

**METROPOLITAN HEALTH DEPARTMENT  
POLLUTION CONTROL DIVISION**

**REGULATION NO. 17**

**Regulation For Control of Commercial and Industrial Solid  
Waste Incineration Units**

**As provided for in the Code of Laws of the Metropolitan  
Government of Nashville and Davidson County, Tennessee,  
Chapter 10.56, Section 10.56.090**

**Adopted: December 11, 2001  
By the Metropolitan Board of Health  
Nashville and Davidson County**

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**Regulation No. 17**  
**Regulation For Control of Commercial and Industrial Solid Waste**  
**Incineration Units**

This Regulation establishes emission standards for existing commercial and industrial solid waste incineration units.

**Section 17-1: Definitions**

The terms used in this Regulation should have the following definitions. Terms used but not defined herein shall have the same meaning given to them in Chapter 10.56, "Air Pollution Control" of the Metropolitan Code of Laws.

- (a) **"Administrator"** - means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative.
- (b) **"Agricultural waste"** - means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.
- (c) **"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. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)
- (d) **"Auxiliary fuel"** - means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.
- (e) **"Bag leak detection system"** - means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.
- (f) **"Calendar quarter"** - means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.
- (g) **"Calendar year"** - means 365 consecutive days starting on January 1 and ending on December 31.
- (h) **"Chemotherapeutic waste"** - means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.
- (i) **"Clean lumber"** - means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include

- (j) **“Commercial and industrial solid waste incineration (CISWI) unit”** - means any combustion device that combusts commercial and industrial waste, as defined in this Regulation. 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:
- (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber.
  - (2) 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.
- (k) **“Commercial and industrial 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.
- (l) **“Contained gaseous material”** - means gases that are in a container when that container is combusted.
- (m) **“Cyclonic barrel burner”** - means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air.
- (n) **“Deviation”** - means any instance in which an affected facility subject to this Regulation, or an owner or operator of such a facility:
- (1) Fails to meet any requirement or obligation established by this Regulation, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;
  - (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this Regulation and that is included in the operating permit for any affected facility required to obtain such a permit; or
  - (3) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this Regulation during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this Regulation.
- (o) **“Dioxins/furans”** - means tetra-through octachlorinated dibenzo-p- dioxins and dibenzofurans.

- (p) **“Director”** – means the chief administrative officer of the Metropolitan Board of Health or his designated representative.
- (q) **“Discard”** - means, for purposes of this Regulation only, burned in an incineration unit without energy recovery.
- (r) **“Drum reclamation unit”** - means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.
- (s) **“Energy recovery”** - means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.
- (t) **“Fabric filter”** - means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.
- (u) **“Low-level radioactive waste”** - means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).
- (v) **“Malfunction”** - means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.
- (w) **“Modification or modified CISWI unit”** - means a CISWI unit that has been changed after June 1, 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 CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.
  - (2) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.
- (x) **“Part reclamation unit”** - means a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.
- (y) **“Particulate matter”** - means total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of appendix A of 40 CFR 60.
- (z) **“Pathological waste”** - means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).
- (aa) **“Rack reclamation unit”** - means a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused.
- (bb) **“Reconstruction”** - means rebuilding a CISWI unit and meeting two criteria:

- (1) The reconstruction begins on or after June 1, 2001.
  - (2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.
- (cc) **“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.
- (dd) **“Shutdown”** - means the period of time after all waste has been combusted in the primary chamber.
- (ee) **“Solid waste”** - means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014). For purposes of this Regulation only, solid waste does not include the waste burned in the fifteen types of units described in Paragraph 17-2(b).
- (ff) **“Standard conditions,”** - when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).
- (gg) **“Startup period”** - means the period of time between the activation of the system and the first charge to the unit.
- (hh) **“Wet scrubber”** - means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.
- (ii) **“Wood waste”** - means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:
- (1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.
  - (2) Construction, renovation, or demolition wastes.
  - (3) Clean lumber.

## **Section 17-2: Affected Facility**

- (a) The CISWI units listed in Paragraphs (1) through (3), as follows, must comply with this Regulation.
  - (1) Incineration units that meet all three criteria described in Paragraphs (i) through (iii), as follows:
    - (i) Incineration units that commenced construction on or before November 30, 1999.
    - (ii) Incineration units that meet the definition of a CISWI unit as defined in Section 17-1, "Definitions."
    - (iii) Incineration units not exempt under Paragraph 17-2(b).
  - (2) If changes are made to a CISWI unit that meet the definition of modification or reconstruction on or after June 1, 2001, the CISWI unit becomes subject to 40 CFR 60, Subpart CCCC, and this Regulation no longer applies to that unit.
  - (3) If physical or operational changes are made to an existing CISWI unit primarily to comply with this Regulation, then 40 CFR 60, Subpart CCCC does not apply to that unit. Such changes do not qualify as modifications or reconstructions under 40 CFR 60, Subpart CCCC.
- (b) This Regulation exempts fifteen types of combustion units described in Paragraphs (1) through (15), as follows:
  - (1) 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 Section 17-1, "Definitions" are not subject to this Regulation if the two requirements specified in Paragraphs (i) and (ii) are met, as follows:
    - (i) Notify the Director that the unit meets these criteria.
    - (ii) 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.
  - (2) 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 Section 17-1, "Definitions" are not subject to this Regulation if the two requirements specified in Paragraphs (i) and (ii) are met, as follows:
    - (i) Notify the Director that the unit meets these criteria.
    - (ii) 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.

