compounds 0.55 milligrams per dry standard cubic meter

(J) The allowable concentrations specified by paragraphs (A) to (I) of this rule shall be computed as twelve-hour rolling averages (not including startup and shutdown) for units equipped with

appropriate continuous emission monitors installed and maintained in accordance with the applicable procedures under Appendices B and F of 40 CFR Part 60, or as three-hour rolling averages (not including startup and shutdown) for units not so equipped, except where different averaging periods are specified by those paragraphs.

(K) Visible particulate emissions from any HMIWI shall not exceed five per cent opacity except for six minutes in any continuous sixty minute period during which opacity shall not exceed ten per cent.

(L) Use of a bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the particulate matter, dioxin/furan, hydrogen chloride, lead, cadmium, and mercury emission limits.

(M) For units not equipped with a carbon monoxide monitor, operation of the unit above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the carbon monoxide emission limit.

(N) For units equipped with a dry scrubber followed by a fabric filter, operation of the unit above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(O) For units equipped with a wet scrubber but not a dry scrubber, operation of the unit above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(P) For units equipped with a dry scrubber followed by a fabric filter, operation of the unit above the maximum charge rate and below the minimum mercury sorbent flow rate (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the mercury emission limit.

(Q) For units equipped with a wet scrubber but not a dry scrubber, operation of the unit above the maximum charge rate and above the maximum flue gas temperature (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the mercury emission limit.

(R) For units equipped with a wet scrubber, operation of the unit above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the hydrogen chloride emission limit.

(S) For units equipped with a dry scrubber followed by a fabric filter but not a wet scrubber, operation of the unit above the maximum charge rate and below the minimum hydrogen chloride sorbent flow rate (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the hydrogen chloride emission limit.

(T) For units equipped with a wet scrubber, operation of the unit above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum

horsepower or amperage to the system (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the particulate matter emission limit.

(U) For units not equipped with a wet scrubber, or a dry scrubber followed by a fabric filter, continuous compliance with the allowable concentrations specified by paragraphs (A) to (E), (H), and (I)(6) of this rule shall be established by continuous monitoring of surrogate measures of combustion or control efficiency, except where those emissions are measured by continuous monitors installed and maintained in accordance with volume 40, Part 60 of the Code of Federal Regulations. The owner or operator of the unit shall petition the administrator of the U.S. EPA for approval of site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the administrator.

(V) The owner or operator of an affected facility may conduct a repeat performance test within thirty days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under paragraphs (L) to (U) of this rule.

(W) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The director or the U.S. EPA may request a repeat performance test at any time.

Effective: 03/23/2004

R.C. 119.032 review dates: 03/23/2009

Promulgated Under: 119.03

Statutory Authority: 3704.03(E)

Rule Amplifies: 3704.02

Prior Effective Dates: 7/9/1991

3745-75-03 Design Parameters and Operating Restrictions.

[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 3745-75-01(D) of the Administrative Code titled "Reference to materials."]

(A) All incineration shall occur in a controlled air multi-chamber incinerator, or equivalent technology as approved by the director, which provides complete combustion of waste, excluding metallic items, to carbonized or mineralized ash. Any ash that does not meet the criteria shall be reincinerated.

(B) The secondary combustion chamber of any unit shall operate so that the instantaneous temperature of the gas exiting the chamber is a minimum of ninety per cent on the absolute scale of the highest three-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the particulate matter, carbon monoxide, and dioxin/furan limits, or a minimum temperature of one thousand six hundred degrees Fahrenheit, whichever is greater.

(C) The primary combustion chamber shall be maintained so that the exit gas has a minimum temperature of one thousand four hundred degrees Fahrenheit for continuous-duty units or one thousand two hundred degrees Fahrenheit for batch or intermittent feed units.

(D) The secondary combustion chamber of any HMIWI shall allow for a one-second retention time at the minimum temperature specified in paragraph (B) of this rule except for any unit that has a longer retention time specified in an Ohio EPA permit to install or is constructed after January 1, 1991 which shall have a two-second retention time at the minimum temperature specified in paragraph (B) of this rule.

