

PROPOSED RULE 1165 EMISSION REDUCTIONS FROM MUNICIPAL SOLID WASTE INCINERATORS

[Rule index to be included after rule adoption]

(a) Purpose

The purpose of this rule is to reduce emissions from Municipal Solid Waste Incinerators.

(b) Applicability

This rule applies to an owner or operator of a Municipal Solid Waste Incinerator that combusts more than 35 tons or more per day of Municipal Solid Waste.

(c) Definitions

- (1) 24-HOUR BLOCK AVERAGE means the arithmetic mean of the immediately preceding 24 hours of valid operating data, with each new set of 24-hour data points nonoverlapping with the previous set of 24-hour data points, with each set beginning from 12:00 midnight and ending at 12:00 midnight the following night. The hourly operating data collected should be consecutive, but need not necessarily be continuous if the operations of the unit are intermittent.
- (2) 30-DAY ROLLING AVERAGE means the arithmetic mean of the immediately preceding 30 days of valid hourly operating data, with each new day, overlapping with the previous average's 29 days of valid operating data. Valid hourly operating data is not inclusive of periods when the unit is not operating. The hourly operating data collected should be consecutive, but need not necessarily be continuous if the operations of the unit are intermittent.
- (3) ANALYZER means the part of the Continuous Emission Monitoring System (CEMS) that analyzes the appropriate gaseous constituents of the conditioned gaseous sample or measures stack gas volumetric flow and fuel flow rates, as applicable.
- (4) BOTTOM ASH means the particles that remain after the completion of the combustion cycle of Municipal Solid Waste that is not defined as Fly Ash.
- (5) COMBUSTION CHAMBER means the furnace or incinerator component of a Unit designed to incinerate Municipal Solid Waste.

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- (6) **COMMERCIAL WASTE** means material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities.
- (7) **CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)** means the total combined equipment and systems, including the Sampling Interface, Analyzers, and Data Acquisition System, required to continuously determine air contaminants and diluent gas concentrations and/or a mass emission rate of a source effluent (as applicable).
- (8) **CONTINUOUS OPACITY MONITORING SYSTEM (COMS)** means the total equipment, including sampler, analyzer, and recorder, that continuously measures and records opacity.
- (9) **DATA ACQUISITION SYSTEM** means the part of the CEMS that processes data generated by the Analyzer and records the results, thus creating a permanent record of the output signal in terms of concentration, flow rate, and/or any other applicable parameter necessary to generate the required data in units of applicable standard. The Data Acquisition System consists of all equipment such as a computer required to convert the original recorded values to any values required for reporting.
- (10) **DECOMMISSION** means to permanently shut down a Unit by removing the fuel, air, electricity, or other utility source connected to it and inactivating the Unit's applicable South Coast AQMD permit.
- (11) **FLY ASH** means the fine particles that result from the combustion of Municipal Solid Waste that are transported from the Combustion Chamber by exhaust gases and may include residues from other air pollution control equipment such as scrubbers.
- (12) **FUGITIVE DUST** means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person or equipment.
- (13) **HOUSEHOLD WASTE** means material discarded by single and multiple residential dwellings, hotels, motels, and permanent or temporary housing establishments or facilities.
- (14) **INSTITUTIONAL WASTE** means material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities

at prisons and government facilities, and material discarded by other similar establishments or facilities.