- (3) Municipal waste combustion units. Incineration units that meet either of the two criteria specified in Paragraphs (i) or (ii), as follows:
- (i) Are regulated under 40 CFR 60, Subpart Ea (Standards of Performance for Municipal Waste Combustors); 40 CFR 60, Subpart Eb (Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994); 40 CFR 60, Subpart Cb (Emission Guidelines and Compliance Time for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994); 40 CFR 60, Subpart AAAA (Standards of Performance for New Stationary Sources: Small Municipal Waste Combustion Units); or 40 CFR 60, Subpart BBBB (Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units).
  - (ii) Burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in 40 CFR 60, Subpart Ea, Subpart Eb, Subpart AAAA, and Subpart BBBB, and that have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if the two requirements in Paragraphs (A) and (B) are met, as follows:
    - (A) Notify the Director that the unit meets these criteria.
    - (B) 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.
- (4) Medical waste incineration units. Incineration units regulated under 40 CFR 60, Subpart Ec (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or 40 CFR 60, Subpart Ce (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).
- (5) Small power production facilities. Units that meet the three requirements specified in Paragraphs (i) through (iii), as follows:
- (i) 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)).
  - (ii) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.
  - (iii) The Director is notified that the unit meets all of these criteria.
- (6) Cogeneration facilities. Units that meet the three requirements specified in Paragraphs (i) through (iii), as follows:
- (i) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).
  - (ii) 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.

- (iii) The Director is notified that the unit meets all of these criteria.
- (7) Hazardous waste combustion units. Units that meet either of the two criteria specified in Paragraph (i) or (ii), as follows:
  - (i) Units subject to permit requirements under section 3005 of the Solid Waste Disposal Act.
  - (ii) Units regulated under 40 CFR 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).
- (8) Materials recovery units. Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.
- (9) Air curtain incinerators. Air curtain incinerators that burn only the materials listed in Paragraphs (i) through (iii), as follows, are only required to meet the requirements under Section 17-13, "Air Curtain Incinerators:"
  - (i) 100 percent wood waste.
  - (ii) 100 percent clean lumber.
  - (iii) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.
- (10) Cyclonic barrel burners. See Section 17-1, "Definitions."
- (11) Rack, part, and drum reclamation units. See Section 17-1, "Definitions."
- (12) Cement kilns. Kilns regulated under 40 CFR 63, Subpart LLL (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).
- (13) Sewage sludge incinerators. Incineration units regulated under 40 CFR 60, Subpart O (Standards of Performance for Sewage Treatment Plants).
- (14) 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 Paragraphs (i) through (vii), as follows, are considered chemical recovery units:
  - (i) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.
  - (ii) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.
  - (iii) Units burning only wood or coal feedstock for the production of charcoal.
  - (iv) Units burning only manufacturing byproduct streams/residues containing catalyst metals which are reclaimed and reused as catalysts or used to produce commercial grade catalysts.
  - (v) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.

- (vi) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.
- (vii) Units burning only photographic film to recover silver.
- (15) Laboratory analysis units. Units that burn samples of materials for the purpose of chemical or physical analysis.
- (c) The procedures for petitioning the Administrator to add a chemical recovery unit to the list in Paragraph 17-2(b)(14) are specified in Paragraphs (1) through (3), as follows:
  - (1) If a chemical recovery unit is not listed in Paragraph 17-2(b)(14), the owner or operator of the unit can petition the Administrator to add the unit to the list. The petition must contain the six items in Paragraphs (i) through (vi), as follows:
    - (i) A description of the source of the materials being burned.
    - (ii) A description of the composition of the materials being burned, highlighting the chemical constituents in these materials that are recovered.
    - (iii) A description (including a process flow diagram) of the process in which the materials are burned, highlighting the type, design, and operation of the equipment used in this process.
    - (iv) A description (including a process flow diagram) of the chemical constituent recovery process, highlighting the type, design, and operation of the equipment used in this process.
    - (v) A description of the commercial markets for the recovered chemical constituents and their use.
    - (vi) The composition of the recovered chemical constituents and the composition of these chemical constituents as they are bought and sold in commercial markets.
  - (2) Until the Administrator approves the petition, the incineration unit is covered by this Regulation.
  - (3) If a petition is approved, the Administrator will amend 40 CFR 60.2555(n) to add the unit to the list of chemical recovery units. After the Administrator's amendment is final, the Director will likewise amend Paragraph 17-2(b)(14) to add the unit to the list of chemical recovery units.

### **Section 17-3: Increments of Progress**

- (a) The owner or operator of each affected facility must meet the two increments of progress specified in Paragraphs (1) and (2), as follows:
  - (1) Submit a final control plan within 12 months after the effective date of this Regulation.

