

WAC 173-400-050 Emission standards for combustion and incineration units. (1) Combustion and incineration emissions units must meet all requirements of WAC 173-400-040 and, in addition, no person shall cause or allow emissions of particulate matter in excess of 0.23 gram per dry cubic meter at standard conditions (0.10 grain/dscf), except((~~r~~)) for:

(a) An emissions unit combusting waste wood for the production of steam.

(b) An air curtain incinerator, not located in an area identified in WAC 173-425-040, disposing of waste wood that would otherwise be legal for silvicultural, agricultural, or outdoor burning.

No person shall allow the emission of particulate matter in excess of 0.46 gram per dry cubic meter at standard conditions (0.20 grain/dscf), as measured by 40 C.F.R. Part 60, Appendix A, Test Method 5 (in effect on the date in WAC 173-400-025), including the use of emissions units described in (a) and (b) of this subsection.

(2) **Incinerators** not subject to the requirements of chapter 173-434 WAC or WAC 173-400-050 (4) or (5), or requirements in WAC 173-400-075 (40 C.F.R. Part 63, Subpart EEE in effect on the date in WAC 173-400-025) and WAC 173-400-115 (40 C.F.R. Part 60, Subparts E, Ea, Eb, Ec, AAAA, and CCCC (in effect on the date in WAC 173-400-025)) shall be operated only during daylight hours unless written permission to operate at other times is received from the permitting authority.

(3) Measured concentrations for combustion and incineration units shall be adjusted for volumes corrected to seven percent oxygen, except when the permitting authority determines that an alternate oxygen correction factor is more representative of normal operations such as the correction factor included in an applicable NSPS or NESHAP, actual operating characteristics, or the manufacturer's specifications for the emission unit.

(4) **Commercial and industrial solid waste incineration units** constructed on or before November 30, 1999. A commercial and industrial solid waste incineration unit that commenced construction on or before November 30, 1999, that meets the applicability requirements in 40 C.F.R. 62.14510, must comply with the requirements in 40 C.F.R. Part 62, Subpart GGG (in effect on the date in WAC 173-400-025).

(a) Definitions.

(i) "Commercial and industrial solid waste incineration (CISWI) unit" means any combustion device that combusts commercial and industrial waste, as defined in this subsection. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas:

(A) The combustion unit flue gas system, which ends immediately after the last combustion chamber.

(B) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

(ii) "Commercial and industrial solid waste" means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

(b) Applicability. This section applies to incineration units that meet all three criteria:

(i) The incineration unit meets the definition of CISWI unit in this subsection.

(ii) The incineration unit commenced construction on or before November 30, 1999.

(iii) The incineration unit is not exempt under (c) of this subsection.

(c) The following types of incineration units are exempt from this subsection:

(i) *Pathological waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in 40 C.F.R. 60.2265 (in effect on the date in WAC 173-400-025) are not subject to this section if you meet the two requirements specified in (c)(i)(A) and (B) of this subsection.

(A) Notify the permitting authority that the unit meets these criteria.

(B) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(ii) *Agricultural waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of agricultural wastes as defined in 40 C.F.R. 60.2265 (in effect on the date in WAC 173-400-025) are not subject to this section if you meet the two requirements specified in (c)(ii)(A) and (B) of this subsection.

(A) Notify the permitting authority that the unit meets these criteria.

(B) Keep records on a calendar quarter basis of the weight of agricultural waste burned, and the weight of all other fuels and wastes burned in the unit.

(iii) *Municipal waste combustion units.* Incineration units that meet either of the two criteria specified in (c)(iii)(A) and (B) of this subsection.

(A) Units are regulated under 40 C.F.R. Part 60, Subpart Ea or Subpart Eb (in effect on the date in WAC 173-400-025); Spokane County Air Pollution Control Authority Regulation 1, Section 6.17 (in effect on February 13, 1999); 40 C.F.R. Part 60, Subpart AAAA (in effect on the date in WAC 173-400-025); or WAC 173-400-050(5).

(B) Units burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in 40 C.F.R. Part 60 (in effect on the date in WAC 173-400-025), Subparts Ea, Eb, and AAAA, and WAC 173-400-050(5), and that have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if you meet the two requirements in (c)(iii)(B)(I) and (II) of this subsection.