- (15) **MALFUNCTION** means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the equipment to exceed the emission limits of an applicable rule or standard. Equipment failures that are caused in part by operator error or failure to timely complete required or schedule maintenance are not Malfunctions.
- (16) **MINIMUM OPERATING TEMPERATURE** means the minimum operating temperature specified by the manufacturer of a NO_x Post-Combustion Control Equipment.
- (17) **MUNICIPAL SOLID WASTE** means Household Waste, Commercial Waste, or Institutional Waste; landscaping or yard waste including grass, grass clippings, bushes, shrubs, and bush and shrub clippings. This definition does not include medical/infectious waste as defined by 40 CFR Part 60 Subpart Ec; any waste with properties that make it potentially dangerous or harmful to human health or the environment and meets the criteria listed in California Code of Regulations Title 22 Section 66261.3; whole or chipped tree stumps; whole or chipped tree limbs; sewage sludge; wood pallets; construction, renovation, or demolition wastes; railroad ties; telephone poles; industrial process or manufacturing process wastes; or motor vehicles.
- (18) **MUNICIPAL SOLID WASTE INCINERATOR** means any equipment that utilizes an exothermic process to combust Municipal Solid Waste in the presence of oxygen for the purpose of Municipal Solid Waste volume reduction. This definition does not include pyrolysis equipment, gasification equipment, nor equipment used to reduce the volume of Municipal Solid Waste by moisture removal and/or biological degradation processes.
- (19) **NO_x POST-COMBUSTION CONTROL EQUIPMENT** means an emission control system which eliminates, reduces, or controls the emissions of NO_x in the flue gas after Municipal Solid Waste combustion in the Unit.
- (20) **OXIDES OF NITROGEN (NO_x) EMISSIONS** means the sum of nitrogen oxide and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide.

- (21) OXIDES OF SULFUR (SOX) EMISSIONS means the sum of sulfur oxides in the flue gas, collectively expressed as sulfur dioxide.
- (22) PARTICULATE MATTER EMISSIONS means any material in the flue gas, excluding uncombined water, which exists in a finely divided form as a liquid or solid at Standard Conditions and is comprised of two sub-types:
 - (A) FILTERABLE means any Particulate Matter Emissions in the flue gas which are a solid or liquid at operating conditions and can be captured by a filter device.
 - (B) CONDENSABLE means any Particulate Matter Emissions in the flue gas which are a gas at operating conditions and cannot be captured by a filter device.
- (23) SAMPLING INTERFACE means that part of the CEMS that performs sample acquisition using one or more of the following operations: extraction, physical/chemical separation, transportation, or conditioning of a representative sample from a designated source.
- (24) SCHEDULED STARTUP means a planned Startup that is specified by January 1 of each year.
- (25) SHUTDOWN means that period of time beginning when an owner or operator reduces the load or heat input, and flue gas temperatures fall below the minimum operating temperature of the NO_x Post Combustion Control Equipment, if applicable, and which ends in a period of zero fuel flow or zero feedstock, or when combustion/circulation air flow ends if the unit does not use fuel for combustion.
- (26) STANDARD CONDITIONS means a gas temperature of 60 degrees Fahrenheit and a gas pressure of 760 millimeters mercury (14.7 pounds per square inch) absolute.
- (27) STARTUP means the time period that begins when a Municipal Solid Waste Incinerator combusts fuel, after a period of zero fuel flow or zero feedstock, or when combustion/circulation air is introduced if the Municipal Solid Waste Incinerator does not use fuel for combustion and ends when the flue gas temperature reaches the minimum operating temperature of the NO_x Post Combustion Control Equipment and reaches stable conditions.
- (28) UNIT means any Municipal Solid Waste Incinerator subject to this rule.

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(29) **WORKSPACE CLEANING METHOD** means a process to remove or collect debris using a wet mop, damp cloth, wet wash, low-pressure spray nozzle, wet vacuum, dry vacuum with dust suppression, or a combination of the above methods.

(d) **Requirements**

(1) An owner or operator of a Unit shall comply with the limits and compliance dates in Table 1, as demonstrated pursuant to subdivision (f). The emission limits in Table 1 shall not apply during Startup or Shutdown.