- (2) Achieve final compliance within 36 months after the effective date of this Regulation.
- (b) Each notification of achievement of increments of progress must include the three items specified in Paragraphs (1) through (3), as follows:
  - (1) Notification that the increment of progress has been achieved.
  - (2) Any items required to be submitted with each increment of progress.
  - (3) Signature of the owner or operator of the CISWI unit.
- (c) Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.
- (d) If an increment of progress is not met, a notification must be submitted to the Director postmarked within 10 business days after the date for that increment of progress in Paragraph 17-3(a). The notification must inform the Director that the increment was not met. Reports must be submitted to the Director each subsequent calendar month until the increment of progress is met.
- (e) For the control plan increment of progress, the two requirements specified in Paragraphs (1) and (2) must be satisfied, as follows:
  - (1) Submit the final control plan that includes the five items described in Paragraphs (i) through (v), as follows:
    - (i) A description of the devices for air pollution control and process changes that will be used to comply with the emission limitations and other requirements of this Regulation.
    - (ii) The type(s) of waste to be burned.
    - (iii) The maximum design waste burning capacity.
    - (iv) The anticipated maximum charge rate.
    - (v) If applicable, the petition for site-specific operating limits under Paragraph 17-6(c).
  - (2) Maintain an onsite copy of the final control plan.
- (f) For the final compliance increment of progress, all process changes and retrofit construction of control devices must be completed, as specified in the final control plan, so that, if the affected CISWI unit is brought online, all necessary process changes and air pollution control devices would operate as designed.
- (g) The requirements for restarting a closed CISWI unit are specified in Paragraphs (1) or (2), as follows:
  - (1) If the CISWI unit is closed but will restart prior to the final compliance date of this Regulation, the increments of progress specified in Paragraph 17-3(a) must be met.
  - (2) If the CISWI unit is closed but will restart after the final compliance date of this Regulation, the emission control retrofits must be completed and emission

limitations and operating limits must be met on the date the unit restarts operation.

- (h) If an affected CISWI unit is to be closed prior to the final compliance date, the unit is not required to comply with this Regulation, provided that a closure notification, including the anticipated or actual date of closure, is submitted to the Director within 12 months after the effective date of this Regulation.

#### **Section 17-4: Waste Management Plan**

- (a) A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.
- (b) The owner or operator of each affected facility must submit a waste management plan within 12 months after the effective date of this Regulation.
- (c) A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures. Those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have must be implemented.

#### **Section 17-5: Operator Training and Qualification**

- (a) The operator training and qualification requirements are outlined in Paragraphs (1) through (3), as follows:
  - (1) No CISWI unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, the procedures in Paragraph 17-5(g) must be followed.
  - (2) Operator training and qualification must be obtained through a program approved by the Director or by completing the requirements included in Paragraph 17-5(a)(3).
  - (3) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in Paragraphs (i) through (iii), as follows:
    - (i) Training on the eleven subjects listed in Paragraphs (A) through (K), as follows:

- (A) Environmental concerns, including types of emissions.
  - (B) Basic combustion principles, including products of combustion.
  - (C) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.
  - (D) Combustion controls and monitoring.
  - (E) Operation of air pollution control equipment and factors affecting performance (if applicable).
  - (F) Inspection and maintenance of the incinerator and air pollution control devices.
  - (G) Actions to correct malfunctions or conditions that may lead to malfunction.
  - (H) Bottom and fly ash characteristics and handling procedures.
  - (I) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.
  - (J) Pollution prevention.
  - (K) Waste management practices.
- (ii) An examination designed and administered by the instructor.
  - (iii) Written material covering the training course topics that can serve as reference material following completion of the course.
- (b) The operator training course must be completed by the later of the three dates specified in Paragraphs (1) through (3), as follows:
    - (1) 36 months after the effective date of this Regulation.
    - (2) Six months after CISWI unit startup.
    - (3) Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.
  - (c) The procedures for obtaining operator qualification are listed in Paragraphs (1) and (2) as follows:
    - (1) The operator qualification must be obtained by completing a training course that satisfies the criteria under Paragraph 17-5(a)(2).
    - (2) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under Paragraph 17-5(a)(3)(ii).
  - (d) To maintain qualification, an annual review or refresher course must be completed. The annual review or refresher course shall cover, at a minimum, the five topics described in Paragraphs (1) through (5), as follows:

- (1) Update of regulations.
  - (2) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.
  - (3) Inspection and maintenance.
  - (4) Responses to malfunctions or conditions that may lead to malfunction.
  - (5) Discussion of operating problems encountered by attendees.
- (e) A lapsed operator qualification must be renewed by one of the two methods specified in Paragraphs (1) and (2), as follows:
- (1) For a lapse of less than 3 years, a standard annual refresher course, described in Paragraph 17-5(d), must be completed.
  - (2) For a lapse of 3 years or more, the initial qualification requirements in Paragraph 17-5(c)(1) must be repeated.
- (f) The site-specific documentation requirements for operator training and qualification are listed in Paragraphs (1) through (3), as follows:
- (1) Documentation must be available at the facility and readily accessible for all CISWI unit operators that addresses the ten topics described in Paragraphs (i) through (x), as follows. This information and the training records required by Paragraph 17-5(f)(3) must be maintained in a manner that they can be readily accessed and are suitable for inspection upon request.
    - (i) Summary of the applicable standards under this Regulation.
    - (ii) Procedures for receiving, handling, and charging waste.
    - (iii) Incinerator startup, shutdown, and malfunction procedures.
    - (iv) Procedures for maintaining proper combustion air supply levels.
    - (v) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this Regulation.
    - (vi) Monitoring procedures for demonstrating compliance with the incinerator operating limits.
    - (vii) Reporting and recordkeeping procedures.
    - (viii) The waste management plan required under Section 17-4, "Waste Management Plan."
    - (ix) Procedures for handling ash.
    - (x) A list of the wastes burned during the performance test.
  - (2) A program must be established for reviewing the information listed in Paragraph 17-5(f)(1) with each incinerator operator.
    - (i) The initial review of the information listed in Paragraph 17-5(f)(1) must be conducted by the later of the three dates specified in Paragraphs (A) through (C), as follows:

