

## Environmental Protection Agency

## § 62.15410

C = required quarterly carbon usage for the plant in kilograms (or pounds).

$f_i$  = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. This is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

$h_i$  = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

n = number of municipal waste combustion units, i, located at your plant.

(2) Unit basis.

$$C = f * h \quad (\text{Eq. 5})$$

Where:

C = required quarterly carbon usage for the unit in kilograms (or pounds).

f = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. This is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

### TITLE V REQUIREMENTS

#### § 62.15395 Does this subpart require me to obtain an operating permit under title V of the Clean Air Act?

Yes. If you are subject to this subpart on the effective date of this subpart or any time thereafter, you are required to apply for and obtain a title V operating permit.

#### § 62.15400 When must I submit a title V permit application for my existing small municipal waste combustion unit?

(a) You must submit a complete title V permit application within 12 months of when your source first becomes subject to a title V permitting program. See 40 CFR 70.3(a) and (b), 70.5(a)(1), 71.3(a) and (b), and 71.5(a)(1). As provided in section 503(c) of the Clean Air Act, permitting authorities may establish permit application deadlines earlier than the 12-month deadline.

(b) If your existing small MWC unit is not subject to an earlier permit application deadline, a complete title V permit application must be submitted not later than the date 36 months after promulgation of 40 CFR part 60, subpart BBBB (December 6, 2003), or by the effective date of the applicable State,

tribal, or Federal operating permits program, whichever is later. For any existing small MWC unit not subject to an earlier application deadline, this final application deadline applies regardless of when this Federal plan is effective, or when the relevant State or Tribal section 111(d)/129 plan is approved by EPA and becomes effective. See sections 129(e), 503(c), 503(d), and 502(a) of the Clean Air Act.

(c) A “complete” title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 71.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with Federal law. See sections 503(d) and 502(a); 40 CFR 70.7(b) and 71.7(b).

### DELEGATION OF AUTHORITY

#### § 62.15405 What authorities are retained by the Administrator?

These authorities are retained by the EPA Administrator and not transferred to the State upon delegation of authority to the State to implement and enforce this subpart.

(a) Approval of alternative non-opacity emission standard;

(b) Approval of alternative opacity standard;

(c) Approval of major alternatives to test methods;

(d) Approval of major alternatives to monitoring;

(e) Waiver of recordkeeping; and

(f) Approval of exemption to operating practice requirements in § 62.15145(e)(5).

### DEFINITIONS

#### § 62.15410 What definitions must I know?

Terms used but not defined in this section are defined in the Clean Air Act and in subparts A and B of 40 CFR part 60.

*Administrator* means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or the Administrator of a State Air Pollution Control Agency.

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor.

*Batch municipal waste combustion unit* means a municipal waste combustion unit designed so it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

*Calendar quarter* means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

*Calendar year* means 365 consecutive days (or 366 consecutive days in leap years) starting on January 1 and ending on December 31.

*Chief facility operator* means the person in direct charge and control of the operation of a municipal waste combustion unit. This person is responsible for daily onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit.

*Class I units* mean small municipal waste combustion units subject to this subpart 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" for specification of which units at a plant site are included in the aggregate capacity calculation.

*Class II units* mean small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with 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" for specification of which units at a plant site are included in the aggregate capacity calculation.

*Clean wood* means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include two items:

(1) "Yard waste", which is defined in this section.

(2) Construction, renovation, or demolition wastes (for example, railroad ties and telephone poles) that are exempt from the definition of municipal solid waste in this section.

*Cofired combustion unit* means a unit that combusts municipal solid waste with nonmunicipal solid waste fuel (for example, coal, industrial process waste). To be considered a cofired combustion unit, the unit must be subject to a federally enforceable permit that limits it to combusting a fuel feed stream which is 30 percent or less (by weight) municipal solid waste as measured each calendar quarter.

*Continuous burning* means the continuous, semicontinuous, or batch feeding of municipal solid waste to dispose of the waste, produce energy, or provide heat to the combustion system in preparation for waste disposal or energy production. Continuous burning does not mean the use of municipal solid waste solely to thermally protect the grate or hearth during the startup period when municipal solid waste is not fed to the grate or hearth.

*Continuous emission monitoring system* means a monitoring system that continuously measures the emissions of a pollutant from a municipal waste combustion unit.

*Contract* means a legally binding agreement or obligation that cannot be canceled or modified without substantial financial loss.