Table 1 – Emission Limits

Pollutant	Limit¹	Averaging Time	Compliance Date
NOx	110 ppmv	24-Hour Block Average	May 1, 2026
NOx	105 ppmv	30-Day Rolling Average	May 1, 2026
NOx	75 ppmv		May 1, 2029
Total Particulate Matter	26.4 mg/dscm	1-Hour	<i>[date of adoption]</i>
Total Particulate Matter	17.7 mg/dscm		July 1, 2029
PM–Filterable	10.2 mg/dscm		<i>[date of adoption]</i>
PM–Condensable	23.3 mg/dscm		<i>[date of adoption]</i>
PM–Condensable	15.6 mg/dscm		July 1, 2029
Opacity	10%	6-Minute	<i>[date of adoption]</i>

¹ All concentration limits corrected to 7% O₂, dry

(2) An owner or operator of a Unit shall operate and maintain an odor capture or odor removal system, that has an active South Coast AQMD permit to construct, permit to operate, or temporary permit to operate, in a waste collection or waste unloading area when Municipal Solid Waste is present.

(3) An owner or operator of a Unit shall ensure that any Fly Ash or Bottom Ash captured from the incineration of Municipal Solid Waste is contained in sealed leak-proof containers, with such containers closed at all times except when Fly Ash or Bottom Ash is actively being deposited into the container or the contents of the container are being prepared for disposal.

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- (4) An owner or operator of a Unit shall, during operation of a Unit including periods of Startup, Shutdown, or Malfunction, maintain in operation any exhaust emission control systems, including the injection of any associated chemical reagent into the exhaust stream to control NO_x, whenever the temperature of the gas to the inlet of the exhaust emission control system is greater than or equal to the Minimum Operating Temperature.
- (5) An owner or operator of a Unit shall not exceed three hours during a Startup or Shutdown when emissions from the Unit exceed the emissions limit requirements of paragraph (d)(1).
- (6) An owner or operator of a Unit that elects to Decommission a Unit, in lieu of meeting the emission limit requirements of paragraph (d)(1), shall:
 - (A) Conduct a source test pursuant to subdivision (f) if the date that Decommission activities are scheduled to begin is more than 12 months from the date the previous source test was conducted and at least 9 months have elapsed from the date the previous source test was conducted;
 - (B) Disconnect the fuel line to the Unit and place blind flange(s) to prevent fuel flow; and
 - (C) Inactivate the Unit's applicable South Coast AQMD Permit to Operate by submitting a South Coast AQMD Form 200-C, or other equivalent notification.
- (e) Housekeeping Requirements
 - (1) Beginning *[date of adoption]*, the owner or operator of a Unit shall use a Workspace Cleaning Method to clean the following areas at a minimum of once per calendar week:
 - (A) Travel areas used by personnel or vehicles throughout the facility, except for areas where Municipal Solid Waste is collected or unloaded, including internal travel areas, external travel areas, the facility entrance, the waste collection area entrance, the facility exit, the waste collection area exit, truck scales; and
 - (B) Within 20 feet of any pollution control equipment including any Particulate Matter Emissions control system and within 20 feet of any ash conveyor and mixing locations, including any roof of such equipment.