(I) Notify the permitting authority that the unit meets these criteria.

(II) Keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned in the unit.

(iv) *Medical waste incineration units.* Incineration units regulated under 40 C.F.R. Part 60, Subpart Ec (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) (in effect on the date in WAC 173-400-025);

(v) *Small power production facilities.* Units that meet the three requirements specified in (c)(v)(A) through (C) of this subsection.

(A) The unit qualifies as a small power-production facility under section 3 (17)(C) of the Federal Power Act (16 U.S.C. 796 (17)(C)).

(B) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(C) You notify the permitting authority that the unit meets all of these criteria.

(vi) *Cogeneration facilities.* Units that meet the three requirements specified in (c)(vi)(A) through (C) of this subsection.

(A) The unit qualifies as a cogeneration facility under section 3 (18)(B) of the Federal Power Act (16 U.S.C. 796 (18)(B)).

(B) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(C) You notify the permitting authority that the unit meets all of these criteria.

(vii) *Hazardous waste combustion units.* Units that meet either of the two criteria specified in (c)(vii)(A) or (B) of this subsection.

(A) Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

(B) Units regulated under 40 C.F.R. Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors) (in effect on the date in WAC 173-400-025).

(viii) *Materials recovery units.* Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters;

(ix) *Air curtain incinerators.* Air curtain incinerators that burn only the materials listed in (c)(ix)(A) through (C) of this subsection are only required to meet the requirements under "Air Curtain Incinerators" in 40 C.F.R. 60.2245 through 60.2260 (in effect on the date in WAC 173-400-025).

(A) 100 percent wood waste, as defined in 40 C.F.R. 60.2265.

(B) 100 percent clean lumber.

(C) 100 percent mixture of only wood waste, clean lumber, and/or yard waste, as these terms are defined in 40 C.F.R. 60.2265.

(x) *Cyclonic barrel burners.* See 40 C.F.R. 60.2265 (in effect on the date in WAC 173-400-025).

(xi) *Rack, part, and drum reclamation units.* See 40 C.F.R. 60.2265 (in effect on the date in WAC 173-400-025).

(xii) *Cement kilns.* Kilns regulated under 40 C.F.R. Part 63, Subpart LLL (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry) (in effect on the date in WAC 173-400-025).

(xiii) *Sewage sludge incinerators.* Incineration units regulated under 40 C.F.R. Part 60, Subpart O (Standards of Performance for Sewage Treatment Plants) (in effect on the date in WAC 173-400-025).

(xiv) *Chemical recovery units.* Combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. The seven types of units described in (c)(xiv)(A) through (G) of this subsection are considered chemical recovery units.

(A) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(B) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(C) Units burning only wood or coal feedstock for the production of charcoal.

(D) Units burning only manufacturing by-product streams/residues containing catalyst metals which are reclaimed and reused as catalysts or used to produce commercial grade catalysts.

(E) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.

(F) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.

(G) Units burning only photographic film to recover silver.

(xv) *Laboratory analysis units.* Units that burn samples of materials for the purpose of chemical or physical analysis.

(d) Exceptions.

(i) Physical or operational changes to a CISWI unit made primarily to comply with this section do not qualify as a "modification" or "reconstruction" (as defined in 40 C.F.R. 60.2815) (in effect on the date in WAC 173-400-025).

(ii) Changes to a CISWI unit made on or after June 1, 2001, that meet the definition of "modification" or "reconstruction" as defined in 40 C.F.R. 60.2815 (in effect on the date in WAC 173-400-025) mean the CISWI unit is considered a new unit and subject to WAC 173-400-115, which adopts 40 C.F.R. Part 60, Subpart CCCC (in effect on the date in WAC 173-400-025).