- (A) 36 months after the effective date of this Regulation.
  - (B) Six months after CISWI unit startup.
  - (C) Six months after being assigned to operate the CISWI unit.
- (ii) Subsequent annual reviews of the information listed in Paragraph 17-5(f)(1) must be conducted no later than 12 months following the previous review.
- (3) The information specified in Paragraphs (i) through (iii) must be maintained, as follows:
  - (i) Records showing the names of CISWI unit operators who have completed review of the information in Paragraph 17-5(f)(1) as required by Paragraph 17-5(f)(2), including the date of the initial review and all subsequent annual reviews.
  - (ii) Records showing the names of the CISWI operators who have completed the operator training requirements under Paragraph 17-5(a), met the criteria for qualification under Paragraph 17-5(c), and maintained or renewed their qualification under Paragraph 17-5(d) or (e). Records must include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.
  - (iii) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.
- (g) If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), one of the two criteria specified in Paragraphs (1) and (2) must be met, as follows, depending on the length of time that a qualified operator is not accessible:
  - (1) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in Paragraph 17-5(f)(1) within the past 12 months. However, the period when all qualified operators were not accessible must be recorded. This deviation must also be included in the annual report as specified under Paragraph 17-11(g).
  - (2) When all qualified operators are not accessible for 2 weeks or more, the two actions described in Paragraphs (i) and (ii) must be taken, as follows:
    - (i) Notify the Director of this deviation in writing within 10 days. In the notice, state what caused this deviation, what is being done to ensure that a qualified operator is accessible, and the anticipated date when a qualified operator will be accessible.
    - (ii) Submit a status report to the Director and Administrator every 4 weeks outlining what is being done to ensure that a qualified operator is accessible, stating the anticipated date when a qualified operator will be

accessible and requesting approval from the Director and Administrator to continue operation of the CISWI unit. The first status report must be submitted 4 weeks after the Director and Administrator are notified of the deviation under Paragraph 17-5(g)(2)(i). If the request to continue operation of the CISWI unit is disapproved by the Director and Administrator, the CISWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if the two requirements in Paragraphs (A) and (B) are met, as follows:

- (A) A qualified operator is accessible as required under Paragraph 17-5(a)(1).
- (B) The Director and Administrator are notified that a qualified operator is accessible and that operation is resuming.

### **Section 17-6: Emission Limitations and Operating Limits**

- (a) Each affected facility must meet the emission limitations specified in Table 17-1 on the date the initial performance test is required or completed (whichever is earlier).
- (b) Each affected facility must meet the operating limits specified in Paragraphs (1) through (3), as follows:
  - (1) If a wet scrubber is used to comply with the emission limitations, operating limits must be established for four operating parameters (as specified in Table 17-2) as described in Paragraphs (i) through (iv), as follows, during the initial performance test:
    - (i) Maximum charge rate, calculated using one of the two different procedures, as appropriate, in Paragraph (A) or (B), as follows:
      - (A) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.
      - (B) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.
    - (ii) Minimum pressure drop across the wet scrubber, which is calculated as 90 percent of the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as 90 percent of the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.
    - (iii) Minimum scrubber liquor flow rate, which is calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured

during the most recent performance test demonstrating compliance with all applicable emission limitations.

- (iv) Minimum scrubber liquor pH, which is calculated as 90 percent of the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.
  - (2) Each affected facility must meet the operating limits established during the initial performance test on the date the initial performance test is required or completed (whichever is earlier).
  - (3) If a fabric filter is used to comply with the emission limitations, each fabric filter system must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If longer than 1 hour is taken to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.
- (c) If an air pollution control device other than a wet scrubber is used, or emissions are limited in some other manner, to comply with the emission limitations under Paragraph 17-6(a), the Director and Administrator must be petitioned for specific operating limits to be established during the initial performance test and continuously monitored thereafter. The initial performance test must not be conducted until after the petition has been approved by the Director and Administrator. The petition must include the five items listed in Paragraphs (1) through (5), as follows:
- (1) Identification of the specific parameters proposed as additional operating limits.
  - (2) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.
  - (3) A discussion of how the upper and/or lower values will be established for these parameters which will establish the operating limits on these parameters.
  - (4) A discussion identifying the methods to be used to measure and the instruments to be used to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.
  - (5) A discussion identifying the frequency and methods for recalibrating the instruments used for monitoring these parameters.
- (d) The emission limitations and operating limits apply at all times except during CISWI unit startups, shutdowns, or malfunctions. Each malfunction must last no longer than 3 hours.

### **Section 17-7: Performance Testing**

- (a) The initial and annual performance tests shall be conducted as specified in Paragraphs (1) through (7), as follows:
- (1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.
  - (2) A log must be maintained of the quantity of waste burned (as required in Paragraph 17-11(a)(2)(i)) and the types of waste burned during the performance test to document that the waste burned during the performance test is representative of the waste burned under normal operating conditions.
  - (3) All performance tests must be conducted using the minimum run duration specified in Table 17-1.
  - (4) Method 1 of appendix A of 40 CFR 60 must be used to select the sampling location and number of traverse points.
  - (5) Method 3A or 3B of appendix A of 40 CFR 60 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of 40 CFR 60 must be used simultaneously with each method.
  - (6) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 17-1:

$$C_{\text{adj}} = C_{\text{meas}} \frac{(20.9 - 7)}{(20.9 - \%O_2)} \quad (\text{Eq. 17-1})$$

Where:

$C_{\text{adj}}$  = pollutant concentration adjusted to 7 percent oxygen;

$C_{\text{meas}}$  = pollutant concentration measured on a dry basis;

$(20.9 - 7)$  = 20.9 percent oxygen - 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$  = oxygen concentration measured on a dry basis, percent.