(E) All medical/infectious waste incinerators with a capacity greater than four hundred pounds per hour shall be equipped with an automatic feeder which is designed and operated so that wastes cannot be charged if the gas exiting the secondary combustion chamber has not reached the minimum temperature specified in paragraph (B) of this rule.

(F) Medical/infectious waste shall not be loaded into the primary combustion chamber of any medical/infectious waste incinerator until the gas exiting the primary chamber has reached the minimum temperature specified in paragraph (C) of this rule.

(G) The stack or stacks from any HMIWI shall be designed to minimize the impact of the emissions on employees, residents, patients, visitors, or nearby residences. The design of any unit shall meet good engineering practices so as not to cause excessive concentrations of any air contaminant at any air intake for heating and cooling of any building, or at operable windows, or doors.

(H) Any mechanically-fed medical/infectious waste incinerator must be equipped with an air lock system to prevent opening the incinerator to the room environment. The volume of the loading systems shall be designed so as to prevent overcharging of the unit to assure complete combustion of waste.

(I) Following the date on which the initial performance test is completed or is required to be completed under paragraph (B)(4) of rule 3745-75-06 of the Administrative Code, a HMIWI may not be operated above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in paragraphs (H) and (I) of rule 3745-75-04 of the Administrative Code and measured as three-hour rolling averages (calculating each hour as the average of the previous three operating hours) at any time except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameters.

(J) All medical/infectious waste incinerators with a capacity greater than four hundred pounds per hour shall be equipped with an air pollution control device designed to reduce hydrogen chloride emissions and provide for continuous compliance with the hydrogen chloride emission limits when the unit is in operation.

(K) All incinerators, including all associated equipment and grounds, shall be designed, operated, and maintained to prevent the emission of objectionable odors.

(L) Medical/infectious waste that is also radioactive shall be managed in accordance with the applicable rules of the Ohio department of health and regulations of the United States Nuclear Regulatory Commission.

[Note: section 3734.027 of the Revised Code prohibits the disposal of low level radioactive waste in an “infectious waste treatment facility” as that term is defined in the Revised Code.]

(M) The owner or operator of any HMIWI shall not intentionally dispose of the following items by burning in the incinerator:

(1) Visible globules of mercury;

(2) Nickel-cadmium batteries;

(3) Switches, thermometers, batteries, and other devices containing mercury; and

(4) Bags or other containers for infectious waste handling which contain cadmium, chromium, or lead as a pigmenting agent.

(N) All HMIWI units are to be operated only by properly trained and qualified personnel. A minimum of twenty-four hours of HMIWI operation training shall be provided to each operator before he/she is allowed to operate an incinerator. This may include, for each operator, the successful completion of the training course in the operation and maintenance of hospital medical waste incinerators developed by the Control Technology Center, U.S. EPA, or courses or instructions provided by incinerator manufacturers, professional engineering organizations, colleges or universities, corporate training programs, or Ohio EPA. A copy of all the training records for each operator shall be immediately available to the Ohio EPA and U.S. EPA personnel upon request.

(O) Training shall be obtained by completing a HMIWI operator training course that includes, at a minimum, the following provisions:

(1) Twenty-four hours of training on the following subjects:

(a) Environmental concerns, including pathogen destruction and types of emissions;

(b) Basic combustion principles, including products of combustion;

(c) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(d) Combustion controls and monitoring;

(e) Operation of air pollution control equipment and factors affecting performance;

(f) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures;

(g) Inspection and maintenance of the HMIWI, air pollution control devices and continuous emission monitoring systems;

(h) Actions to correct malfunctions or conditions that may lead to malfunction;

(i) Bottom and fly ash characteristics and handling procedures;

(j) Applicable federal, state, and local regulations;

(k) Work safety procedures;

(l) Pre-startup inspections; and

(m) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Reference material distributed to the attendees covering the course topics.