(e) A CISWI unit must comply with 40 C.F.R. 60.2575 through 60.2875 (in effect on the date in WAC 173-400-025). The federal rule contains these major components:

- Increments of progress towards compliance in 60.2575 through 60.2630;
- Waste management plan requirements in 60.2620 through 60.2630;
- Operator training and qualification requirements in 60.2635 through 60.2665;
- Emission limitations and operating limits in 60.2670 through 60.2685;
- Performance testing requirements in 60.2690 through 60.2725;
- Initial compliance requirements in 60.2700 through 60.2725;
- Continuous compliance requirements in 60.2710 through 60.2725;
- Monitoring requirements in 60.2730 through 60.2735;
- Recordkeeping and reporting requirements in 60.2740 through 60.2800;
- Title V operating permits requirements in 60.2805;
- Air curtain incinerator requirements in 60.2810 through 60.2870;
- Definitions in 60.2875; and

• Tables in 60.2875. In Table 1, the final control plan must be submitted before June 1, 2004, and final compliance must be achieved by June 1, 2005.

(i) Exception to adopting the federal rule. For purposes of this section, "administrator" includes the permitting authority.

(ii) Exception to adopting the federal rule. For purposes of this section, "you" means the owner or operator.

(iii) Exception to adopting the federal rule. For purposes of this section, each reference to "the effective date of state plan approval" means July 1, 2002.

(iv) Exception to adopting the federal rule. The Title V operating permit requirements in 40 C.F.R. 60.2805(a) are not adopted. Each CISWI unit, regardless of whether it is a major or nonmajor unit, is subject to the air operating permit regulation, chapter 173-401 WAC, beginning on July 1, 2002. See WAC 173-401-500 for the permit application requirements and deadlines.

(v) Exception to adopting the federal rule. The following compliance dates apply:

(A) The final control plan (Increment 1) must be submitted no later than July 1, 2003. (See Increment 1 in Table 1.)

(B) Final compliance (Increment 2) must be achieved no later than July 1, 2005. (See Increment 2 in Table 1.)

(5) **Small municipal waste combustion units** constructed on or before August 30, 1999. A small municipal waste combustion unit constructed on or before August 30, 1999, that meets the applicability requirements in 40 C.F.R. 62.14510, must comply with the requirements in 40 C.F.R. Part 62, Subpart JJJ (in effect on the date in WAC 173-400-025).

(a) Definition. "Municipal waste combustion unit" means any setting or equipment that combusts, liquid, or gasified municipal solid waste including, but not limited to, field-erected combustion units (with or without heat recovery), modular combustion units (starved air- or excess-air), boilers (for example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air-curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Two criteria further define municipal waste combustion units:

(i) Municipal waste combustion units do not include the following units:

(A) Pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under the exemptions in this subsection (5)(c)(viii) and (ix).

(B) Cement kilns that combust municipal solid waste as specified under the exemptions in this subsection (5)(c)(x).

(C) Internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(ii) The boundaries of a municipal waste combustion unit are defined as follows. The municipal waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustion unit water system. The municipal waste combustion unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set. The municipal waste combustion unit boundary starts at the municipal solid waste pit or hopper and extends through three areas:

(A) The combustion unit flue gas system, which ends immediately after the heat recovery equipment or, if there is no heat recovery equipment, immediately after the combustion chamber.

(B) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

(C) The combustion unit water system, which starts at the feed water pump and ends at the piping that exits the steam drum or superheater.

(b) Applicability. This section applies to a municipal waste combustion unit that meets these three criteria:

(i) The municipal waste combustion unit has the capacity to combust at least 35 tons per day of municipal solid waste but no more than 250 tons per day of municipal solid waste or refuse-derived fuel.

(ii) The municipal waste combustion unit commenced construction on or before August 30, 1999.

(iii) The municipal waste combustion unit is not exempt under (c) of this section.

(c) Exempted units. The following municipal waste combustion units are exempt from the requirements of this section:

(i) *Small municipal waste combustion units that combust less than 11 tons per day.* Units are exempt from this section if four requirements are met:

(A) The municipal waste combustion unit is subject to a federally enforceable order or order of approval limiting the amount of municipal solid waste combusted to less than 11 tons per day.

(B) The owner or operator notifies the permitting authority that the unit qualifies for the exemption.

(C) The owner or operator of the unit sends a copy of the federally enforceable order or order of approval to the permitting authority.

(D) The owner or operator of the unit keeps daily records of the amount of municipal solid waste combusted.