*De-rate* means to make a permanent physical change to the municipal waste combustor unit that reduces the maximum combustion capacity of the unit to less than or equal to 35 tons per day of municipal solid waste. A permit restriction or a change in the method of operation does not qualify as de-rating.

*Dioxins/furans* mean tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

*Effective date of State plan approval* means the effective date that the EPA approves the State plan. The FEDERAL REGISTER specifies this date in the notice that announces EPA's approval of the State plan.

*Eight-hour block average* means the average of all hourly emission concentrations or parameter levels when

the municipal waste combustion unit operates and combusts municipal solid waste measured over any of three 8-hour periods of time:

- (1) 12 midnight to 8 a.m.
- (2) 8 a.m. to 4 p.m.
- (3) 4 p.m. to 12 midnight.

*EPA-approved State plan* means a State plan that EPA has reviewed and approved based on the requirements in 40 CFR part 60 subpart B to implement and enforce 40 CFR part 60, subpart BBBB. An approved State plan becomes effective on the date specified in the notice published in the FEDERAL REGISTER announcing EPA's approval.

*Federally enforceable* means all limits and conditions the Administrator can enforce (including the requirements of 40 CFR parts 60, 61, and 63), requirements in a State's implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*First calendar half* means the period that starts on January 1 and ends on June 30 in any year.

*Fluidized bed combustion unit* means a unit where municipal waste is combusted in a fluidized bed of material. The fluidized bed material may remain in the primary combustion zone or may be carried out of the primary combustion zone and returned through a recirculation loop.

*Four-hour block average* or *4-hour block average* means the average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of six 4-hour periods:

- (1) 12 midnight to 4 a.m.
- (2) 4 a.m. to 8 a.m.
- (3) 8 a.m. to 12 noon.
- (4) 12 noon to 4 p.m.
- (5) 4 p.m. to 8 p.m.
- (6) 8 p.m. to 12 midnight.

*Mass burn refractory municipal waste combustion unit* means a field-erected municipal waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes municipal waste combustion units with a cylindrical rotary refractory wall furnace.

*Mass burn rotary waterwall municipal waste combustion unit* means a field-erected municipal waste combustion

unit that combusts municipal solid waste in a cylindrical rotary waterwall furnace.

*Mass burn waterwall municipal waste combustion unit* means a field-erected municipal waste combustion unit that combusts municipal solid waste in a waterwall furnace.

*Maximum demonstrated load of a municipal waste combustion unit* means the highest 4-hour block arithmetic average municipal waste combustion unit load achieved during 4 consecutive hours in the course of the most recent dioxins/furans stack test that demonstrates compliance with the applicable emission limit for dioxins/furans specified in this subpart.

*Maximum demonstrated temperature of the particulate matter control device* means the highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent stack test for dioxins/furans emissions that demonstrates compliance with the limits specified in this subpart.

*Medical/infectious waste* means any waste meeting the definition of medical/infectious waste contained in 40 CFR 60.51c of subpart Ec.

*Mixed fuel-fired (pulverized coal/refuse-derived fuel) combustion unit* means a combustion unit that combusts coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is combusted in suspension. This includes both conventional pulverized coal and micropulverized coal.

*Modification* or *modified municipal waste combustion unit* means a municipal waste combustion unit you have changed later than June 6, 2001, and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs.

(2) Any physical change in the municipal waste combustion unit or change in the method of operating it that increases the emission level of any air pollutant for which standards have

been established under section 129 or section 111 of the Clean Air Act. Increases in the emission level of any air pollutant are determined when the municipal waste combustion unit operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in this determination.

*Modular excess-air municipal waste combustion unit* means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

*Modular starved-air municipal waste combustion unit* means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

*Municipal solid waste* or *municipal-type solid waste* means household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (non-medical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

*Municipal waste combustion plant* means one or more municipal waste combustion units at the same location as specified under “Applicability of State Plans” (§ 62.15010(a)).

*Municipal waste combustion plant capacity* means the aggregate municipal waste combustion capacity of all municipal waste combustion units at the plant that are not subject to subparts Ea, Eb, or AAAA of 40 CFR part 60.

*Municipal waste combustion unit* means any setting or equipment that combusts solid, 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 these municipal waste combustion units:

(1) Municipal waste combustion units do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under § 62.15020(h) and (i). Municipal waste combustion units do not include cement kilns that combust municipal solid waste as specified under § 62.15020(j). Municipal waste combustion units also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(2) 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:

(i) 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.