(P) Qualification shall be obtained by:

(1) Completion of a training course that satisfies the criteria under paragraph (O) of this rule;

(2) Either six months experience as a HMIWI operator, six months experience as a direct supervisor of a HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators; and

(3) Review of the information contained within the operations manual required by paragraph (T) of this rule.

(Q) Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

(R) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass the following training on an annual basis:

(1) A review or refresher course of at least four hours covering, at a minimum, the following:

(a) Update of regulations;

(b) Incinerator operation, including startup and shutdown procedures;

(c) Inspection and maintenance;

(d) Responses to malfunctions or conditions that may lead to malfunction; and

(e) Discussion of operating problems encountered by attendees.

(2) Review of the information contained within the operations manual required by paragraph (T) of this rule.

(S) A lapsed qualification shall be renewed by one of the following methods:

(1) For a lapse of less than three years, the HMIWI operator shall complete and pass a standard annual refresher course and review of the operations manual described in paragraph (R) of this rule.

(2) For a lapse of three years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph (O) of this rule, and shall review the information contained within the operations manual required by paragraph (T) of this rule.

(T) The owner or operator of an affected facility shall maintain an operations manual available to operators and to the U.S. EPA and the director, which will include the following:

(1) A summary of applicable regulations of the Ohio EPA division of air pollution control and the Ohio EPA division of solid and infectious waste management;

(2) A description of the basic combustion principles applicable to the incinerator;

(3) Procedures for receiving, handling, and charging waste;

(4) Startup, shutdown, and malfunction procedures for the incinerator and associated control equipment;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the incinerator and associated control equipment within the standards prescribed by this rule;

(7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

(8) Procedures for monitoring incinerator emissions;

(9) Reporting and recordkeeping procedures;

(10) Procedures for handling ash; and

(11) A list of the current allowable values of all site-specific operating parameters, with the dates of the most recent performance test(s) and the actual operating conditions that served as a basis for deriving the allowable values.

(U) Every operator qualified to operate the incinerator shall review the information contained within the operations manual required by paragraph (T) of this rule prior to assumption of duties affecting the operation of the incinerator and at least annually thereafter.

(V) All medical/infectious waste incinerators shall be equipped with mechanical feeding arrangements which prevent exposure of personnel to any hazard which may result from charging of feed into a preheated primary chamber.

Effective: 03/23/2004

R.C. 119.032 review dates: 03/23/2009

Promulgated Under: 119.03

Statutory Authority: 3704.03(E)

Rule Amplifies: 3704.02

Prior Effective Dates: 7/9/1991

3745-75-04 Monitoring Requirements.

[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 3745-75-01(D) of the Administrative Code titled "Reference to materials."]

(A) Each incinerator unit burning hospital or medical/infectious waste shall be equipped with a continuous temperature recorder for the primary and secondary combustion chambers. The instrument shall record a measurement at least once every minute.

(B) Each medical/infectious waste incinerator with a capacity greater than one thousand pounds per hour shall be equipped with a continuous carbon monoxide monitor and alarm. The alarm shall indicate whenever concentrations exceed one hundred fifty parts per million.

(C) All facilities that operate an infectious waste incinerator shall install, maintain, and operate a radioactivity monitor and alarm. The radioactivity monitor shall be installed to monitor all medical/infectious waste prior to combustion.

(D) Any unit that is equipped with a bypass stack shall be equipped with a device to continuously monitor and record the temperature in the bypass stack. The device shall be maintained and calibrated according to manufacturers' specifications and shall record the date, time, and duration of every use of the bypass stack.

(E) A scale (accurate to within one pound) shall be installed, calibrated (to manufacturers' specifications), and operated to measure the weight of all of the material charged to the unit. A written log shall be kept that records the amount of material charged to any unit on a pounds per hour basis or a pounds per batch basis. Alternative arrangements may be approved by the director provided they can be shown to be of equivalent effectiveness as a method of regulating flow into the incinerator and generating a permanent record of pound per hour charging rates.

