MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

"AIR EMISSION REGULATIONS FOR THE PREVENTION, ABATEMENT, AND CONTROL OF AIR CONTAMINANTS"

APC-S-1

Proposed Amendments
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Proposed Amendments

SECTION 1. GENERAL

1. Authority. Pursuant to the authority granted by Miss. Code Ann. 49-17-17, the following regulations are adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants being discharged into the atmosphere as particulates, smoke, fly ash, solvents, and other chemicals or combinations thereof.

2. Except as otherwise noted herein, stack emissions testing for demonstration of compliance with the regulations herein may be performed in accordance with the Test Methods of the U. S. Environmental Protection Agency in place at the time testing is performed or as otherwise approved by the staff of the Mississippi Office of Pollution Control and the U. S. Environmental Protection Agency.

   Notwithstanding this or any other provision in these or any other regulations, the owner or operator may use any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, for the purpose of submitting compliance certifications.

   Notwithstanding any other provision in these or any other air pollution control regulations, any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, can be used to establish whether or not a person has violated or is in violation of any standard or applicable requirement.

3. In the event of a conflict between any of the requirements of these regulations and/or applicable requirements of any other regulation or law, the more stringent requirements shall be applied.

SECTION 2. DEFINITIONS

The terms used in the regulations shall, unless the context otherwise requires, have the following meanings:

1. "Air cleaning device." Any method, process or equipment which removes, reduces or renders less noxious air contaminants discharged into the atmosphere. This term is synonymous with air pollution control device.

2. "Air contaminant." Particulate matter, dust, fumes, gas, mist, smoke, or vapor, or any combination thereof produced by processes other than natural.

3. "Air contamination." The presence in the outdoor ambient air of one or more air contaminants which contribute to a condition of air pollution.

4. "Air contamination source." Any source at, from, or by reason of which there is emitted into the ambient air any air contaminant, regardless of who the person may be who owns or operates the building, premises, or other property in, at, or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

5. "Air contaminant point source." Any single point of emissions of any air contaminant such as from an individual machine or combustion device.

6. "Air pollution." The presence in the outdoor ambient air of one or more air contaminants in quantities, of characteristic, and of a duration which are materially injurious or can be reasonably expected to become materially injurious to human, plant, or animal life or to property, or which unreasonably interfere with enjoyment of life or use of property throughout the State or throughout such area of the State as shall be affected thereby.

7. "Ambient air." The encompassing atmosphere existing in the matter of space and to which life of this earth is adapted. For the purposes of these regulations, that portion of the atmosphere outside of buildings, stacks, and ducts.

8. "Atmosphere." The air that envelopes or surrounds the earth. This term is synonymous with ambient air.

9. "Commission." The Mississippi Commission on Environmental Quality.

10. "Excess (or excessive) emission." The operation of a facility in which the emission of one or more pollutants exceeds the applicable limit(s).

11. "Fly ash." Particulate matter capable of being gasborne or airborne or carried in the gas stream and consisting essentially of ash, fused ash, and/or unburned material.

12. "Ground level." Unless otherwise specified in sampling techniques, will be considered to be in the range of one to twenty (20) feet of ground level. For ambient sampling, it shall also be outside the boundaries of the property which contains the air pollution source.

13. "Incinerator." A combustion device specifically designed for the destruction by high temperature burning of solid, semi-solid, liquid or gaseous combustible wastes and from which the solid residues contain little or no combustibles.

14. "Modification." Any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant emitted by such facility or which results in the emission of any air pollutant not previously emitted, except that:

    (1) Routine maintenance, repair and replacement shall not be considered physical changes, and

    (2) An increase in the production rate or hours of operation shall not be considered a change in the method of operation, unless it is prohibited by a permit.

15. "Multiple chamber incinerator." Any article, machine, equipment, contrivance, structure, or any part thereof used to dispose of combustible refuse by burning, which consists of three or more refractory walls, interconnected by gas passage points or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned.

16. "Opacity." The degree to which emissions reduce the transmission of light and obscure the background.

17. "Open burning." The combustion of solid waste without (1) control of combustion air to maintain adequate temperature for efficient combustion, (2) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and (3) control of the emission of the combustion products.

18. "Ozone Action Day." A day(s) occurring between March 1 and October 31 of each year which the Executive Director has designated as being conducive to high rates of ozone formation for a named county(ies) among DeSoto, Hancock, Harrison, and Jackson Counties.

19. "Particulate matter." Any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.

20. "Particulate matter emissions." All finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by an applicable EPA Test Method, an equivalent or alternative method specified by the EPA, or by a test method specified in the approved State Implementation Plan.

21. "Person." The State or other agency, or institution thereof, any municipality, political subdivision, public or private corporation, individual, partnership, association, or other entity, and includes any officer or governing or managing body of any municipality, political subdivision, or public or private corporation, or the United States or any officer or employee thereof.

22. "$PM_{2.5}$" Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on Appendix L of

40 CFR 50 and designated in accordance with 40 CFR 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

23. "$PM_{2.5}$ emissions." Finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers, emitted to the ambient air as measured by an applicable EPA Test Method, an equivalent or alternate method specified by the EPA, or by a test method specified in the approved State Implementation Plan.

24. "PM_{10}." Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of 40 CFR 50 and designated in accordance with 40 CFR 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

25. "PM_{10} emissions." Finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers, emitted to the ambient air as measured by an applicable EPA Test Method, an equivalent or alternate method specified by the EPA, or by a test method specified in the approved State Implementation Plan.

26. "Process weight." The total weight of all materials introduced into a source operation including solid fuels and water. Excluded materials are as follows: Liquids and gases used solely as fuels or as a means of conveyance, liquids used as a pollutant removal medium, recycled process materials counted at initial introduction, and air introduced for purposes of combustion.

27. "Recreational area." Recreational area means:

    a. a national, state, county, or city designated park; or

    b. an outdoor recreational area, such as a golf course or swimming pool, owned by a city, county, or other public agency.

