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plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to this subpart.

(m) Cement kilns firing municipal solid waste are not subject to this subpart.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997]

EFFECTIVE DATE NOTE: At 71 FR 27332, May 10, 2006, §60.32b was amended by revising paragraphs (b)(1), (d), (e), (f)(1), (i)(1); and adding paragraph (n), effective July 10, 2006. For the convenience of the user, the revised and added text is set forth as follows:

§ 60.32b Designated facilities.

\* \* \* \*

(b) \* \* \* (1) Notifies EPA of an exemption claim,

\* \* \* \*

(d) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

(e) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

(f) \* \* \* (1) Notifies EPA of an exemption claim, and

\* \* \* \*

(i) \* \* \*

(1) Notifies EPA of an exemption claim,

\* \* \* \*

(n) Any affected facility meeting the applicability requirements under this section is not subject to subpart E of this part.

§ 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.

(a) The emission limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(3) of this section.

(1) For approval, a State plan shall include emission limits for particulate matter and opacity at least as protective as the emission limits for particulate matter and opacity specified in paragraphs (a)(1)(i) through (a)(1)(iii) of this section.

(i) The emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved]

(iii) The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility is 10 percent (6-minute average).

(2) For approval, a State plan shall include emission limits for cadmium and lead at least as protective as the emission limits for cadmium and lead specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.

(i) The emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved]

(iii) The emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 0.49 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(iv) [Reserved]

(3) For approval, a State plan shall include emission limits for mercury at least as protective as the emission limits specified in this paragraph. The emission limit for mercury contained

in the gases discharged to the atmosphere from a designated facility is 0.080 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(4) For approval, a State plan shall be submitted by August 25, 1998 and shall include an emission limit for lead at least as protective as the emission limit for lead specified in this paragraph. The emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 0.44 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(b) The emission limits for municipal waste combustor acid gases, expressed as sulfur dioxide and hydrogen chloride, are specified in paragraphs (b)(1) and (b)(2) of this section.

(1) For approval, a State plan shall include emission limits for sulfur dioxide at least as protective as the emission limits for sulfur dioxide specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility is 31 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(ii) [Reserved]

(2) For approval, a State plan shall include emission limits for hydrogen chloride at least as protective as the emission limits for hydrogen chloride specified in paragraphs (b)(2)(i) and (b)(2)(ii) of this section.

(i) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility is 31 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(ii) [Reserved]

(3) For approval, a State plan shall be submitted by August 25, 1998 and shall include emission limits for sulfur dioxide and hydrogen chloride at least as protective as the emission limits specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.

(i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility is 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(ii) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility is 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(c) The emission limits for municipal waste combustor organics, expressed as total mass dioxins/furans, are specified in paragraphs (c)(1) and (c)(2) of this section.

(1) For approval, a State plan shall include an emission limit for dioxins/furans contained in the gases discharged to the atmosphere from a designated facility at least as protective as the emission limit for dioxins/furans specified in either paragraph (c)(1)(i) or (c)(1)(ii) of this section, as applicable.

(i) The emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(ii) The emission limit for designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(2) [Reserved]

(d) For approval, a State plan shall include emission limits for nitrogen oxides at least as protective as the emission limits listed in table 1 of this subpart for designated facilities. Table

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1 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.

**TABLE 1—NITROGEN OXIDES GUIDELINES FOR DESIGNATED FACILITIES**

Municipal waste combustor technology	Nitrogen oxides emission limit (parts per million by volume) <sup>a</sup>
Mass burn waterwall .....	205
Mass burn rotary waterwall .....	250
Refuse-derived fuel combustor .....	250
Fluidized bed combustor .....	240
Mass burn refractory combustors .....	no limit

<sup>a</sup> Corrected to 7 percent oxygen, dry basis.

(1) A State plan may allow nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section.

(i) The owner or operator of a municipal waste combustor plant may elect to implement a nitrogen oxides emissions averaging plan for the designated facilities that are located at that plant and that are subject to subpart Cb, except as specified in paragraphs (d)(1)(i)(A) and (d)(1)(i)(B) of this section.

(A) Municipal waste combustor units subject to subpart Ea or Eb cannot be included in the emissions averaging plan.

(B) Mass burn refractory municipal waste combustor units and other municipal waste combustor technologies not listed in paragraph (d)(1)(iii) of this section may not be included in the emissions averaging plan.

(ii) The designated facilities included in the nitrogen oxides emissions averaging plan must be identified in the initial compliance report specified in § 60.59b(f) or in the annual report specified in § 60.59b(g), as applicable, prior to implementing the averaging plan. The designated facilities being included in the averaging plan may be redesignated each calendar year. Partial year redesignation is allowable with State approval.