- (2) An owner or operator of a Unit shall, within one hour of the conclusion of any construction or maintenance and repair activity or event, including, but not limited to, accidents, process upsets, or equipment malfunction, that results in the deposition of Fugitive Dust Emissions, use a Workspace Cleaning Method to clean the area of Fugitive Dust Emissions where the construction or maintenance and repair activity occurred.
 - (3) An owner or operator of a Unit shall not conduct cleaning of the areas specified in paragraphs (e)(1) and (e)(2) using any dry sweeping or compressed air.
 - (4) An owner or operator of a Unit shall store all materials collected from the housekeeping requirements pursuant to paragraph (e)(1) and (e)(2) in sealed leak-proof containers. The containers shall remain sealed at all times except when materials are actively being deposited into the container or the contents of the container are being prepared for disposal.
- (f) **Monitoring and Source Testing Requirements**
- (1) An owner or operator of a Unit shall install, operate, and maintain a COMS to measure the opacity of the flue gas in the exhaust stack.
 - (2) An owner or operator of a Unit, or its hired contractor, in the event that the COMS required in paragraph (f)(1) is not operating, shall demonstrate compliance with the opacity requirement of paragraph (d)(1) by a California Air Resources Board-certified smoke reader, using U.S. EPA Method 9 once every hour until the COMS is repaired and in full operation, with any exceedances of the Table 1 limit reported in writing to the Executive Officer within 3 business days.
 - (3) An owner or operator of a Unit shall install, certify, operate, and maintain a CEMS pursuant to the applicable South Coast AQMD Rules 218.2 and 218.3 requirements to demonstrate compliance with the NO_x emission limit requirements of paragraph (d)(1) at the corresponding oxygen correction and averaging times.
 - (4) An owner or operator of a Unit shall install, calibrate, operate, and maintain a device to continuously measure the temperature of the flue gas stream at the inlet of each Particulate Matter Emissions control device, at the inlet of each NO_x Post-Combustion Control Equipment, and at the inlet of any other exhaust emission control system, and at the exhaust stack.

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- (5) An owner or operator of a Unit shall submit a source test protocol to the Executive Officer for approval no later than 90 days prior to the scheduled source test and conduct the source test within the 90-day period, or within 30 days following the source test protocol approval, whichever is later.
- (6) An owner or operator of a Unit that has a previously approved protocol pursuant to the protocol submission requirements of paragraph (f)(5) may submit the previously approved protocol if the Unit and any exhaust emission control system have not been altered or modified in a manner that requires a South Coast AQMD permit modification, and rule or permit emission concentration limits have not become more stringent since the previous source test, unless the Executive Officer determines that the previously approved protocol is no longer applicable or requires modification and a new source test protocol is required to be submitted.
- (7) An owner or operator of a Unit shall conduct a source test, using an approved contractor under the South Coast AQMD Laboratory Approval Program, per the test methods specified in Table 2, on the Unit every calendar year, with such source test conducted no less than 9 calendar months and no more than 15 calendar months following the date the previous source test was conducted.

Table 2 – Test Methods

Pollutant	Test Method
NOx, Oxygen, Carbon Dioxide	SCAQMD Method 100.1
Total Particulate	SCAQMD Method 5.2
PM – Filterable	
PM – Condensable	
Opacity	Performance Specification 1 of 40 CFR Part 60, Appendix B (COMS); U.S. EPA Method 9 (Manual Measurement)

- (g) Reporting and Recordkeeping Requirements
 - (1) An owner or operator of a Unit shall record the raw, uncorrected NOx value and oxygen value corresponding to each recorded oxygen-corrected NOx value.
 - (2) An owner or operator of a Unit shall maintain records on-site in compliance with any applicable South Coast AQMD Rule for CEMS certification, operation,

monitoring, reporting, and notification or any applicable permit condition, for a minimum of 5 years and shall make records available to the Executive Officer upon request.

- (3) An owner or operator subject to paragraph (f)(2) shall:
 - (A) Maintain a log that includes, at a minimum, the date, time, reading, and the name of the evaluator, for any visible emissions readings;
 - (B) Provide proof of a valid certification pursuant to U.S. EPA Method 9 of any person who is used to comply with paragraph (f)(2); and
 - (C) Maintain any opacity readings for a minimum of 5 years and records available to the Executive Officer upon request.
- (4) An owner or operator of a Unit shall maintain a record on a daily basis the weight of Municipal Solid Waste entering the facility for the purpose of combustion, for a minimum of 5 years and shall make records available to the Executive Officer upon request.
- (5) An owner or operator of a Unit shall maintain the following records on-site for a minimum of 5 years, and make available to the Executive Officer upon request:
 - (A) Operating logs for Startup, Shutdown, and Malfunction, which contain the date, time, duration, and reason for each event; and
 - (B) A list of Scheduled Startups.