28. "Residential area." Residential area means:

    a. a group of 20 or more single family dwelling units on contiguous property and having an average density of two or more units per acre, or

    b. a group of 40 or more single family dwelling units on contiguous property and having an average density of one or more units per acre, or

    c. a subdivision containing at least 20 constructed houses, in which the subdivision plat is recorded in the chancery clerk's office of the appropriate county.

29. "Shutdown." The termination of operation of equipment. Relative to fuel-burning equipment, a shutdown shall be construed to occur only when a unit is taken from a fired to a non-fired state.

30. "Smoke." Small gasborne particles resulting from incomplete combustion and consisting predominantly, but not exclusively, of carbon, ash, and other combustible material.

31. "Soot." Aggregated particles consisting mainly of carbonaceous material.

32. "Soot blowing." The removal by mechanical means of accumulated carbon and/or ash from heat transfer surfaces of an operating fuel-burning unit.

33. "Standard conditions." Standard conditions for gas measurement and calculation will be a temperature of 60 degrees Fahrenheit and a pressure of 14.7 pounds per square inch absolute except where set by Applicable Rules and Regulations.

34. "Startup." The bringing into operation from a non-operative condition. Relative to fuel-burning equipment, a startup shall be construed to occur only when a unit is taken from a non-fired to a fired state.

35. "Total reduced sulfur, (TRS)" means hydrogen sulfide, mercaptans, dimethyl sulfide, and any other organic sulfides present.

36. "Total suspended particulate." Particulate matter as measured by the method described in Appendix B of 40 CFR 50.

37. "Upset." An unexpected and unplanned condition of operation of the facility in which equipment operates outside of the normal and planned parameters. An upset shall not include a condition of operation caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, operator error, or an intentional startup or shutdown of equipment.

SECTION 3. SPECIFIC CRITERIA FOR SOURCES OF PARTICULATE MATTER

1. Smoke

   (a) No person shall cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (b) & (c).

   (b) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

   (c) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

2. Equivalent Opacity. No person shall cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Section 3.1(a). This shall not apply to vision obscuration caused by uncombined water droplets.

3. General Nuisances. No person shall cause, permit, or allow the emission of particles, or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

   (a) No person shall cause or permit the handling or transporting or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

   (b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of this regulation, the Commission may order such corrected in a way that all air and gases or air and gasborne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

4. Fuel Burning

   (a) Fossil Fuel Burning. The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations shall be limited as follows:

      (1) Emissions from installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

      (2) Emissions from installations equal to or greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship

      $$E = 0.8808 * I^{-0.1667}$$

      where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour.

      (3) Emissions from installations equal to or greater than 10,000 million BTU per hour heat input shall not exceed 0.19 pounds per million BTU per hour heat input.

(b) Combination Boilers. Fuel burning operations utilizing a mixture of combustibles such as, but not limited to, fossil fuels plus bark, oil plus bark, or spent wood, or water treatment by-products sludge, to produce steam or heat water or any other heat transfer medium through indirect means may be allowed emission rates up to 0.30 grains per standard dry cubic foot.

5. Kraft Process Recovery Boilers. The emissions of particulate matter from a recovery furnace stack shall not exceed four (4) pounds per ton of equivalent air-dried Kraft pulp produced at any given time.

6. Manufacturing Processes.

(a) General. Except as otherwise specified, no person shall cause, permit, or allow the emission of particulate matter in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship

$$E = 4.1\ p^{0.67}$$

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour.

Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

(b) Kraft Pulping Mills. All mills existing prior to January 25, 1972, and not modified subsequent thereto shall comply with the following emission limits:

(1) Recovery Furnaces. The emission of particulate matter from recovery furnace stacks shall not exceed four pounds per ton of equivalent air-dried Kraft pulp.

(2) Lime Kilns. The emission of particulate matter from lime kilns shall not exceed one pound per ton of equivalent air-dried Kraft pulp.

(3) Smelt Tanks. The emission of particulate matter from smelt tanks shall not exceed one-half pound per ton of equivalent air-dried Kraft pulp.

7. Open Burning. The open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance; and permitted open burning at hazardous waste disposal facilities subject to regulation under Subtitle C of the Federal Resource Conservation and Recovery Act (RCRA).

(a) Fires set for the burning of agricultural wastes in the field and/or silvicultural wastes for forest management purposes must meet the following conditions.

(1) A Permit must be obtained from the Mississippi Forestry Commission.

(2) The open burning must occur within a time period allowing adequate diffusion of air pollutants as defined by the permit and the daily weather guides issued by the National Weather Forecast Office.

(3) Starter or auxiliary fuels may consist of dried vegetation, petroleum derived fuels of the gasoline, kerosene, or light fuel oil types (diesel), or a combination thereof. Use of or burning of other combustible material that causes excessive visible emission (e.g., rubber tires, plastic materials, etc.) is prohibited.

(b) Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(1) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(2) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.

(3) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

(c) Permitted open burning at a hazardous waste disposal facility subject to regulation under Subtitle C of RCRA is considered a stationary source of air pollution subject to Mississippi air emission permitting regulations.

(d) Ozone Action Days in DeSoto County, Hancock County, Harrison County and Jackson County. In DeSoto County, Hancock County, Harrison County, or Jackson County, open burning of agricultural wastes and silvicultural wastes described in 7(a) above, open burning of land-clearing debris described in 7(b) above, and permitted open burning at a hazardous waste disposal facility described in 7(c) above are prohibited in said county when an Ozone Action Day is declared by the Executive Director for the county(ies). Ozone Action Days shall be noticed the evening before on the MDEQ website at http://deq.state.ms.us, and/or with local news media. The

Mississippi Department of Transportation, Mississippi State Forestry Commission and local fire officials shall also be notified the evening before an Ozone Action Day.

8. Incineration.

(a) The maximum discharge of particulate matter from any incinerator, except those specified in paragraph (b) or (c) of this section, or those specified in Section 6 and Section 12 shall not exceed 0.2 grains per standard dry cubic foot of flue gas calculated to twelve percent (12%) carbon dioxide by volume for products of combustion. This limitation shall apply when the incinerator is operating at design capacity.