(iii) To implement the emissions averaging plan, the average daily (24-hour) nitrogen oxides emission concentration level for gases discharged from the designated facilities being included in the emissions averaging plan must be no greater than the levels

specified in table 2 of this subpart. Table 2 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.

**TABLE 2—NITROGEN OXIDES LIMITS FOR EXISTING DESIGNATED FACILITIES INCLUDED IN AN EMISSIONS AVERAGING PLAN AT A MUNICIPAL WASTE COMBUSTOR PLANT<sup>a</sup>**

Municipal waste combustor technology	Nitrogen oxides emission limit (parts per million by volume) <sup>b</sup>
Mass burn waterwall .....	185
Mass burn rotary waterwall .....	220
Refuse-derived fuel combustor .....	230
Fluidized bed combustor .....	220

<sup>a</sup> Mass burn refractory municipal waste combustors and other MWC technologies not listed above may not be included in an emissions averaging plan.

<sup>b</sup> Corrected to 7 percent oxygen, dry basis.

(iv) Under the emissions averaging plan, the average daily nitrogen oxides emissions specified in paragraph (d)(1)(iii) of this section shall be calculated using equation (1). Designated facilities that are offline shall not be included in calculating the average daily nitrogen oxides emission level.

$$NO_{X_{24-hr}} = \frac{\sum_{i=1}^h (NO_{X_i})(S_i)}{\sum_{i=1}^h (S_i)} \quad (1)$$

where:

NO<sub>X 24-hr</sub>=24-hr daily average nitrogen oxides emission concentration level for the emissions averaging plan (parts per million by volume corrected to 7 percent oxygen).

NO<sub>X i-hr</sub>=24-hr daily average nitrogen oxides emission concentration level for designated facility i (parts per million by volume, corrected to 7 percent oxygen), calculated according to the procedures in § 60.58b(h) of this subpart.

S<sub>i</sub>=maximum demonstrated municipal waste combustor unit load for designated facility i (pounds per hour steam or feedwater flow as determined in the most recent dioxin/furan performance test).

h=total number of designated facilities being included in the daily emissions average.

(v) For any day in which any designated facility included in the emissions averaging plan is offline, the owner or operator of the municipal

waste combustor plant must demonstrate compliance according to either paragraph (d)(1)(v)(A) of this section or both paragraphs (d)(1)(v)(B) and (d)(1)(v)(C) of this section.

(A) Compliance with the applicable limits specified in table 2 of this subpart shall be demonstrated using the averaging procedure specified in paragraph (d)(1)(iv) of this section for the designated facilities that are online.

(B) For each of the designated facilities included in the emissions averaging plan, the nitrogen oxides emissions on a daily average basis shall be calculated and shall be equal to or less than the maximum daily nitrogen oxides emission level achieved by that designated facility on any of the days during which the emissions averaging plan was achieved with all designated facilities online during the most recent calendar quarter. The requirements of this paragraph do not apply during the first quarter of operation under the emissions averaging plan.

(C) The average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(2) of this section shall not exceed the average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(1) of this section.

(1) For all days during which the emissions averaging plan was implemented and achieved and during which all designated facilities were online, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(1)(i) through (d)(1)(v)(C)(1)(iii) of this section.

(i) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under § 60.38b(a) and specified under § 60.58b(h)(5) of subpart Eb of this part, the flue gas flow rate determined using table 19-1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.

(ii) The daily total nitrogen oxides emissions shall be calculated as the

sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(1)(i) of this section.

(iii) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(1)(ii) of this section divided by the number of calendar days for which a daily total was calculated.

(2) For all days during which one or more of the designated facilities under the emissions averaging plan was off-line, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(2)(i) through (d)(1)(v)(C)(2)(iii) of this section.

(i) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under § 60.38b(a) and specified under § 60.58b(h)(5) of subpart Eb of this part, the flue gas flow rate determined using table 19-1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.

(ii) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(2)(i) of this section.

(iii) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(2)(ii) of this section divided by the number of calendar days for which a daily total was calculated.

(2) A State plan may establish a program to allow owners or operators of municipal waste combustor plants to engage in trading of nitrogen oxides emission credits. A trading program must be approved by the Administrator before implementation.

(3) For approval, a State plan shall be submitted by August 25, 1998 and shall include emission limits for nitrogen

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oxides from fluidized bed combustors at least as protective as the emission limits listed in paragraphs (d)(3)(i) and (d)(3)(ii) of this section.

(i) The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from a designated facility that is a fluidized bed combustor is 180 parts per million by volume, corrected to 7 percent oxygen.