(ii) 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.

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

*Particulate matter* means total particulate matter emitted from municipal waste combustion units as measured by EPA Reference Method 5 in Appendix A of 40 CFR part 60 and the procedures specified in § 62.15245.

*Plastics or rubber recycling unit* means an integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). These materials are processed and marketed to become input feed stock for chemical plants or petroleum refineries. The following three criteria further define a plastics or rubber recycling unit:

(1) Each calendar quarter, the combined weight of the feed stock that a plastics or rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that recycling unit processes.

(2) The plastics, rubber, or rubber tires fed to the recycling unit may originate from separating or diverting plastics, rubber, or rubber tires from municipal or industrial solid waste. These feed materials may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards.

(3) The plastics, rubber, and rubber tires fed to the recycling unit may contain incidental contaminants (for example, paper labels on plastic bottles or metal rings on plastic bottle caps).

*Potential hydrogen chloride emissions* means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

*Potential mercury emissions* means the level of emissions from a municipal

waste combustion unit that would occur from combusting municipal solid waste without controls for mercury emissions.

*Potential sulfur dioxide emissions* means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

*Protectorate* means American Samoa, the Commonwealth of Puerto Rico, the District of Columbia, Guam, the Northern Mariana Islands, and the Virgin Islands.

*Pyrolysis/combustion unit* means a unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere.

*Reconstruction* means rebuilding a municipal waste combustion unit and meeting two criteria:

(1) The reconstruction begins on or after June 6, 2001.

(2) The cumulative cost of the construction over the life of the unit exceeds 50 percent of the original cost of building and installing the municipal waste combustion unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the municipal waste combustion unit used to calculate these costs, see the definition of "municipal waste combustion unit" in this section.

*Refractory unit or refractory wall furnace* means a municipal waste combustion unit that has no energy recovery (such as through a waterwall) in the furnace of the municipal waste combustion unit.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

*Same location* means the same or contiguous properties under common ownership or control, including those separated only by a street, road, highway, or other public right-of-way. Common

ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof. Entities may include a municipality, other governmental unit, or any quasi-governmental authority (for example, a public utility district or regional authority for waste disposal).

*Second calendar half* means the period that starts on July 1 and ends on December 31 in any year.

*Shift supervisor* means the person who is in direct charge and control of operating a municipal waste combustion unit and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit during an assigned shift.

*Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) combustion unit* means a municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Standard conditions* when referring to units of measure mean a temperature of 20 °C and a pressure of 101.3 kilopascals.

*Startup period* means the period when a municipal waste combustion unit begins the continuous combustion of municipal solid waste. It does not include any warmup period during which the municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no municipal solid waste.

*State* means any of the 50 United States and the protectorates of the United States.

*State plan* means a plan submitted pursuant to section 111(d) and section 129(b)(2) of the Clean Air Act and 40 CFR part 60, subpart B, that implements and enforces 40 CFR part 60, subpart BBBB.

*Stoker (refuse-derived fuel) combustion unit* means a steam generating unit

that combusts refuse-derived fuel in a semisuspension combusting mode, using air-fed distributors.

*Total mass dioxins/furans or total mass* means the total mass of tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans as determined using EPA Reference Method 23 in Appendix A of 40 CFR part 60 and the procedures specified in § 62.15245.

*Tribal plan* means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 that implements and enforces 40 CFR part 60 subpart BBBB.

*Twenty-four hour daily average or 24-hour daily average* means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the municipal waste combustion unit operates and combusts municipal solid waste measured during the 24 hours between 12:00 midnight and the following midnight.

*Untreated lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

*Waterwall furnace* means a municipal waste combustion unit that has energy (heat) recovery in the furnace (for example, radiant heat transfer section) of the combustion unit.

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

(1) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in this section.

(2) Clean wood that is exempt from the definition of “municipal solid waste” in this section.