The carbon dioxide produced by combustion of any auxiliary fuels shall be excluded from the calculation to twelve percent (12%) carbon dioxide. After May 8, 1970, any new equipment shall be of the multiple chamber type or its equivalent for emission control. In critical areas where an installation is in close proximity to a residential area, an incinerator, except those specified in paragraph (b) of this section, or those specified in Section 6 and Section 12, shall be limited to emissions of 0.1 grains per standard dry cubic foot of flue gases calculated to twelve percent (12%) carbon dioxide by volume for products of combustion.

(b) The maximum discharge of smoke from the incineration of waste material resulting totally from the ginning of cotton shall not obscure an observer's view to a degree in excess of 40% opacity.

Start-up operations may produce emissions which exceed 40% opacity for up to fifteen minutes per start-up in any one hour not to exceed three (3) start-ups in any twenty-four (24) hour period.

After July 1, 1994, the emission limitation specified in paragraph (a) of this section shall also be applicable to cotton gin waste incinerators.

(c) The emission limitation in paragraph (a) above does not apply to afterburners, flares, thermal oxidizers, and other similar devices used to reduce the emissions of air pollutants from processes.

9. Sampling Ports.

(a) New Equipment: The owner or operator of any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere, shall have necessary sampling ports and ease of accessibility.

(b) Existing Equipment: The owner or operator of air pollution control equipment that is in existence prior to May 8, 1970, shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board.

10. More Restrictive Emission Limits. The Commission reserves the right to prescribe more stringent emission limits as it deems necessary in problem areas. The expansion, alteration, or establishment of a new industry may also result in the prescription of more stringent emission limits.

SECTION 4. SPECIFIC CRITERIA FOR SOURCES OF SULFUR COMPOUNDS

1. Sulfur Dioxide Emissions from Fuel Burning

   (a) The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

   (b) No person shall cause or permit the burning of fuel in any fuel burning equipment that results in an average emission of sulfur dioxide from any calendar year at a rate greater than was emitted by said fuel burning equipment for the corresponding calendar year 1970 unless otherwise authorized by the Commission. Installations under construction on January 25, 1972, are excluded from this requirement.

   (c) The maximum discharge of sulfur dioxide from any modified fuel burning unit whose generation capacity is less than 250 million BTU per hour and in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 2.4 pounds (measured as sulfur dioxide) per million BTU heat input. For the purposes of Section 4 of these regulations only, "modification" shall mean any physical change in an Air Contaminant Source which increases the amount of any air pollutant (to which a standard applies) emitted by such source or which results in the emission of any air pollutant (to which a standard applies) not previously emitted.

2. Sulfur Dioxide Emissions from Processes

   (a) Except as otherwise provided herein, no person shall cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 2,000 ppm (volume) from any process equipment in existence on January 25, 1972, or in excess of 500 ppm (volume) from any process equipment constructed after January 25, 1972. The 500 ppm (volume) requirement shall apply for equipment constructed after January 25, 1972 unless otherwise provided by the Commission.

   (b) Except as otherwise provided in paragraph 2(f)(1), no person shall cause or permit the emission of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet.

   Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than

1600°F for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide.

Sulfur dioxide concentration limitations in the gas streams resulting from such incineration or processing shall be determined for each emission point on a case-by-case basis to insure that the resulting maximum ground level concentration of sulfur dioxide as determined by acceptable method or methods will be in compliance with the National Ambient Air Quality Standards for sulfur dioxide. Testing to determine the productive capacity of new fields shall be exempted from emission limitation provisions of the paragraph of the regulation providing such testing has been previously negotiated and approved by the Mississippi Office of Pollution Control.

This regulation shall not apply to sulfur recovery plants.

(c) No person shall cause or permit acid mist emissions from sulfuric acid manufacturing plants to exceed 0.5 pounds/ton of acid produced. Sulfur trioxide emissions from sulfuric acid manufacturing plants shall not exceed 0.2 pounds/ton of acid produced.

(d) No person shall cause or permit emission of sulfur oxides, calculated as sulfur dioxide, from a sulfur recovery plant to exceed 0.12 pounds per pound of sulfur processed.

(e) No person shall cause or permit emissions of sulfur oxides, calculated as sulfur dioxide, from primary nonferrous smelters, in excess of the emission calculated as follows:

Copper smelters: $Y = 0.2X$
Zinc smelters: $Y = 0.564X^{0.85}$
Lead smelters: $Y = 0.98X^{0.77}$

Where X is the total sulfur fed to the smelter in pounds/hour and Y is the allowable sulfur emissions in pounds/hour.

(f) Kraft Pulp Mills

1. All mills existing prior to November 1, 1987, and not modified subsequent thereto, excluding mills or facilities subject to New Source Performance Standards, shall control the emission of total reduced sulfur compounds (TRS) so as to not exceed the emission limits set forth below:

   a. Straight recovery boiler systems - twenty (20) parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis, except that:

i. the International Paper Company, Vicksburg, Mississippi, shall be allowed 40 parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis,

ii. the International Paper Company, Natchez, Mississippi, Recovery Boilers 4 & 5, shall be allowed 40 parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis, and

iii. the Georgia-Pacific Corporation, Monticello, Mississippi, shall be allowed 40 parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis.

b. Lime kiln systems - twenty (20) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

c. Digester systems - five (5) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

d. Multiple effect evaporator systems - five (5) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

e. Condensate stripper systems - five (5) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

f. Smelt dissolving tank - 0.016 gram of TRS, expressed as hydrogen sulfide on a dry gas basis, per kilogram of black liquor solids (dry weight).

g. Equivalent control systems (controls for treating collected noncondensible gases in a manner equivalent to incineration in a lime kiln) - five (5) parts per million TRS, expressed as hydrogen sulfide on a dry gas basis, corrected to the actual oxygen content of the untreated gas stream, on a 12-hour average basis.