- (7) The dioxins/furans toxic equivalency must be determined by following the procedures in Paragraphs (i) through (iii), as follows:
  - (i) Measure the concentration of each dioxin/furan tetra- through octa-congener emitted using EPA Method 23.
  - (ii) For each dioxin/furan congener measured in accordance with Paragraph 17-7(a)(7)(i), multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 17-3.
  - (iii) Sum the products calculated in accordance with Paragraph 17-7(a)(7)(ii) to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

- (b) The results of performance tests are used to demonstrate compliance with the emission limitations in Table 17-1.

### **Section 17-8: Initial Compliance Requirements**

- (a) An initial performance test must be conducted, as required under 40 CFR 60.8, to determine compliance with the emission limitations in Table 17-1 and to establish operating limits using the procedure in Paragraph 17-6(b) or (c). The initial performance test must be conducted using the test methods listed in Table 17-1 and the procedures in Paragraph 17-7(a).
- (b) The initial performance test must be conducted within 42 months after the effective date of this Regulation.

### **Section 17-9: Continuous Compliance Requirements**

- (a) Continuous compliance with the emission limitations and the operating limits must be demonstrated as specified in Paragraphs (1) through (3), as follows:
  - (1) An annual performance test for particulate matter, hydrogen chloride, and opacity must be conducted for each CISWI unit as required under 40 CFR 60.8 to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 17-1 and the procedures in Paragraph 17-7(a).
  - (2) The operating parameters specified in Paragraph 17-6(b) or established under Paragraph 17-6(c) must be continuously monitored. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under Paragraph 17-6(c). Operating limits do not apply during performance tests.
  - (3) The types of waste burned in an affected CISWI unit under normal operation must be the same types of waste burned in that unit during the performance test used to establish operating limits.
- (b) The annual performance tests for particulate matter, hydrogen chloride, and opacity must be conducted within 12 months following the initial performance test. Subsequent annual performance tests must be conducted within 12 months following the previous performance test.
- (c) Performance testing may be conducted less often as provided for in Paragraphs (1) through (3), as follows:

- (1) Tests may be conducted less often for a given pollutant if all performance tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show that the affected facility complies with the emission limitation. In this case, performance tests for that pollutant are not required for the next 2 years. A performance test must be conducted during the third year and no more than 36 months following the previous performance test.
  - (2) If an affected CISWI unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, performance tests for these pollutants may be conducted every third year, but each test must be within 36 months of the previous performance test.
  - (3) If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, annual performance tests for that pollutant shall be conducted until all performance tests over a 3-year period show compliance.
- (d) Repeat performance tests may be conducted at any time to establish new values for the operating limits.
- (1) The Director may request a repeat performance test at any time.
  - (2) The performance test must be repeated if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

### **Section 17-10: Monitoring**

- (a) Monitoring equipment must be installed and parameters must be monitored as specified in Paragraphs (1) through (3), as follows:
- (1) If a wet scrubber is used to comply with the emission limitation under Paragraph 17-6(a), devices (or established methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 17-2 must be installed, calibrated (to manufacturers' specifications), maintained, and operated. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 17-2 at all times except as specified in Paragraph 17-10(b)(1).
  - (2) If a fabric filter is used to comply with the requirements of this Regulation, a bag leak detection system must be installed, calibrated, maintained, and continuously operated as specified in Paragraphs (i) through (viii), as follows:
    - (i) Install and operate a bag leak detection system for each exhaust stack of the fabric filter.
    - (ii) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

- (iii) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.
  - (iv) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
  - (v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
  - (vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
  - (vii) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.
  - (viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (3) If something other than a wet scrubber is used to comply with the emission limitations under Paragraph 17-6(a), the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in Paragraph 17-6(c) must be installed, calibrated (to the manufacturers' specifications), maintained, and operated.
- (b) The minimum amount of monitoring data that must be obtained is specified in Paragraphs (1) and (2), as follows:
- (1) Except for monitoring malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), all monitoring must be conducted at all times the CISWI unit is operating.
  - (2) Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or quality control activities must not be used for meeting the requirements of this Regulation, including data averages and calculations. All the data collected during all other periods must be used in assessing compliance with the operating limits.