(F) Each medical/infectious waste incinerator with a capacity greater than one thousand pounds per hour shall be equipped with a continuous opacity monitor unless exempted by the director because of the influence of condensed water vapor in the stack exit gas.

(G) Any continuous opacity or carbon monoxide monitor required under this rule shall be installed and maintained in accordance with volume 40, Part 60 of the Code of Federal Regulations.

(H) The following operating parameters are to be measured and recorded at the stated minimum frequencies for HMIWI units equipped with a wet scrubber, or a dry scrubber followed by a fabric filter:

Operating parameters to be monitored	Minimum frequency		HMIWI		
	Data measurement	Data recording	HMIWI with dry scrubber followed by fabric filter	HMIWI with wet scrubber	HMIWI with dry scrubber followed by fabric filter and wet scrubber
Maximum operating parameters:					
Maximum charge rate	Once per charge	Once per charge	*	*	*
Maximum fabric filter inlet temperature	Continuous	Once per minute	*		*
Maximum flue gas temperature	Continuous	Once per minute		*	*
Minimum operating parameters:					
Minimum secondary chamber temperature	Continuous	Once per minute	*	*	*
Minimum dioxin/furan sorbent flow rate	Hourly	Once per hour	*		*
Minimum HCl sorbent flow rate	Hourly	Once per hour	*		*
Minimum mercury (Hg) sorbent flow rate	Hourly	Once per hour	*		*
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	Continuous	Once per minute		*	*
Minimum scrubber liquor flow rate	Continuous	Once per minute		*	*
Minimum scrubber liquor pH	Continuous	Once per minute		*	*

(I) For HMIWI units not equipped with a wet scrubber, or a dry scrubber followed by a fabric filter, equipment shall be installed, calibrated (to the manufacturers' specifications), maintained, and operated to monitor the site-specific operating parameters developed pursuant to paragraph (U) of rule 3745-75-02 of the Administrative Code.

(J) The owner or operator of a HMIWI shall record the amount and type of mercury, hydrogen chloride, and dioxin/furan sorbent used during each hour of operation, as applicable.

(K) The owner or operator of a HMIWI shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in paragraph (H) of this rule such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in paragraph (H) of this rule at all times except during periods of startup and shutdown.

(L) The owner or operator of a HMIWI shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained and recorded for seventy-five per cent of the operating hours per day and for ninety per cent of the operating days per calendar quarter that the affected facility combusts hospital waste and/or medical/infectious waste.

Effective: 03/23/2004
R.C. 119.032 review dates: 03/23/2009
Promulgated Under: 119.03
Statutory Authority: 3704.03(E)
Rule Amplifies: 3704.02
Prior Effective Dates: 7/9/1991

3745-75-05 Recordkeeping and Inspections.

[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 3745-75-01(D) of the Administrative Code titled "Reference to materials."]

(A) The owner or operator of each HMIWI shall submit a report including the information listed in paragraphs (A)(1) to (A)(8) of this rule initially within six months after submittal of the report required by paragraph (B)(4) of rule 3745-75-06 of the Administrative Code and thereafter at intervals no greater than six months. The reports shall be signed by the facilities manager.

(1) The values for the site-specific operating parameters established pursuant to paragraph (E) of rule 3745-75-06 of the Administrative Code;

(2) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the semiannum being reported, pursuant to paragraph (I) of rule 3745-75-03 of the Administrative Code.

(3) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to paragraph (I) of rule 3745-75-03 of the Administrative Code, for each of the three semiannums prior to the semiannum being reported, in order to provide the director with a summary of the performance of the facility over a period of two full years;

(4) Any information recorded under paragraph (B) of this rule for each of the two quarters encompassed by the semiannum;

(5) Any information recorded under paragraph (B) of this rule for each of the six quarters encompassed by the three prior semiannums;

(6) If a performance test was conducted during the reporting period, the results of that test;

(7) If no exceedances or malfunctions were reported under paragraph (B) of this rule for the semiannum being reported, a statement that no exceedances occurred during the reporting period;

(8) The date, time, and duration of any use of the bypass stack; the reason for malfunction, and corrective action taken;

(9) Any activation of the radioactivity alarm; the reason for the alarm, and corrective action taken.