2. All mills, as defined above, shall, by February 1, 1988, demonstrate compliance with the TRS emission limits set forth above. Compliance demonstration for recovery boilers, lime kilns, smelt tanks, and equivalent control systems for collected noncondensible gases shall be by testing in accordance with EPA Test Method 16 or

16A and submittal of a stack test report. Compliance demonstration for digester systems, multiple effect evaporator systems and condensate stripper systems shall be by certification that these systems are fully connected to a noncondensible gas collection system followed by incineration in the lime kiln or equivalent control and testing of lime kiln or equivalent control as specified above. A compliance schedule may be submitted, as set forth below, on any or all systems not expected to comply with the emission limit and such submittal will negate the requirement for immediate compliance demonstration, as referenced above, on those systems.

Any mill defined above which, on November 1, 1987, is unable to comply with the emission limits set forth above, shall, within three (3) months thereafter, submit a schedule for attaining compliance with these limits. The compliance schedule shall not extend past November 1, 1990. Compliance with emission limits shall be demonstrated by the methods specified above, as appropriate, no later than the end of the compliance schedule. Compliance demonstration for recovery boilers, lime kilns, smelt tanks, and equivalent control systems for collected noncondensible gases shall be by testing in accordance with EPA Test Method 16 or 16A and submittal of a stack test report. Compliance demonstration for digester systems, multiple effect evaporator systems and condensate stripper systems shall be by certification that these systems are fully connected to a noncondensible gas collection system followed by incineration in the lime kiln or equivalent control and testing of lime kiln or equivalent control as specified above.

3. All mills, as defined above, shall monitor the emission of TRS and/or other gas constituents as described below:

   a. The TRS emission concentration in recovery boiler flue gas shall be monitored by either:

      i. A continuous monitoring device which meets the requirements of 40 CFR 60, Performance Specification 5; or

      ii. Performance of EPA Method 16 or 16A on no less than a (calendar) quarterly basis.

   b. The oxygen concentration in recovery boiler flue gas shall be continuously monitored by a device which meets the requirements of 40 CFR 60, Performance Specification 3.

   c. The TRS concentration in lime kiln flue gas shall be continuously monitored by a device which meets the requirements of 40 CFR 60, Performance Specification 5.

d. The oxygen concentration in lime kiln flue gas shall be continuously monitored by a device which meets the requirements of 40 CFR 60, Performance Specification 3.

All mills, as defined above, shall obtain the necessary continuous monitoring equipment and begin monitoring by November 1, 1988, or no later than the date of final compliance with the regulation, if compliance is not immediate. For mills choosing to use EPA Method 16 or 16A for recovery boiler monitoring, the necessary equipment and/or monitoring capability must be obtained by February 1, 1988. Also, when Method 16 or 16A is used, each successive quarter's testing shall be separated from the previous quarter's by a period of not less than sixty (60) days and prior notice to the Mississippi Office of Pollution Control of all testing shall be made.

All mills, as defined above, shall calculate and record, on a daily basis, the 12-hour average TRS concentration and O_2 concentration for the two consecutive operating periods of each operating day for both the recovery boiler (if continuously monitored) and lime kiln. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 continuous 1-hour average concentrations. Each 12-hour average TRS concentration shall be corrected to 10%, or 8% O_2, as appropriate to the emission limit, using the equation defined in 40 CFR 60.284(c)(3).

All mills, as defined above, shall report, for each calendar quarter, the periods of emissions which exceed the TRS limits specified above from the recovery boiler and lime kiln. The report shall specify the 12-hour period of each exceedance by time and date, the average emissions concentration for the period, and total number of 12-hour periods of mill operation during the quarter. The report shall also detail all outages of the monitoring devices by time and date. The report shall be due within forty-five (45) days following the end of the calendar quarter.

SECTION 5. SPECIFIC CRITERIA FOR SOURCES OF CHEMICAL EMISSIONS

1. Fluorides. No person shall allow the emission of fluorides into the ambient air in excess of four-tenths (0.4) pound per ton of P_2O_5 or equivalent. The allowable emission of fluorides shall be calculated by multiplying the unit emission, specified above, times the expressed design production capacity of the installation or plant.

2. Miscellaneous Chemical Emissions. No person shall cause, permit, or allow the emission of toxic, noxious, or deleterious substances, in addition to those considered in these regulations, into the ambient air in concentrations sufficient to affect human health and well-being, or unreasonably interfere with the enjoyment of property or

unreasonably and adversely affect plant or animal life beyond the boundaries of the property containing the air pollution source.

SECTION 6. NEW SOURCES

The provisions of this section apply to the owner or operator of any source listed herein, the construction or modification of which is commenced after the date of adoption of specific emission limitations applicable to such source.

1. Kraft Pulping Mills. All sources shall minimize gaseous and particulate emission by use of modern equipment, devices, maintenance, and operating practices in accordance with best current technology. In no case shall emissions exceed the limits set forth in any applicable Federal Standard of Performance for New Stationary Sources.

2. Other Limitations. The Mississippi Pollution Control Permit Board, in accordance with Commission Regulation APC-S-2, may require more stringent emission limitations which it deems necessary to meet applicable national primary and secondary ambient air quality standards, necessary to insure that ambient air pollution concentrations do not exceed ambient air increments or violate other requirements under Federal Prevention of Significant Deterioration (PSD) regulations promulgated by the U.S. Environmental Protection Agency as of August 23, 1989, pursuant to Section 160 through 169 of the Federal Clean Air Act as amended, or necessary to meet other Federal law or regulations enacted or promulgated subsequent to this regulation.

3. New Source Performance Standards. The Federal New Source Performance Standards are those duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 60, pursuant to Section 111 of the Federal Clean Air Act, as amended, and Consolidated Federal Air Rule provisions duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R Part 65. All such regulations promulgated by the U.S. Environmental Protection Agency as of ~~October 3, 2008~~September 13, 2010, are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such (except the word "Administrator" in said standards and general implementing regulations shall be replaced by the words "Executive Director" and the word "Agency" shall be replaced by the word "Department".) Hereafter, any facility subject to the Federal New Source Performance Standards shall comply with the emission limitations and other requirements of said standards.