**Environmental Protection Agency**

**Pt. 62, Subpt. JJJ, Table 1**

TABLE 1 TO SUBPART JJJ OF PART 62—GENERIC COMPLIANCE SCHEDULES AND INCREMENTS OF PROGRESS

Affected units	Increment 1 (Submit final control plan)	Increment 2 (Award contracts)	Increment 3 (Begin onsite construction)	Increment 4 (Complete onsite construction)	Increment 5 (Final compliance)
1. Class I units <sup>a,b</sup>	August 6, 2003	April 6, 2004	October 6, 2004	October 6, 2005	November 6, 2005
2. Class II units <sup>c</sup>	September 6, 2003	Not applicable	Not applicable	Not applicable	May 6, 2005

<sup>a</sup> Class I units mean small municipal waste combustion units subject to this subpart 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 §62.15410 for definitions.

<sup>b</sup> For Class I units that began construction, reconstruction, or modification after June 26, 1987, comply with the dioxins/furans and mercury limits by the later of two dates:

1. One year after the effective date of this subpart.
2. One year after the issuance of a revised construction or operation permit, if a permit modification is required. Final compliance with the dioxins/furans limits must be achieved no later than the Class I final compliance date, even if the date one year after the issuance of a revised construction or operation permit exceeds the Class I final compliance date.

<sup>c</sup> Class II units mean all small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See §62.15410 for definitions.

TABLE 2 TO SUBPART JJJ OF PART 62—CLASS I EMISSION LIMITS FOR EXISTING SMALL MUNICIPAL WASTE COMBUSTION LIMITS

For these pollutants	You must meet these emission limits <sup>b</sup>	Using these averaging times	And determine compliance by these methods
<b>1. Organics</b>			
<b>Dioxins/furans (total mass basis)</b>	30 nanograms per dry standard cubic meter for municipal waste combustion units that do not employ an electrostatic precipitator-based emission control system -or- 60 nanograms per dry standard cubic meter for municipal waste combustion units that employ an electrostatic precipitator-based emission control system	3-run average (minimum run duration is 4 hours)	Stack test
<b>2. Metals</b>			
<b>Cadmium</b>	0.040 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
<b>Lead</b>	0.490 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
<b>Mercury</b>	0.080 milligrams per dry standard cubic meter -or- 85 percent reduction of potential mercury emissions	3-run average (run duration specified in test method)	Stack test
<b>Opacity</b>	10 percent	Thirty 6-minute averages	Stack test
<b>Particulate Matter</b>	27 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test

<sup>a</sup> Class I units mean small municipal waste combustion units subject to this subpart 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 §62.15410 for definitions.

<sup>b</sup> All emission limits (except for opacity) are measured at 7 percent oxygen.



For these pollutants	You must meet these emission limits <sup>b</sup>	Using these averaging times	And determine compliance by these methods
<b>3. Acid gases</b>			
Hydrogen Chloride	31 parts per million by dry volume -or- 95 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test
Sulfur Dioxide	31 parts per million by dry volume -or - 75 percent reduction of potential sulfur dioxide emissions	24-hour daily block geometric average concentration -or- percent reduction	Continuous emission monitoring system
<b>4. Other</b>			
Fugitive Ash	Visible emissions for no more than 5 percent of hourly observation period	Three 1-hour observation periods	Visible emission test

<sup>a</sup> Class I units mean small municipal waste combustion units subject to this subpart 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 §62.15410 for definitions.

<sup>b</sup> All emission limits (except for opacity) are measured at 7 percent oxygen.

TABLE 3 TO SUBPART JJJ OF PART 62—CLASS I NITROGEN OXIDES EMISSION LIMITS FOR EXISTING SMALL MUNICIPAL WASTE COMBUSTION UNITS<sup>A,B,C</sup>

Municipal Waste Combustion Technology	Limits for Class I Municipal Waste Combustion Units
1. Mass burn waterwall	200 parts per million by dry volume
2. Mass burn rotary waterwall	170 parts per million by dry volume
3. Refuse-derived fuel	250 parts per million by dry volume
4. Fluidized bed	220 parts per million by dry volume
5. Mass burn refractory	350 parts per million by dry volume
6. Modular excess air	190 parts per million by dry volume
7. Modular starved air	380 parts per million by dry volume

<sup>a</sup> Class I units mean small municipal waste combustion units subject to this subpart 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 §62.15410 for definitions.

<sup>b</sup> Nitrogen oxides limits are corrected to 7 percent oxygen, dry basis.

<sup>c</sup> All limits are 24-hour daily block arithmetic average concentration. Compliance is determined for Class I units by continuous emission monitoring systems.