(B) Pursuant to 40 CFR Parts 60.7 and 40 CFR 60.13(h) the owner or operator of each incinerator shall submit reports on a quarterly basis to the Ohio EPA field office containing the information listed in paragraphs (B)(1) to (B)(3) of this rule. These reports of exceedances, missing data, and malfunctions shall be submitted by February first, May first, August first, and November first of each year and shall cover the data obtained during the previous calendar quarters.

(1) Identification of calendar days for which data on emission rates or operating parameters specified under rules 3745-75-02 and 3745-75-03 of the Administrative Code exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.

(2) Identification of calendar days for which data on emission rates or operating parameters specified under rules 3745-75-02 and 3745-75-03 of the Administrative Code have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

(3) Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.

(C) All logs, charts and other records required by paragraphs (D), (E), (L) and either (H) or (I) of rule 3745-75-04 of the Administrative Code, and reports required by paragraph (A) or (B) of this rule shall be maintained for a period of five years and be available for inspection by the Ohio EPA or its authorized representatives and by the U.S. EPA at any reasonable time.

(D) All records of concentrations of pollutants listed under paragraphs (A) to (I) of rule 3745-75-02 of the Administrative Code and measurements of opacity as determined by continuous emissions monitoring, as applicable, shall be maintained for a period of five years and be available for inspection by the Ohio environmental protection agency or its authorized representatives and by the U.S. EPA at any reasonable time.

(E) All records of operator training and qualification shall be retained for five years. This shall include the names of HMIWI operators and their dates of completion of the following requirements:

(1) Training under paragraph (O) of rule 3745-75-03 of the Administrative Code;

(2) Qualification under paragraph (S) of rule 3745-75-03 of the Administrative Code; and

(3) Review of the information contained within the operations manual required by paragraph (T) of rule 3745-75-03 of the Administrative Code, initially and at least annually thereafter as prescribed by paragraph (U) of rule 3745-75-03 of the Administrative Rule.

(F) The owner or operator of an affected facility shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, the need to minimize employee exposure to pathogens, and any other environmental, energy, or safety impacts they may have. The publication “An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities,” from the American Hospital

Association, Chicago, Illinois, 1993, AHA catalogue number 057007, ISBN 0-87258-673-5 shall be considered in the development of the waste management plan.

(G) In addition to the report required under paragraph (A)(9) of this rule, the owner or operator shall immediately report any instance of radioactivity alarm activation to the Environmental Radiation Safety Section of the Bureau of Radiation Protection of the Ohio Department of Health.

Effective: 03/23/2004

R.C. 119.032 review dates: 03/23/2009

Promulgated Under: 119.03

Statutory Authority: 3704.03(E)

Rule Amplifies: 3704.02

Prior Effective Dates: 7/9/1991

3745-75-06 Certification and Compliance Time Schedules.

[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 3745-75-01(D) of the Administrative Code titled "Reference to materials."]

(A) Certification and permit application requirements.

Any owner or operator of any HMIWI subject to rule 3745-75-02 of the Administrative Code, shall, as of the effective date of federal approval of this rule, operate pursuant to a permit issued under rule 3745-77-02 of the Administrative Code and by not later than April 15, 2002, either:

(1) Certify in writing to the director that such source is in full compliance with all requirements of Chapter 3745-75 of the Administrative Code. Such certification shall include: equipment description, Ohio environmental protection agency permit application number (if assigned), and all necessary data (consistent with the appropriate permit application appendices) and calculations (including residence time) which confirm the compliance status. The certification shall also include a detailed plan of the facility that includes the dimensions of all nearby buildings and structures, including doors, windows used for ventilation, and air intakes for the heating and cooling system. This plan shall be reviewed and approved for submission by a registered professional engineer or registered architect. The certification shall also include documentation that an application for a permit to operate such source in accordance with rule 3745-77-02 of the Administrative Code was submitted; or