4. Additional Requirements for Infectious Waste Incineration.

   a. Infectious waste incinerators which incinerate only those wastes generated on-site and are installed after December 9, 1993, shall comply with the following:

i. Daily records shall be kept of the times of operation, quantity of wastes incinerated and the temperature of the secondary chamber which temperature shall be monitored continuously. Records shall be maintained on hand for at least two (2) years.

ii. Only wastes generated on-site may be incinerated. Disposal of wastes from off-site shall cause the incinerator to be classified as a commercial incinerator and, therefore, subject to the requirements applicable to such units.

b. Commercial Incinerators. For purposes of this regulation, a commercial incinerator is any infectious waste incinerator that incinerates wastes other than or in addition to wastes generated on-site. A commercial infectious waste incinerator installed or modified after December 9, 1993, shall comply with the following:

i. A manifest system, including a detailed description of the waste collection and transportation system shall be employed. Daily records shall be kept of the times of incinerator operation, quantity of wastes incinerated and temperature of the secondary chamber which temperature shall be monitored continuously. Records shall be maintained on hand for at least two (2) years.

ii. Notwithstanding the requirements of Section 6.4.b.i and Section 12, the Permit Board may in any permit, in accordance with Regulation APC-S-2, establish more stringent requirements for emissions, operating parameters, monitoring, and recordkeeping subject to the provisions of Miss. Code Ann. 49-17-34(2) and (3).

SECTION 7. EXCEPTIONS

If any single source of emission or combination of sources of emissions is found to compromise the ambient air quality in the State, beyond the limitations set forth in any national primary and secondary ambient air quality standards now or hereafter established by the Administrator of the Environmental Protection Agency pursuant to the Clean Air Act as amended December 31, 1970, (Public Law 91-640) notwithstanding compliance with any maximum allowable emission rate allowed by this regulation, the Mississippi Commission on Environmental Quality may require such further reduction in emission from this or these sources as is necessary to obtain compliance with said national primary and secondary ambient air quality standards.

SECTION 8. PROVISIONS FOR HAZARDOUS AIR POLLUTANTS

1. Hazardous Air Pollutant Emission Standards

Hazardous air pollutant emission standards are National Emission Standards for Hazardous Air Pollutants duly promulgated by the U. S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 61 pursuant to Section 112 of the

Federal Clean Air Act, as amended; National Emission Standards for Hazardous Air Pollutants for Source Categories duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 63 pursuant to Section 112 of the Federal Clean Air Act, as amended; and Consolidated Federal Air Rule provisions duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 65. All such regulations promulgated by the U.S. Environmental Protection Agency as of ~~October 3, 2008~~September 13, 2010, are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such (except the word "Administrator" in said standards and general implementing regulations shall be replaced by the words "Executive Director" and the word "Agency" shall be replaced by the word "Department"). Hereafter, any facility subject to the National Emission Standards for Hazardous Air Pollutants and/or the National Emission Standards for Hazardous Air Pollutants for Source Categories shall comply with the emission limitations and other requirements of said standards.

2. National Emission Standards for Hazardous Air Pollutants; Compliance Extensions for Early Reductions.

The National Emission Standards for Hazardous Air Pollutants: Compliance Extensions for Early Reductions are regulations duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 63 pursuant to Section 112 of the Federal Clean Air Act, as amended. All such regulations promulgated by the U.S. Environmental Protection Agency are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such.

3. Case by Case Maximum Achievable Control Technology Requirements

The Mississippi Pollution Control Permit Board, in accordance with Commission Regulation APC-S-6, may require emissions limitations necessary to meet case by case maximum achievable control technology ("MACT") requirements in accordance with Section 112(j) and (g) of the Federal Act.

4. Mercury Emissions from Electric Utilities.

Mercury emissions from electric utilities are regulated in accordance with the Emission Guidelines for the Control of Mercury Emissions from Coal-Fired Electric Steam Generating Units promulgated by the U.S. Environmental Protection Agency in 40 CFR Part 60, Subpart HHHH, pursuant to Section 111 of the Federal Clean Air Act, as amended. All such regulations duly promulgated by the U.S. Environmental Protection Agency as of October 3, 2008, are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such, except for the changes noted in (a) and (b). Hereafter, any facility subject to the Federal Emission Guidelines shall comply with all applicable requirements of the regulation.

(a) The phrase "permitting authority" shall mean "Mississippi Environmental

Quality Permit Board" except when used in the definitions of "Allocate or allocation" and "Hg allowance" in 40 CFR 60.4102.

(b) The permitting authority will allocate mercury allowances in accordance with the procedures outlined in 40 CFR 60.4142 and by the dates specified in 40 CFR 60.4141.

SECTION 9. STACK HEIGHT CONSIDERATIONS

1. Definitions

(a) "Emission limitation" and "emission standard." A requirement established which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

(b) "Stack." Any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.

(c) "A stack in existence." The owner or operator had either:

(1) Begun, or caused to begin, a continuous program of physical on-site construction of the stack, or

(2) Entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time.

(d) "Dispersion technique." Any technique which attempts to affect the concentration of a pollutant in the ambient air by using that portion of a stack which exceeds good engineering practice stack height, varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant, or increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise. The preceding sentence does not include:

(1) The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream:

(2) The merging of exhaust gas streams where:

(i) The source owner or operator demonstrates that the facility was originally designed and constructed with such merged gas streams;

(ii) After July 8, 1985, such merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion from the definition of "dispersion techniques" shall apply only to the emission limitation for the pollutant affected by such change in operation; or

(iii) Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to the merging, the reviewing agency shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source owner or operator that merging was not significantly motivated by such intent, the reviewing agency shall deny credit for the effects of such merging in calculating the allowable emissions for the source;

(3) The use of smoke management in agricultural or silvicultural prescribed burning programs; or

(4) Episodic restrictions on residential woodburning and open burning; or

(5) Techniques under Paragraph 9.1(d) which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year.