(ii) *Small power production units.* Units are exempt from this section if four requirements are met:

(A) The unit qualifies as a small power production facility under section 3 (17)(C) of the Federal Power Act (16 U.S.C. 796 (17)(C)).

(B) The unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity.

(C) The owner or operator notifies the permitting authority that the unit qualifies for the exemption.

(D) The owner or operator submits documentation to the permitting authority that the unit qualifies for the exemption.

(iii) *Cogeneration units.* Units are exempt from this section if four requirements are met:

(A) The unit qualifies as a small power production facility under section 3 (18)(C) of the Federal Power Act (16 U.S.C. 796 (18)(C)).

(B) The unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(C) The owner or operator notifies the permitting authority that the unit qualifies for the exemption.

(D) The owner or operator submits documentation to the permitting authority that the unit qualifies for the exemption.

(iv) *Municipal waste combustion units that combust only tires.* Units are exempt from this section if three requirements are met:

(A) The municipal waste combustion unit combusts a single-item waste stream of tires and no other municipal waste (the unit can co-fire coal, fuel oil, natural gas, or other nonmunicipal solid waste).

(B) The owner or operator notifies the permitting authority that the unit qualifies for the exemption.

(C) The owner or operator submits documentation to the permitting authority that the unit qualifies for the exemption.

(v) *Hazardous waste combustion units.* Units are exempt from this section if the units have received a permit under section 3005 of the Solid Waste Disposal Act.

(vi) *Materials recovery units.* Units are exempt from this section if the units combust waste mainly to recover metals. Primary and secondary smelters may qualify for the exemption.

(vii) *Cofired units.* Units are exempt from this section if four requirements are met:

(A) The unit has a federally enforceable order or order of approval limiting municipal solid waste combustion to no more than 30 percent of total fuel input by weight.

(B) The owner or operator notifies the permitting authority that the unit qualifies for the exemption.

(C) The owner or operator submits a copy of the federally enforceable order or order of approval to the permitting authority.

(D) The owner or operator records the weights, each quarter, of municipal solid waste and of all other fuels combusted.

(viii) *Plastics/rubber recycling units.* Units are exempt from this section if four requirements are met:

(A) The pyrolysis/combustion unit is an integrated part of a plastics/rubber recycling unit as defined in 40 C.F.R. 60.1940 (in effect on the date in WAC 173-400-025).

(B) The owner or operator of the unit records the weight, each quarter, of plastics, rubber, and rubber tires processed.

(C) The owner or operator of the unit records the weight, each quarter, of feed stocks produced and marketed from chemical plants and petroleum refineries.

(D) The owner or operator of the unit keeps the name and address of the purchaser of the feed stocks.

(ix) *Units that combust fuels made from products of plastics/rubber recycling plants.* Units are exempt from this section if two requirements are met:

(A) The unit combusts gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquefied petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feed stocks produced by plastics/rubber recycling units.

(B) The unit does not combust any other municipal solid waste.

(x) *Cement kilns.* Cement kilns that combust municipal solid waste are exempt.

(xi) *Air curtain incinerators.* If an air curtain incinerator as defined under 40 C.F.R. 60.1910 combusts 100 percent yard waste, then those units must only meet the requirements under 40 C.F.R. 60.1910 through 60.1930 (in effect on the date in WAC 173-400-025).

(d) Exceptions.

(i) Physical or operational changes to an existing municipal waste combustion unit made primarily to comply with this section do not qualify as a modification or reconstruction, as those terms are defined in 40 C.F.R. 60.1940 (in effect on the date in WAC 173-400-025).

(ii) Changes to an existing municipal waste combustion unit made on or after June 6, 2001, that meet the definition of modification or reconstruction, as those terms are defined in 40 C.F.R. 60.1940 (in effect on the date in WAC 173-400-025), mean the unit is considered a new unit and subject to WAC 173-400-115, which adopts 40 C.F.R. Part 60, Subpart AAAAA (in effect on the date in WAC 173-400-025).

(e) Municipal waste combustion units are divided into two subcategories based on the aggregate capacity of the municipal waste combustion plant as follows:

(i) Class I units. Class I units are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See the definition of "municipal waste combustion plant capacity" in 40 C.F.R. 60.1940 (in effect on the date in WAC 173-400-025) for the specification of which units are included in the aggregate capacity calculation.