(2) Provide documentation of control plan(s) submitted in conformity with paragraph (C)(9) of rule 3745-77-03 of the Administrative Code, and paragraph (B)(2)(a) of this rule if applicable. The plan shall include documentation that an application for a permit to operate such source in accordance with rule 3745-77-02 of the Administrative Code was submitted. The documentation shall also include a detailed plan of the facility that includes the dimensions of all nearby buildings and structures, including doors, windows used for ventilation, and air intakes for the heating and cooling system. This plan shall be reviewed and approved for submission by a registered professional engineer or registered architect. Such documentation shall include a compliance program which will bring the source into full compliance with all of the requirements of this chapter as expeditiously as practicable, but in no event, later than the dates specified in paragraph (B) of this rule, and shall identify all reasonable interim control measures.

(B) Compliance time schedules.

(1) No owner or operator of a HMIWI, which is subject to the requirements of paragraph (A), (B), (C), (D), (E), (F), (G), (H), or (I) of rule 3745-75-02 of the Administrative Code and paragraphs (B) and (D) of rule 3745-75-03 of the Administrative Code, shall fail to achieve compliance with said requirements as expeditiously as practicable, but no later than August 15, 2001, except as allowed under paragraph (B)(2) of this rule.

(2) Any owner or operator of a HMIWI, which is subject to the requirements of paragraph (A), (B), (C), (D), (E), (F), (G), (H), or (I) of rule 3745-75-02 of the Administrative Code and paragraphs (B) and (D) of rule 3745-75-03 of the Administrative Code, may submit to the director evidence of federal approval of an extension of applicable compliance dates granted in accordance with 40 CFR 62.14470(b) or 40 CFR 62.14471(b). The evidence must be submitted

before the later of thirty days after the adoption of this rule or July 31, 2001. The director shall approve the dates, conditional upon satisfactory fulfillment of the increments of progress already required to be completed. The director will approve or deny any extensions before the later of forty-five days after the adoption of this rule or August 15, 2001. Any units not granted federal extensions before that time shall comply by August 15, 2001. The dates for extensions shall in no case require final compliance later than September 15, 2002. If a unit is granted an extension, the owner or operator must comply with the operator training and qualification requirements of paragraph (N) of rule 3745-75-03 of the Administrative Code as expeditiously as practicable, but no later than August 15, 2001. In addition, the owner or operator must demonstrate that he/she is taking steps toward compliance with the emission limits in this chapter by completing increments of progress. If an extension has been granted under 40 CFR 62.14471(b) and the director approves the extension, the dates for extension and increments of progress shall be the dates listed in that approval. If an extension has been granted under part 40 CFR 62.14470(b) and the director approves the extension, the increments of progress shall be the following:

(a) A final control plan must have been submitted to the U.S. EPA by September 15, 2000. The final control plan must, at a minimum, include a description of the air pollution control device(s) or process changes that will be employed for each unit to comply with the emission limits and other requirements of 40 CFR Subpart HHH.

(b) Contracts for onsite construction, onsite installation of emission control equipment, or incorporation of process changes must have been awarded by April 15, 2001. A signed copy of the contract(s) must have been submitted to the U.S. EPA and the director by the effective date of this rule.

(c) Onsite construction, onsite installation of emission control equipment, or process changes needed to meet the emission limits as outlined in the final control plan must begin by December 15, 2001.

(d) Onsite construction, installation of emission control equipment, or process changes must be completed by July 15, 2002.

(e) Final compliance must be achieved by September 15, 2002. This includes incorporation of all process changes and/or completion of retrofit construction as described in the final control plan, connection of air pollution control equipment or process changes such that the HMIWI is brought on line, and ensuring that all necessary process changes and air pollution control equipment are operating properly.