(ii) If a State plan allows nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section, the emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from a designated facility that is a fluidized bed combustor is 165 parts per million by volume, corrected to 7 percent oxygen.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997]

EFFECTIVE DATE NOTE: At 71 FR 27333, May 10, 2006, § 60.33b was amended by revising paragraphs (a) and (c); removing table 1 from paragraph (d) introductory text and table 2 from paragraph (d)(1)(iii); and revising paragraph (d)(2) and (d)(3) introductory text, effective July 10, 2006. For the convenience of the user, the revised text is set forth as follows:

### § 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.

(a) The emission limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(3) of this section.

(1) For approval, a State plan shall include emission limits for particulate matter and opacity at least as protective as the emission limits for particulate matter and opacity specified in paragraphs (a)(1)(i) through (a)(1)(iii) of this section.

(i) Before April 28, 2009, the emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 25 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved]

(iii) The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility is 10 percent (6-minute average).

(2) For approval, a State plan shall include emission limits for cadmium at least as pro-

TECTIVE AS THE EMISSION LIMITS FOR CADMIUM SPECIFIED IN PARAGRAPHS (a)(2)(i) THROUGH (a)(2)(iv) OF THIS SECTION.

(i) Before April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 40 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 35 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved]

(3) For approval, a State plan shall include emission limits for mercury at least as protective as the emission limits specified in this paragraph. Before April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 80 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. On and after April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 50 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(4) For approval, a State plan shall include an emission limit for lead at least as protective as the emission limit for lead specified in this paragraph. Before April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 440 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 400 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.

\* \* \* \* \*

(c) The emission limits for municipal waste combustor organics, expressed as total mass dioxin/furan, are specified in paragraphs (c)(1) and (c)(2) of this section.

(1) For approval, a State plan shall include an emission limit for dioxin/furan contained in the gases discharged to the atmosphere from a designated facility at least as protective as the emission limit for dioxin/furan specified in paragraphs (c)(1)(i), (c)(1)(ii), and (c)(1)(iii) of this section, as applicable.

(i) Before April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

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(ii) On and after April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(iii) The emission limit for designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(d) \* \* \*

(2) A State plan may establish a program to allow owners or operators of municipal waste combustor plants to engage in trading of nitrogen oxides emission credits. A trading program must be approved by EPA before implementation.

(3) For approval, a State plan shall include emission limits for nitrogen oxides from flu-

idized bed combustors at least as protective as the emission limits listed in paragraphs (d)(3)(i) and (d)(3)(ii) of this section.

\* \* \* \* \*

**§ 60.34b Emission guidelines for municipal waste combustor operating practices.**

(a) For approval, a State plan shall include emission limits for carbon monoxide at least as protective as the emission limits for carbon monoxide listed in table 3 of this subpart. Table 3 provides emission limits for the carbon monoxide concentration level for each type of designated facility.

TABLE 3—MUNICIPAL WASTE COMBUSTOR OPERATING GUIDELINES

Municipal waste combustor technology	Carbon monoxide emissions level (parts per million by volume) <sup>a</sup>	Averaging time (hrs) <sup>b</sup>
Mass burn waterwall .....	100	4
Mass burn refractory .....	100	4
Mass burn rotary refractory .....	100	24
Mass burn rotary waterwall .....	250	24
Modular starved air .....	50	4
Modular excess air .....	50	4
Refuse-derived fuel stoker .....	200	24
Fluidized bed, mixed fuel (wood/refuse-derived fuel) .....	200	<sup>c</sup> 24
Bubbling fluidized bed combustor .....	100	4
Circulating fluidized bed combustor .....	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor .....	150	4
Spreader stoker coal/refuse-derived fuel mixes fuel-fired combustor .....	200	24

<sup>a</sup> Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis. Calculated as an arithmetic average.

<sup>b</sup> Averaging times are 4-hour or 24-hour block averages.

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

(b) For approval, a State plan shall include requirements for municipal waste combustor operating practices at least as protective as those requirements listed in § 60.53b(b) and (c) of subpart Eb of this part.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997; 69 FR 42121, July 14, 2004]

EFFECTIVE DATE NOTE: At 71 FR 27333, May 10, 2006, § 60.34b was amended by removing table 3 from paragraph (a) introductory text, effective July 10, 2006.

**§ 60.35b Emission guidelines for municipal waste combustor operator training and certification.**

For approval, a State plan shall include requirements for designated fa-

ilities for municipal waste combustor operator training and certification at least as protective as those requirements listed in § 60.54b of subpart Eb of this part. The State plan shall require compliance with these requirements according to the schedule specified in § 60.39b(c)(4).

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, Aug. 25, 1997]

**§ 60.36b Emission guidelines for municipal waste combustor fugitive ash emissions.**

For approval, a State plan shall include requirements for municipal waste combustor fugitive ash emissions