### **Section 17-11: Recordkeeping and Reporting**

- (a) The 13 items (as applicable) specified in Paragraphs (1) through (13) as follows, must be maintained for a period of at least 5 years:
- (1) Calendar date of each record.
  - (2) Records of the data described in Paragraphs (i) through (vi), as follows:

- (i) The CISWI unit charge dates, times, weights, and hourly charge rates.
  - (ii) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.
  - (iii) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.
  - (iv) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.
  - (v) For affected CISWI units that establish operating limits for controls other than wet scrubbers under Paragraph 17-6(c), data collected for all operating parameters used to determine compliance with the operating limits must be maintained.
  - (vi) If a fabric filter is used to comply with the emission limitations, the date, time, and duration of each alarm; the time corrective action was initiated and completed; a brief description of the cause of the alarm; and the corrective action taken must be recorded. The percent of operating time during each 6-month period that the alarm sounds, calculated as specified in Paragraph 17-6(b)(3), must also be recorded.
- (3) Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.
  - (4) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.
  - (5) Identification of calendar dates and times for which data show a deviation from the operating limits in Table 17-2 or a deviation from other operating limits established under Paragraph 17-6(c) with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.
  - (6) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. A copy of the complete test report including calculations must be retained by the affected facility.
  - (7) Records showing the names of CISWI unit operators who have completed review of the information in Paragraph 17-5(f)(1) as required by Paragraph 17-5(f)(2), including the date of the initial review and all subsequent annual reviews.
  - (8) Records showing the names of the CISWI operators who have completed the operator training requirements under Paragraph 17-5(a), met the criteria for qualification under Paragraph 17-5(c), and maintained or renewed their qualification under Paragraph 17-5(d) or (e). Records must include documentation

of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

- (9) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.
  - (10) Records of calibration of any monitoring devices as required under Paragraph 17-10(a).
  - (11) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.
  - (12) The information listed in Paragraph 17-5(f)(1).
  - (13) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).
- (b) All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Director.
  - (c) See Table 17-4 for a summary of the reporting requirements.
  - (d) The waste management plan must be submitted within 12 months after the effective date of this Regulation.
  - (e) The information specified in Paragraphs (1) through (3), as follows, must be submitted no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.
    - (1) The complete test report for the initial performance test results obtained under Paragraph 17-8(a), as applicable.
    - (2) The values for the site-specific operating limits established in Paragraph 17-6(b) or (c).
    - (3) If a fabric filter is used to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by Paragraph 17-10(a)(2).
  - (f) An annual report must be submitted no later than 12 months following the submission of the information in Paragraph 17-11(e). Subsequent reports must be submitted no more than 12 months following the previous report. (If the unit is subject to permitting requirements under Regulation No. 13, "Part 70 Operating Permit Program" of the Metropolitan Code of Laws, reports may be required more frequently.)
  - (g) The annual report required under Paragraph 17-11(f) must include the ten items listed in Paragraphs (1) through (10), as follows. The deviation reports as specified in Paragraphs 17-11(h), (i), and (j) must also be submitted if there are any deviations from the operating limits or the emission limitations.
    - (1) Company name and address.
    - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
    - (3) Date of report and beginning and ending dates of the reporting period.

- (4) The values for the operating limits established pursuant to Paragraph 17-6(b) or (c).
  - (5) If no deviation from any emission limitation or operating limit that applies to the affected facility has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the operating limits was inoperative, inactive, malfunctioning or out of control.
  - (6) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.
  - (7) Information recorded under Paragraphs 17-11(a)(2)(vi) and (3) through (5) for the calendar year being reported.
  - (8) If a performance test was conducted during the reporting period, the results of that test.
  - (9) If the requirements of Paragraph 17-9(c)(1) or (2) are met, and a performance test was not conducted during the reporting period, the annual report must state that the requirements of Paragraph 17-9(c)(1) or (2) were met, and, therefore, a performance test was not required during the reporting period.
  - (10) Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.
- (h) A deviation report as specified in Paragraphs (1) and (2) must be submitted, as follows:
- (1) If any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this Regulation, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.
  - (2) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31).
- (i) In each report required under Paragraph 17-11(h), for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this Regulation, the six items described in Paragraphs (1) through (6) must be included, as follows:
- (1) The calendar dates and times the affected CISWI unit deviated from the emission limitations or operating limit requirements.
  - (2) The averaged and recorded data for those dates.
  - (3) Duration and causes of each deviation from the emission limitations or operating limits and the corrective actions.
  - (4) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

- (5) The dates, times, number, duration, and causes for monitoring downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).
- (6) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.
- (j) If all qualified operators are not accessible, the reports as specified in Paragraphs (1) and (2) must be submitted, as follows:
  - (1) If all qualified operators are not accessible for 2 weeks or more, the two actions in Paragraphs (i) and (ii) must be taken, as follows:
    - (i) Submit a notification of the deviation within 10 days that includes the three items in Paragraphs (A) through (C), as follows:
      - (A) A statement of what caused the deviation.
      - (B) A description of what is being done to ensure that a qualified operator is accessible.
      - (C) The anticipated date by which a qualified operator will be available.
    - (ii) Submit a status report to the Director and Administrator every 4 weeks that includes the three items in Paragraphs (A) through (C), as follows:
      - (A) A description of what is being done to ensure that a qualified operator is accessible.
      - (B) The anticipated date by which a qualified operator will be accessible.
      - (C) A request for approval from the Director and Administrator to continue operation of the CISWI unit.
  - (2) If an affected CISWI unit was shut down by the Director and Administrator, under the provisions of Paragraph 17-5(g)(2)(ii), due to a failure to provide an accessible qualified operator, the Director and Administrator must be notified that operation is resuming once a qualified operator is accessible.
- (k) The notifications as provided by 40 CFR 60.7 must also be submitted.
- (l) Initial, annual, and deviation reports must be submitted electronically or in paper format, postmarked on or before the submittal due dates.
- (m) If the Director agrees, the semiannual or annual reporting dates may be changed. See 40 CFR 60.19(c) for procedures to seek approval to change the reporting date.