(3) Any owner or operator of an HMIWI which is subject to increments of progress approved under paragraph (B)(2) of this rule shall submit notification to the director within ten business days of completing or failing to complete any of the increments of progress. The notification must be signed by the facilities manager.

(4) The date of the initial performance test required under paragraph (E) of this rule shall not be later than one hundred eighty days after the date of final compliance approved under paragraph (B)(1) or (B)(2) of this rule. The following information shall be submitted within sixty days after the test is conducted and shall be signed by the facilities manager:

(a) The results of the initial performance test;

(b) The values for the site-specific operating parameters established pursuant to paragraph (E) of this rule as applicable; and

(c) The waste management plan required by paragraph (E) of rule 3745-75-05 of the Administrative Code.

(5) Any owner or operator required to install mechanical feeding equipment due to the provisions of paragraph (V) of rule 3745-75-03 of the Administrative Code shall achieve compliance with paragraph (V) as well as paragraph (F) of rule 3745-75-03 of the Administrative Code as expeditiously as practicable, but not later than the deadlines established in the following schedule:

(a) Award contracts for process modifications; or, issue orders for the purchase of component parts to accomplish process modification by May 31, 2004;

(b) Initiate on-site construction or installation of process changes by August 31, 2004;

(c) Complete on-site construction or installation of process changes by November 15, 2004;

(d) Achieve final compliance by December 15, 2004.

(6) Any owner or operator that chooses not to retrofit mechanical feeding equipment to achieve compliance with paragraph (V) of rule 3745-75-03 of the Administrative Code shall permanently cease operation of the incinerator as expeditiously as practicable, but not later than December 15, 2004.

(7) Any owner or operator of a HMIWI, which is subject to the requirements of paragraphs (A) to (G) of rule 3745-75-04 of the Administrative Code, shall achieve compliance with said requirements as expeditiously as practicable, but not later than August 15, 2001, except as allowed under paragraph (B)(2) of this rule.

(8) Any owner or operator required to install and operate a radioactivity monitor and alarm due to the provisions of paragraph (C) of rule 3745-75-04 of the Administrative Code shall achieve compliance with paragraph (C) of rule 3745-75-04 of the Administrative Code as expeditiously as practicable, but not later than August 31, 2004.

[Note: an earlier compliance date for the radioactivity monitor and alarm may pertain under a previous version of this rule for medical/infectious waste incinerators located offsite, or at facilities where radioactive materials are used or are licensed for use by the United States Nuclear Regulatory Commission.]

(C) Any owner or operator of any HMIWI subject to paragraph (N), (T) or (U) of rule 3745-75-03 of the Administrative Code shall comply with the requirements specified as expeditiously as practicable, but no later than August 15, 2001.

(D) Within thirty days after the installation of the continuous monitoring and recording equipment, the owner or operator shall conduct a performance specification test of such equipment pursuant to division (i) of section 3704.03 of the Revised Code and 40 CFR Part 60, Appendix B, performance specification test one. Personnel from the Ohio EPA field office shall

be permitted to witness the performance specification test, and two copies of the test results shall be submitted to the Ohio EPA field office within forty-five days after the test is completed.

(E) All owners or operators of HMIWI units shall conduct an initial performance test to establish the values of the operating parameters from paragraph (H) or (I) of rule 3745-75-04 of the Administrative Code, and to determine compliance with applicable emission limits using the procedures listed below. The use of the bypass stack during a performance test shall invalidate the performance test.

(1) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(2) The minimum sample time shall be one hour per test run unless otherwise indicated.

(3) EPA reference Method 1 of Appendix A of 40 CFR Part 60, shall be used to select the sampling location and number of traverse points.

(4) EPA reference Method 3, 3A, or 3B of Appendix A of 40 CFR Part 60, shall be used for gas composition analysis, including measurement of oxygen concentration. EPA reference Method 3, 3A, or 3B of Appendix A of 40 CFR Part 60, shall be used simultaneously with each reference method.