(ii) Class II units. Class II units are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See the definition of "municipal waste combustion plant capacity" in 40 C.F.R. 60.1940 (in effect on the date in WAC 173-400-025) for the specification of which units are included in the aggregate capacity calculation.

(f) Compliance option 1.

(i) A municipal solid waste combustion unit may choose to reduce, by the final compliance date of June 1, 2005, the maximum combustion capacity of the unit to less than 35 tons per day of municipal solid waste. The owner or operator must submit a final control plan and the notifications of achievement of increments of progress as specified in 40 C.F.R. 60.1610 (in effect on the date in WAC 173-400-025).

(ii) The final control plan must, at a minimum, include two items:

(A) A description of the physical changes that will be made to accomplish the reduction.

(B) Calculations of the current maximum combustion capacity and the planned maximum combustion capacity after the reduction. Use the equations specified in 40 C.F.R. 60.1935 (d) and (e) (in effect on the date in WAC 173-400-025) to calculate the combustion capacity of a municipal waste combustion unit.

(iii) An order or order of approval containing a restriction or a change in the method of operation does not qualify as a reduction in capacity. Use the equations specified in 40 C.F.R. 60.1935 (d) and (e) (in effect on the date in WAC 173-400-025) to calculate the combustion capacity of a municipal waste combustion unit.

(g) Compliance option 2. The municipal waste combustion unit must comply with 40 C.F.R. 60.1585 through 60.1905, and 60.1935 (in effect on the date in WAC 173-400-025).

(i) The rule contains these major components:

(A) Increments of progress towards compliance in 60.1585 through 60.1640;

(B) Good combustion practices - Operator training in 60.1645 through 60.1670;

(C) Good combustion practices - Operator certification in 60.1675 through 60.1685;

(D) Good combustion practices - Operating requirements in 60.1690 through 60.1695;

(E) Emission limits in 60.1700 through 60.1710;

- (F) Continuous emission monitoring in 60.1715 through 60.1770;
- (G) Stack testing in 60.1775 through 60.1800;
- (H) Other monitoring requirements in 60.1805 through 60.1825;
- (I) Recordkeeping reporting in 60.1830 through 60.1855;
- (J) Reporting in 60.1860 through 60.1905;
- (K) Equations in 60.1935;
- (L) Tables 2 through 8.

(ii) Exception to adopting the federal rule. For purposes of this section, each reference to the following is amended in the following manner:

- (A) "State plan" in the federal rule means WAC 173-400-050(5).
- (B) "You" in the federal rule means the owner or operator.
- (C) "Administrator" includes the permitting authority.

(D) "The effective date of the state plan approval" in the federal rule means December 6, 2002.

(h) Compliance schedule.

(i) Small municipal waste combustion units must achieve final compliance or cease operation not later than December 1, 2005.

(ii) Small municipal waste combustion units must achieve compliance by May 6, 2005, for all Class II units, and by November 6, 2005, for all Class I units.

(iii) Class I units must comply with these additional requirements:

(A) The owner or operator must submit the dioxins/furans stack test results for at least one test conducted during or after 1990. The stack test must have been conducted according to the procedures specified under 40 C.F.R. 60.1790 (in effect on the date in WAC 173-400-025).

(B) Class I units that commenced construction after June 26, 1987, must comply with the dioxins/furans and mercury limits specified in Tables 2 and 3 in 40 C.F.R. Part 60, Subpart BBBB (in effect on the date in WAC 173-400-025) by the later of two dates:

(I) December 6, 2003; or

(II) One year following the issuance of an order of approval (revised construction approval or operation permit) if an order or order of approval or operation modification is required.

(i) Air operating permit. Applicability to chapter 173-401 WAC, the air operating permit regulation, begins on July 1, 2002. See WAC 173-401-500 for the permit application requirements and deadlines.

(6) **Hazardous/medical/infectious waste incinerators** constructed on or before December 1, 2008. Hospital/medical/infectious waste incinerators constructed on or before December 1, 2008, must comply with the requirements in 40 C.F.R. Part 62, Subpart HHH (in effect on the date in WAC 173-400-025).