### **Section 17-12: Title V Operating Permits**

Each CISWI unit must operate pursuant to a permit issued under section **129(e)** of the Clean Air Act and Regulation No. 13, "Part 70 Operating Permit Program" of the Metropolitan Code of Laws by December 1, 2003. If some triggering requirement(s) other than this subpart (for

example, being a major source) causes an affected CISWI unit to become subject to Title V, then that unit may be required to apply for and obtain a Title V permit prior to the deadline noted above. If more than one requirement triggers the requirement to apply for a Title V permit, the 12-month timeframe for filing a Title V application is triggered by the requirement which first causes the source to be subject to Title V.

### **Section 17-13: Air Curtain Incinerators**

- (a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.) Air curtain incinerators that burn only the materials listed in Paragraphs (1) through (3), as follows, are only required to meet the requirements under this Section:
  - (1) 100 percent wood waste.
  - (2) 100 percent clean lumber.
  - (3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.
- (b) Each affected air curtain incinerator subject to this Section must meet the two increments of progress specified in Paragraphs (1) and (2), as follows:
  - (1) A final control plan must be submitted within 12 months after the effective date of this Regulation.
  - (2) Final compliance must be achieved within 36 months after the effective date of this Regulation.
- (c) Each notification of achievement of increments of progress must include the three items described in Paragraphs (1) through (3), as follows:
  - (1) Notification that the increment of progress has been achieved.
  - (2) Any items required to be submitted with each increment of progress (see Paragraph 17-13(f)).
  - (3) Signature of the owner or operator of the incinerator.
- (d) Each notification for achieving an increment of progress must be postmarked no later than 10 business days after the compliance date for the increment.
- (e) If an affected air curtain incinerator fails to meet an increment of progress, the owner or operator must submit a notification to the Director postmarked within 10 business days after the date for that increment of progress in Paragraph 17-13(b). The owner or operator must inform the Director that the increment was not met, and reports must be submitted each subsequent calendar month until the increment of progress is met.

- (f) The owner or operator of an affected air curtain incinerator must satisfy the two requirements for the control plan increment of progress specified in Paragraphs (1) and (2), as follows:
  - (1) Submit the final control plan, including a description of any devices for air pollution control and any process changes that will be used to comply with the emission limitations and other requirements of this Regulation.
  - (2) Maintain an onsite copy of the final control plan.
- (g) For the final compliance increment of progress, each owner or operator of an affected air curtain incinerator must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.
- (h) If an affected air curtain incinerator is closed and then restarted, the owner or operator of such air curtain incinerator must comply with the requirements of Paragraph (1) or (2), as follows:
  - (1) If an incinerator is closed but will restart prior to 36 months following the effective date of this Regulation, the owner or operator of the affected air curtain incinerator must meet the increments of progress specified in Paragraph 17-13(b).
  - (2) If an incinerator is closed but will restart after 36 months following the effective date of this Regulation, the emission control retrofits must be completed and the emission limitations must be met on the date the incinerator restarts operation.
- (i) If an owner or operator of an affected air curtain incinerator plans to permanently close such incinerator rather than comply with this Regulation, a closure notification, including the date of closure, must be submitted to the Director within 12 months following the effective date of this Regulation.
- (j) After the date the initial stack test is required or completed (whichever is earlier), each affected air curtain incinerator must meet emissions limitations in accordance with Paragraphs (1) through (3), as follows:
  - (1) The opacity limitation is 10 percent (6-minute average), except during the startup period as described in Paragraph 17-13(j)(2).
  - (2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.
  - (3) Except during malfunctions, the requirements of this Regulation apply at all times, and each malfunction must not exceed 3 hours.
- (k) The owner or operator of each affected air curtain incinerator must comply with the monitoring requirements in accordance with Paragraphs (1) through (3), as follows:
  - (1) Method 9 of appendix A of 40 CFR 60 must be used to determine compliance with the opacity limitation.
  - (2) An initial test for opacity must be conducted as specified in 40 CFR 60.8 no later than 42 months following the effective date of this Regulation.

- (3) After the initial test for opacity, annual tests must be conducted no more than 12 calendar months following the date of the previous test.
- (1) The owner or operator of each affected air curtain incinerator must comply with the recordkeeping and reporting requirements in accordance with Paragraphs (1) through (5), as follows:
  - (1) Records of results of all initial and annual opacity tests must be kept onsite in either paper copy or electronic format, unless the Director approves another format, for at least 5 years.
  - (2) All records must be made available for submittal to the Director or for an inspector's onsite review.
  - (3) An initial report must be submitted no later than 60 days following the initial opacity test that includes the information specified in Paragraphs (i) and (ii), as follows:
    - (i) The types of materials you plan to combust in your air curtain incinerator.
    - (ii) The results (each 6-minute average) of the initial opacity tests.
  - (4) Annual opacity test results must be submitted within 12 months following the previous report.
  - (5) Initial and annual opacity test reports must be submitted as electronic or paper copy on or before the applicable submittal date and a copy must be kept onsite for a period of 5 years.