(5) The pollutant concentrations shall be adjusted to seven per cent oxygen using the following equation:

$C_{adj} = (C_{meas})(20.9 – 7) / (20.9 – \%O_2)$
where
C_{meas}=measured concentration on a dry basis;
$\%O_2$=measured oxygen concentration in the exhaust stream on a dry basis; and
C_{adj}=adjusted concentration.

(6) EPA reference Method five or twenty-none of Appendix A of 40 CFR Part 60, shall be used to measure the particulate matter emissions.

(7) EPA reference Method nine of Appendix A of 40 CFR Part 60, shall be used to measure stack opacity.

(8) EPA reference Method 10 or 10B of Appendix A of 40 CFR Part 60 shall be used to measure the carbon monoxide emissions.

(9) EPA reference Method twenty-three of Appendix A of 40 CFR Part 60, shall be used to measure total dioxin/furan emissions. The minimum sample time shall be four hours per test run. If the affected facility chooses the toxic equivalency standard for dioxin/furan under paragraph (H) of rule 3745-75-02 of the Administrative Code, the following procedure shall be used to determine compliance:

(a) Measure the concentration of each dioxin/furan tetra- through octacongener emitted using EPA reference Method twenty-three;

(b) For each dioxin/furan congener measured in accordance with paragraph (E)(9)(a) of this rule, multiply the congener concentration by its corresponding toxic equivalency factor specified in table two of Subpart Ec of 40 CFR Part 60; and

(c) Sum the products calculated in accordance with paragraph (E)(9)(b) of this rule to obtain the total concentration of dioxin/furan emitted in terms of toxic equivalency.

(10) EPA reference Method twenty-six of Appendix A of 40 CFR Part 60, shall be used to measure hydrogen chloride emissions.

(11) EPA reference Method twenty-nine of Appendix A of 40 CFR Part 60, shall be used to measure arsenic, beryllium, chromium, nickel, lead, cadmium, and mercury emissions.

(F) All owners or operators of HMIWI units shall conduct periodic performance tests to demonstrate compliance with the requirements in paragraphs (A) to (E), and (K) of rule 3745-75-02 of the Administrative Code, as described below.

(1) The tests for opacity, particulate matter, carbon monoxide, and hydrogen chloride shall be conducted annually (no more than twelve months following the previous performance test) using the applicable procedures and test methods listed in paragraph (E) of this rule. If all three performance tests over a three-year period indicate compliance with the emission limit for particulate matter, carbon monoxide, or hydrogen chloride, the owner or operator may forego a performance test for that pollutant for the subsequent two years. At a minimum, a performance test for particulate matter, carbon monoxide, and hydrogen chloride shall be conducted every third year (no more than thirty-six months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (particulate matter, carbon monoxide, or hydrogen chloride), the owner or operator may forego a performance test for that pollutant for an additional two years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three-year period indicate compliance with the emission limit. The annual test for opacity shall be conducted in any case.

(2) The use of the bypass stack during a performance test shall invalidate the performance test.

(3) The director may require more frequent tests if, in the director's judgment, there may be a violation of any applicable emission standards or there has been a change in the operation that may cause an increase in emissions due to a change in waste streams, infectious waste generators, or other operating conditions.

(4) The director of the Ohio environmental protection agency or his representative shall be allowed to witness the tests, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or performance of the control equipment. The Ohio environmental protection agency shall be notified at least thirty days in advance by the owner or operator. The notice shall specify the date, time, place, source operating parameters, proposed test procedures, and persons conducting the test. Test results shall be submitted to the Ohio EPA no later than thirty days after the completion of the test.

Effective: 03/23/2004

R.C. 119.032 review dates: 03/23/2009

Promulgated Under: 119.03

Statutory Authority: 3704.03(E)

Rule Amplifies: 3704.02

Prior Effective Dates: 7/9/1991