(e) "Good engineering practice (GEP) stack height." The greater of:

(1) 65 meters measured from the ground-level elevation at the base of the stack;

(2) (i) For stacks in existence on January 12, 1979, and for which the owner or operator had obtained all applicable preconstruction permits or approvals required, $Hg = 2.5\ H$, provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation;

(ii) For all other stacks,

Hg = H + 1.5L, where

Hg = good engineering practice stack height, measured from the ground-level elevation at the base of the stack,

H = height of nearby structure(s) measured from the ground-level elevation at the base of the stack, and

L = lesser dimension (height or projected width) of nearby structure(s),

provided that the U. S. Environmental Protection Agency or the Commission may require the use of a field study or fluid model to verify GEP stack height for the source; or

(3) The height demonstrated by a fluid model or a field study approved by the U. S. Environmental Protection Agency or the Commission, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures, or nearby terrain features.

(f) "Nearby," As used in Paragraph 9.1(e)(2)(ii) is defined for a specific structure or terrain feature and means:

(1) For purposes of applying the formulae provided in Paragraph 9.1(e)(2) that distance up to five times the lesser of the height or the width dimension of a structure, but not greater than 0.8 km (1/2 mile), and

(2) For conducting demonstrations under Paragraph 9.1(e)(3) that distance not greater than 0.8 km (1/2 mile), except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to 10 times the maximum height (Ht) of the feature, not to exceed 2 miles if such feature achieves a height (ht) 0.8 km from the stack that is at least 40 percent of the GEP stack height determined by the formulae provided in Paragraph 9.1(e)(2)(ii) of this part or 26 meters, whichever is greater, as measured from the ground-level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

(g) "Excessive concentration." For the purpose of determining good engineering practice stack height under Paragraph 9.1(e)(3), excessive concentration means:

(1) For sources seeking credit for stack height exceeding that established under Paragraph 9.1(e)(2), a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and which contributes to a total concentration due to emissions from all sources that is greater than an ambient air quality standard. For sources subject to the Prevention of Significant Deterioration program, an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and greater than a prevention of significant deterioration increment. The allowable emission rate to be used in making demonstrations under this part shall be prescribed by the new source performance standard that is applicable to the source category unless the owner or operator demonstrates that this emission rate is infeasible. Where such demonstrations are approved by the U. S. Environmental Protection Agency or the Commission, an alternative emission rate shall be established in consultation with the source owner or operator.

(2) For sources seeking credit after October 11, 1983, for increases in existing stack heights up to the heights established under Paragraph 9.1(e)(2), either a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effects as provided in Paragraph 9.1(g)(1) of this section, except that the emission rate specified by the State implementation plan (or, in the absence of such a limit, the actual emission rate) shall be used, or the actual presence of a local nuisance caused by the existing stack, as determined by the Commission, and

(3) For sources seeking credit after January 12, 1979, for a stack height determined under Paragraph 9.1(e)(2) where the U. S. Environmental Protection Agency or the Commission requires the use of a field study or fluid model to verify GEP stack height, for sources seeking stack height credit after November 9, 1984, based on the aerodynamic influence of cooling towers, and for sources seeking stack height credit after December 31, 1970, based on the aerodynamic influence of structures not adequately represented by the equations in Paragraph 9.1(e)(2), a maximum ground-level

concentration due in whole or part to downwash, wakes, or eddy effects that is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

2. Stack Height Effect on Emission Limitations

(a) The degree of emission limitation required of any source for control of any air pollutants shall not be affected by so much of any source's stack height that exceeds good engineering practice (GEP) or by any other dispersion technique, except as provided in (b) of this paragraph.

(b) The provisions of Paragraph 9.2(a) shall not apply to stack heights in existence, or dispersion techniques implemented, prior to December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by sources, as defined in Section 111(a)(3) of the Clean Air Act, which were constructed, or reconstructed or for which major modifications, as defined pursuant to Section 6, New Sources, were carried out after December 31, 1970.

(c) If any existing source, after appropriate application of the preceding limitations and provisions, is found to exceed or potentially exceed an air quality standard or increment, as appropriate, when operating within previously established emission limitations, the emission limitations applicable to that source shall be modified so as to eliminate and prevent the exceedance.

(d) If any new source or source modification, after appropriate application of the preceding limitations and provisions, is predicted to exceed an air quality standard, or increment, as appropriate, when considered as operating under emission limitations consistent with other Applicable Rules and Regulations, the emission limitations considered shall be deemed inadequate and different emission limits, based on air quality considerations, shall be made applicable.

(e) If any source provides a field study or fluid modeling demonstration proposing a GEP stack height greater than that allowed by Paragraph 9.1(e)(1) and (2), then the public will be notified of the availability of the study and provided the opportunity for a public hearing before any new or revised emission limitation or permit is approved.

(f) The actual stack height used or proposed by a source shall not be restricted in any manner by requirements of this paragraph.

SECTION 10. PROVISIONS FOR UPSETS, STARTUPS, AND SHUTDOWNS

1. Upsets

(a) The occurrence of an upset as defined in Section 2 constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the source demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(1) an upset occurred and that the source can identify the cause(s) of the upset;

(2) the source was at the time being properly operated;

(3) during the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(4) the source submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and

(5) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the source seeking to establish the occurrence of an upset has the burden of proof.

(c) This provision is in addition to any upset provision contained in any applicable requirement.

2. Startups and Shutdowns

(a) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:

(1) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;

(2) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or

(3) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.

(b) In any enforcement proceeding, the source seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.

(c) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.

3. Maintenance.

(a) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the source can demonstrate the following:

(1) the source can identify the need for the maintenance;

(2) the source was at the time being properly operated;

(3) during the maintenance the source took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(4) the source submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and

(5) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the source seeking to establish the applicability of this section has the burden of proof.

(c) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply.

SECTION 11. SEVERABILITY

If any provision, section, subsection, sentence, clause or phrase of any of these regulations, or the application of same to any person or set of circumstances is for any reason challenged or held to be invalid or void, the validity of the remaining regulations and/or portions thereof or their application to other persons or sets of circumstances shall not be affected thereby.