TABLE 4 TO SUBPART JJJ OF PART 62—CLASS II EMISSION LIMITS FOR EXISTING SMALL MUNICIPAL WASTE COMBUSTION UNITS<sup>A</sup>

For these pollutants	You must meet these emission limits <sup>b</sup>	Using these averaging times	And determine compliance by these methods
<b>1. Organics</b>			
<b>Dioxins/furans (total mass basis)</b>	125 nanograms per dry standard cubic meter	3-run average (minimum run duration is 4 hours)	Stack test
<b>2. Metals</b>			
<b>Cadmium</b>	0.10 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
<b>Lead</b>	1.6 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
<b>Mercury</b>	0.080 milligrams per dry standard cubic meter -or- 85 percent reduction of potential mercury emissions	3-run average (run duration specified in test method)	Stack test
<b>Opacity</b>	10 percent	Thirty 6-minute averages	Stack test
<b>Particulate Matter</b>	70 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
<b>3. Acid gases</b>			
<b>Hydrogen Chloride</b>	250 parts per million by volume -or- 50 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test

<sup>a</sup> Class II units mean all small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See §62.15410 for definitions.

<sup>b</sup> All emission limits (except for opacity) measured at 7 percent oxygen.

For these pollutants	You must meet these emission limits <sup>b</sup>	Using these averaging times	And determine compliance by these methods
<b>3. Acid gases</b>			
<b>Nitrogen Oxides</b>	500 parts per million by dry volume	See footnote c	See footnote c
<b>Sulfur Dioxide</b>	77 parts per million by dry volume -or - 50 percent reduction of potential sulfur dioxides emissions	24-hour daily block geometric average concentration -or - percent reduction	Continuous emission monitoring system
<b>4. Other</b>			
<b>Fugitive Ash</b>	Visible emissions for no more than 5 percent of hourly observation period	Three 1-hour observation periods	Visible emission test

<sup>a</sup> Class II units mean all small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See §62.15410 for definitions.

<sup>b</sup> All emission limits (except for opacity) are measured at 7 percent oxygen.

<sup>c</sup> No monitoring, testing, recordkeeping or reporting is required to demonstrate compliance with the nitrogen oxides limit for Class II units.

TABLE 5 TO SUBPART JJJ OF PART 62—CARBON MONOXIDE EMISSION LIMITS FOR EXISTING SMALL MUNICIPAL WASTE COMBUSTION UNITS

For these municipal waste combustion units	You must meet the carbon monoxide limits <sup>a</sup>	Using these averaging times <sup>b</sup>
1. Fluidized bed	100 parts per million by dry volume	4-hour
2. Fluidized bed, mixed fuel, (wood/refuse-derived fuel)	200 parts per million by dry volume	24-hour <sup>c</sup>
3. Mass burn rotary refractory	100 parts per million by dry volume	4-hour
4. Mass burn rotary waterwall	250 parts per million by dry volume	24-hour
5. Mass burn waterwall and refractory	100 parts per million by dry volume	4-hour
6. Mixed fuel-fired, (pulverized coal/refuse-derived fuel)	150 parts per million by dry volume	4-hour
7. Modular starved-air and excess air	50 parts per million by dry volume	4-hour
8. Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel)	200 parts per million by dry volume	24-hour daily
9. Stoker, refuse-derived fuel	200 parts per million by dry volume	24-hour daily

<sup>a</sup> All emission limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.

<sup>b</sup> Block averages, arithmetic mean. See §62.15410 for definitions.

<sup>c</sup> 24-hour block average, geometric mean.

TABLE 6 TO SUBPART JJJ OF PART 62—REQUIREMENTS FOR VALIDATING CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)

For these continuous monitoring systems	Use these methods to validate pollutant concentration levels <sup>a</sup>	Use these methods to measure oxygen (or carbon dioxide) <sup>a</sup>
1. Nitrogen oxides (Class I units only) <sup>b</sup>	Method 7, 7A, 7B, 7C, 7D, or 7E	Method 3 or 3A
2. Sulfur dioxide	Method 6 or 6C	Method 3 or 3A
3. Carbon monoxide	Method 10, 10A, or 10B	Method 3 or 3A

<sup>a</sup> Methods are in Appendix A of 40 CFR part 60.

<sup>b</sup> Class I units mean small municipal waste combustion units subject to this subpart 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 §62.15410 for definitions.