**Section 17-14: Tables**

**Table 17-1 to Regulation No. 17 – Emission Limitations**

For the air pollutant	This emission limitation must be met <sup>a</sup>	Using this averaging time	And determining compliance using this method
Cadmium .....	0.004 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of appendix A of 40 CFR 60)
Carbon monoxide ....	157 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10, 10A, or 10B, of appendix A of 40 CFR 60)
Dioxins/furans (toxic equivalency basis).	0.41 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 23 of appendix A of 40 CFR 60)
Hydrogen chloride ...	62 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 26A of appendix A of 40 CFR 60)
Lead .....	0.04 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of appendix A of 40 CFR 60)
Mercury .....	0.47 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of appendix A of 40 CFR 60)
Opacity .....	10 percent.....	6-minute	Performance test (Method 9 of

Oxides of nitrogen ...	388 parts per million by dry volume.	averages..... 3-run average (1 hour minimum sample time per run).	appendix A of 40 CFR 60) Performance test (Methods 7, 7A, 7C, 7D, or 7E of appendix A of 40 CFR 60)
Particulate matter ....	70 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 5 or 29 of appendix A of 40 CFR 60)
Sulfur dioxide .....	20 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A of 40 CFR 60)

<sup>a</sup> All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

Table 17-2 to Regulation No. 17 - Operating Limits for Wet Scrubbers

For these operating parameters	These operating limits must be established	And monitor using these minimum frequencies		
		Data measurement	Data recording	Averaging time
Charge rate .....	Maximum charge rate.	Continuous .....	Every hour .....	Daily (batch units), 3-hour rolling (continuous and intermittent units) <sup>a</sup>
Pressure drop across the wet scrubber or amperage to wet scrubber.	Minimum pressure drop or amperage.	Continuous .....	Every 15 minutes	3-hour rolling <sup>a</sup>
Scrubber liquor flow rate .....	Minimum flow rate ..	Continuous .....	Every 15 minutes	3-hour rolling <sup>a</sup>
Scrubber liquor pH .....	Minimum pH .....	Continuous .....	Every 15 minutes	3-hour rolling <sup>a</sup>

<sup>a</sup> Calculated each hour as the average of the previous 3 operating hours

Table 17-3 to Regulation No. 17 - Toxic Equivalency Factors

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin .....	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin .....	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin .....	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin .....	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin .....	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin .....	0.01
Octachlorinated dibenzo-p-dioxin .....	0.001
2,3,7,8-tetrachlorinated dibenzofuran .....	0.1
2,3,4,7,8-pentachlorinated dibenzofuran .....	0.5
1,2,3,7,8-pentachlorinated dibenzofuran .....	0.05

1,2,3,4,7,8-hexachlorinated dibenzofuran .....	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran .....	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran .....	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran .....	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran .....	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran .....	0.01
Octachlorinated dibenzofuran .....	0.001
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Table 17-4 to Regulation No. 17 - Summary of Reporting Requirements <sup>a</sup>

Report	Due date	Contents	Reference Paragraph
Waste Management Plan.	(12 months after the effective date of this Regulation).	<ul style="list-style-type: none"> <li>Waste management plan.</li> </ul>	17-11(d)
Initial Test Report	No later than 60 days following the initial performance test.	<ul style="list-style-type: none"> <li>Complete test report for the initial performance test</li> <li>The values for the site-specific operating limits</li> <li>Installation of bag leak detection systems for fabric filters</li> </ul>	17-11(e)
Annual Report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	<ul style="list-style-type: none"> <li>Name and address</li> <li>Statement and signature by responsible official</li> <li>Date of report</li> <li>Values for the operating limits</li> <li>If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period</li> <li>Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported</li> <li>Information for deviations or malfunctions recorded under Paragraph 17-11(a)(2)(vi) and (3) through (5)</li> <li>If a performance test was conducted during the reporting period, the results of the test</li> <li>If a performance test was not conducted during the reporting period, a statement that the requirements of Paragraph 17-9(c)(1) or (2) were met</li> <li>Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks</li> </ul>	17-11(f) and (g)
Emission Limitation or Operating Limit Deviation Report.	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	<ul style="list-style-type: none"> <li>Dates and times of deviations</li> <li>Averaged and recorded data for these dates</li> <li>Duration and causes for each deviation and the corrective actions taken</li> <li>Copy of operating limit monitoring data and any test reports</li> <li>Dates, times, and causes for monitor downtime incidents</li> <li>Whether each deviation occurred during a period of startup, shutdown, or malfunction</li> </ul>	17-11(h) and (i)
Qualified Operator Deviation Notification.	Within 10 days of deviation	<ul style="list-style-type: none"> <li>Statement of cause of deviation</li> <li>Description of efforts to have an accessible qualified operator</li> <li>The date a qualified operator will be accessible</li> </ul>	17-11(j)(1)(i)
Qualified Operator Deviation Status Report.	Every 4 weeks following deviation	<ul style="list-style-type: none"> <li>Description of efforts to have an accessible qualified operator</li> <li>The date a qualified operator will be accessible</li> <li>Request for approval to continue operation</li> </ul>	17-11(j)(1)(ii)

**This table is continued on the following page.**

Table 17-4 to Regulation No. 17 - Summary of Reporting Requirements<sup>a</sup> - Continued

Report	Due date	Contents	Reference Paragraph
Qualified Operator Deviation Notification of Resumed Operation.	Prior to resuming operation	<ul style="list-style-type: none"> <li>• Notification that operation is resuming</li> </ul>	17-11(j)(2)

<sup>a</sup> This table is only a summary, see the referenced sections of the rule for the complete requirements.

Approved this \_\_\_\_\_ day of \_\_\_\_\_, 2001,  
by the members of the Metropolitan Board of Health:

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