SECTION 12. PROVISIONS FOR EXISTING HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS

1. Applicability.

(a) Except as provided in subparagraphs (b) through (h) of this paragraph, the designated or affected facility to which Section 12 applies is each individual hospital/medical/infectious waste incinerator (HMIWI) for which construction was commenced on or before June 20, 1996.

(b) A combustor is not subject to Section 12 of these regulations during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned, provided the owner or operator of the combustor:

(1) Notifies the Department of an exemption claim; and

(2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(c) Any co-fired combustor is not subject to Section 12 of these regulations if the owner or operator of the co-fired combustor:

(1) Notifies the Department of an exemption claim;

(2) Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

(3) Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(d) Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act is not subject to Section 12 of these regulations.

(e) Any combustor which meets the applicability requirements in standards or guidelines for certain municipal waste combustors under Subpart Cb, Ea, or Eb of 40 C.F.R. 60 is not subject to Section 12 of these regulations.

(f) Any pyrolysis unit is not subject to Section 12 of these regulations.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to Section 12 of these regulations.

(h) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with Section 12 of these regulations are not considered a modification and do not result in an existing HMIWI unit

becoming subject to the new source provisions under Section 6 of these regulations and Subpart Ec of 40 C.F.R. 60.

(i) Each existing HMIWI is subject to the permitting requirements in Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6. Each owner and operator of an existing HMIWI shall submit an application for a Title V permit to the Department by December 15, 1999.

(j) Beginning September 15, 2000, designated facilities subject to Section 12 of these regulations shall operate pursuant to a permit issued under Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6.

2. For the purpose of the requirements in Section 12 of these regulations, the following definitions apply:

(a) "Administrator of EPA" means the Administrator of the United States Environmental Protection Agency or his authorized representative.

(b) "Batch HMIWI" means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

(c) "Biologicals" means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

(d) "Blood Products" means any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

(e) "Body Fluids" means liquid emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

(f) "Bypass stack" means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(g) "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.

(h) "Co-fired combustor" means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition,

pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

(i) "Continuous emission monitoring system or CEMS" means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

(j) "Continuous HMIWI" means an HMIWI that is designed to allow waste charging and ash removal during combustion.

(k) "Dioxins/furans" means the combined emissions of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

(l) "Dry scrubber" means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

(m) "Fabric filter or baghouse" means an add-on air pollution control system that removes particulate matter (PM) and nonvaporous metals emissions by passing flue gas through filter bags.

(n) "Facilities manager" means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include Director of Facilities or Vice President of Support Services.

(o) "High-air phase" means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

(p) "Hospital" means any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

(q) "Hospital/medical/infectious waste incinerator or HMIWI or HMIWI unit" means any device that combusts any amount of hospital waste and/or medical/infectious waste.

(r) "Hospital/medical/infectious waste incinerator operator or HMIWI operator" means any person who operates, controls, or supervises the day-to-day operation of an HMIWI.

(s) "Hospital waste" means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(t) "Infectious agent" means any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

(u) "Intermittent HMIWI" means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

(v) "Large HMIWI" means:

(1) Except as provided in subparagraph (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more that 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more that 4,000 pounds per day.

(2) The following are not large HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is less than or equal to 4,000 pounds per day.

(w) "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)].

(x) "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. During periods

of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

(y) "Maximum charge rate" means:

(1) For continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(2) For batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(z) "Maximum design waste burning capacity" means:

(1) For intermittent and continuous HMIWI,

$$C = PV \times \frac{15{,}000}{8{,}500}$$

Where:

C = HMIWI capacity, lb/hr

PV = primary chamber volume, ft^3

15,000 = primary chamber heat release rate factor, $Btu/ft^3/hr$

8,500 = standard waste heating value, Btu/lb;

(2) For batch HMIWI,

$$C = PV \times \frac{4.5}{8}$$

Where:

C = HMIWI capacity, lb/hr

PV = primary chamber volume, ft^3

4.5 = waste density, lb/ft;

8 = typical hours of operation of a batch HMIWI, hours.

(aa) "Maximum fabric filter inlet temperature" means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(bb) "Maximum flue gas temperature" means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

(cc) "Medical/infectious waste" means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials, hazardous waste, and household waste identified, listed, or defined in Part 261 of Mississippi Hazardous Waste Management Regulations.

(1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

(iii) Items saturated and/or dripping with human blood; or

(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of

pharmaceuticals. Intravenous bags are also included in this category.

(4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

(5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

(6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

(7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

(dd) "Medium HMIWI" means:

(1) Except as provided in subparagraph (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

(2) The following are not medium HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

(ee) "Minimum dioxin/furan sorbent flow rate" means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(ff) "Minimum Hg sorbent flow rate" means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

(gg) "Minimum hydrogen chloride (HCl) sorbent flow rate" means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(hh) "Minimum horsepower or amperage" means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

(ii) "Minimum pressure drop across the wet scrubber" means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

(jj) "Minimum scrubber liquor flow rate" means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(kk) "Minimum scrubber liquor pH" means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(ll) "Minimum secondary chamber temperature" means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, or dioxin/furan emission limits.

(mm) "Modification or Modified HMIWI" means any change to an HMIWI unit after March 16, 1998, such that:

(1) The cumulative costs of the modifications, over the life of the unit, exceed 50 per centum of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or

(2) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under Section 129 or Section 111 of the Federal Clean Air Act.

(nn) "Operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

(oo) "Operation" means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

(pp) "Particulate matter or PM" means the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 or EPA Reference Method 29.

(qq) "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).

(rr) "Primary chamber" means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

(ss) "Pyrolysis" means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(tt) "Secondary chamber" means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

(uu) "Shutdown" means the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent HMIWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch HMIWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

(vv) "Small HMIWI" means:

(1) Except as provided in subparagraph (2);

(i) An HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

(2) The following are not small HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour.

(ii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day.

(ww) "Standard conditions" means a temperature of 20□C and a pressure of 101.3 kilopascals.

(xx) "Standard Metropolitan Statistical Area or SMSA" means any areas listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993.

(yy) "Startup" means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

(zz) "Wet scrubber" means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organic) and/or to absorb and neutralize acid gases.