TABLE 7 TO SUBPART JJJ OF PART 62—REQUIREMENTS FOR CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS)<sup>A</sup>

For these pollutants	Use these span values for your CEMS	Use these performance specifications for your CEMS (from appendix B in 40 CFR part 60)	If needed to meet minimum data requirements, use these alternate methods to collect data
1. Opacity	100 percent opacity	P.S. 1	Method 9
2. Nitrogen oxides (Class I units only)	<b>Control device outlet:</b> 125 percent of the maximum expected hourly potential nitrogen oxides emissions of the municipal waste combustion unit	P.S. 2	Method 7E
3. Sulfur dioxide	<b>Inlet to control device:</b> 125 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit <b>Control device outlet:</b> 50 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit	P.S. 2	Method 6C
4. Carbon monoxide	125 percent of the maximum expected hourly potential carbon monoxide emissions of the municipal waste combustion unit	P.S. 4A	Method 10 with alternative interference trap
5. Oxygen or carbon dioxide	25 percent oxygen or 25 percent carbon dioxide	P.S. 3	Method 3A or 3B

<sup>a</sup> Methods are in Appendix A of 40 CFR part 60.

TABLE 8 TO SUBPART JJJ OF PART 62—REQUIREMENTS FOR STACK TESTS

To measure these pollutants	Use these methods to determine the sampling location <sup>a</sup>	Use these methods to measure pollutant concentration <sup>a</sup>	Also note the following additional information
<b>1. Organics</b>			
Dioxins/furans	Method 1	Method 23 <sup>b</sup>	The minimum sampling time must be 4 hours per test run while the municipal waste combustion unit is operating at full load.
<b>2. Metals</b>			
Cadmium	Method 1	Method 29 <sup>b</sup>	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Lead	Method 1	Method 29 <sup>b</sup>	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Mercury	Method 1	Method 29 <sup>b</sup>	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Opacity	Method 9	Method 9	Use Method 9 to determine compliance with opacity limits. 3-hour observation period (thirty 6-minute averages).
Particulate matter	Method 1	Method 5 or 29 <sup>b</sup>	The minimum sample volume must be 1.0 cubic meters. The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160 ±14 °C. The minimum sampling time is 1 hour.

<sup>a</sup> Methods are in Appendix A of 40 CFR part 60.

<sup>b</sup> Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B.

<sup>c</sup> Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for Appendix F quality assurance requirements.

To measure these pollutants	Use these methods to determine the sampling location <sup>a</sup>	Use these methods to measure pollutant concentration <sup>a</sup>	Also note the following additional information
<b>3. Acid gases<sup>c</sup></b>			
Hydrogen chloride	Method 1	Method 26 or 26A <sup>b</sup>	Test runs must be at least 1 hour long while the municipal waste combustion unit is operating at full load.
<b>4. Other<sup>c</sup></b>			
Fugitive ash	Not applicable	Method 22 (visible emissions)	The three 1-hour observation period must include periods when the facility transfers fugitive ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks.

<sup>a</sup> Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B.

<sup>b</sup> Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for Appendix F quality assurance requirements.



Environmental Protection Agency

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TABLE 9 TO SUBPART JJJ OF PART 62—SITE-SPECIFIC COMPLIANCE SCHEDULES AND INCREMENTS OF PROGRESS

Class I <sup>a,b</sup> units	State	Units that will Cease Operation	Increment 1 (Submit final control plan)	Increment 2 (Award contracts)	Increment 3 (Begin onsite construction)	Increment 4 (Complete onsite construction)	Increment 5 (Final compliance)
Dutchess County Resource Recovery Facility	NY	Not Applicable	August 6, 2003	February 6, 2004	August 6, 2004	October 6, 2005	December 6, 2005
Islip-MacArthur Resource Recovery Facility	NY	Not Applicable	August 6, 2003	February 6, 2004	August 6, 2004	October 6, 2005	December 6, 2005
Harrisburg Materials, Energy, Recycling and Recovery Facility	PA	June 18, 2003	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

<sup>a</sup> Class I units mean small municipal waste combustion units subject to this subpart 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 §62.15410 for definitions.

<sup>b</sup> For Class I units that began construction, reconstruction, or modification after June 26, 1987, comply with the dioxins/furans and mercury limits by the later of two dates:

1. One year after the effective date of this subpart.
2. One year after the issuance of a revised construction or operation permit, if a permit modification is required. Final compliance with the dioxins/furans limits must be achieved no later than the Class I final compliance date, even if the date one year after the issuance of a revised construction or operation permit exceeds the Class I final compliance date.