3. Emission limits.

(a) Except as provided for in subparagraph (b), no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain stack emissions in excess of the limits presented in Table 1 of this paragraph.

(b) The emission limits in Table 2 shall apply to any small HMIWI which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (SMSA) and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste. The 2,000 lb/week limitation does not apply during performance tests.

(c) No owner or operator of an affected facility shall cause to be discharged into the atmosphere from the stack of that affected facility any gases that exhibit greater than 10 percent opacity (6-minute block average).

TABLE 1. EMISSION LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	Emission Limits		
		HMIWI Size		
		Small	Medium	Large
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	115 (0.05)	69 (0.03)	34 (0.015)
Carbon monoxide	Parts per million by volume	40	40	40
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)
Hydrogen chloride	Parts per million by volume or percent reduction	100 or 93%	100 or 93%	100 or 93%
Sulfur dioxide	Parts per million by volume	55	55	55
Nitrogen oxides	Parts per million by volume	250	250	250
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.16 (0.07) or 65%	0.16 (0.07) or 65%	0.16 (0.07) or 65%
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%

TABLE 2. EMISSION LIMITS FOR SMALL RURAL HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI Emission Limits
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	197 (0.086)
Carbon monoxide	Parts per million by volume	40
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	800 (350) or 15 (6.6)
Hydrogen chloride	Parts per million by volume	3100
Sulfur dioxide	Parts per million by volume	55
Nitrogen oxides	Parts per million by volume	250
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	10 (4.4)
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	4 (1.7)
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	7.5 (3.3)

4. Operator Training and Qualification Requirements.

(a) Compliance with the requirements of this paragraph shall occur no later than September 15, 2000.

(b) No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

(c) Operator training and qualification shall be obtained through a State-approved program that meets the requirements included in subparagraphs (d) through (k) of this paragraph.

(d) Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

(1) 24 hours of training on the following subjects:

(i) Environmental concerns, including pathogen destruction and types of emissions;

(ii) Basic combustion principles, including products of combustion;

(iii) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(iv) Combustion controls and monitoring;

(v) Operation of air pollution control equipment and factors affecting performance (if applicable);

(vi) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);

(vii) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

(viii) Actions to correct malfunctions or conditions that may lead to malfunction;

(ix) Bottom and fly ash characteristics and handling procedures;

(x) Applicable Federal, State, and local regulations;

(xi) Work safety procedures;

(xii) Pre-startup inspections; and

(xiii) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Reference material distributed to the attendees covering the course topics.

(e) Qualification shall be obtained by:

(1) Completion of a training course that satisfies the criteria under subparagraph (d) of this paragraph; and

(2) Either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

(f) Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

(g) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:

(1) Update of regulations;

(2) Incinerator operation, including startup and shutdown procedures;

(3) Inspection and maintenance;

(4) Responses to malfunctions or conditions that may lead to malfunction; and

(5) Discussion of operating problems encountered by attendees.

(h) A lapsed qualification shall be renewed by one of the following methods:

(1) For a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard annual refresher course described in subparagraph (g) of this paragraph above.

(2) For a lapse of 3 years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in subparagraph (d) of this paragraph above.

(i) The owner or operator of an affected facility shall maintain documentation at the facility that address the following:

(1) Summary of the applicable standards under Section 12 of these regulations;

(2) Description of basic combustion theory applicable to an HMIWI;

(3) Procedures for receiving, handling, and charging waste;

(4) HMIWI startup, shutdown, and malfunction procedures;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the HMIWI and associated air pollution control systems within the standards established under Section 12 of these regulations;

(7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

(8) Procedures for monitoring HMIWI emissions;

(9) Reporting and recordkeeping procedures; and

(10) Procedures for handling ash.

(j) The owner or operator of an affected facility shall establish a program for reviewing the information listed in subparagraph (i) of this paragraph annually with each HMIWI operator.

(1) The initial review of the information listed in subparagraph (i) of this paragraph shall be conducted by March 15, 2000, or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

(2) Subsequent reviews of the information listed in subparagraph (i) of this paragraph shall be conducted annually.

(k) The information listed in subparagraph (i) of this paragraph shall be kept in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the Department upon request.

5. Waste Management Guidelines.

The owner or operator of an affected facility shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction

Strategies for Health Care Facilities" shall be considered in the development of the waste management plan.

6. Inspection Guidelines.

(a) The requirements of this paragraph apply to any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations.

(b) No later than September 15, 2000 and annually thereafter (no more than 12 months following the previous annual equipment inspection) an equipment inspection shall be performed.

(1) At a minimum, an inspection shall include the following:

(i) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;

(ii) Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

(iii) Inspect hinges and door latches, and lubricate as necessary;

(iv) Inspect dampers, fans, and blowers for proper operation;

(v) Inspect HMIWI door and door gaskets for proper sealing;

(vi) Inspect motors for proper operation;

(vii) Inspect primary chamber refractory lining; clean and repair/replace lining as necessary;

(viii) Inspect incinerator shell for corrosion and/or hot spots;

(ix) Inspect secondary/tertiary chamber and stack, clean as necessary;

(x) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(xi) Visually inspect waste bed (grates), and repair/seal, as appropriate;

(xii) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

(xiii) Inspect air pollution control devices(s) for proper operation, if applicable;

(xiv) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(xv) Inspect bypass stack components;

(xvi) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(xvii) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Department establishing a date whereby all necessary repairs of the designated facility shall be completed.

7. Compliance and Performance Testing.

(a) The emission limits under paragraph 3 in Section 12 of these regulations shall apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup, shutdown, or malfunction.

(b) The owner or operator of an affected facility shall conduct an initial performance test in accordance with the performance test requirements contained in 40 C.F.R. 60.8 to determine compliance with the emission limits using the procedures and test methods listed in subparagraphs (b)(1) through (b)(11) of this paragraph. The use of the bypass stack during a performance test shall invalidate the performance test.

(1) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(2) The minimum sample time shall be 1 hour per test run unless otherwise indicated.

(3) EPA Reference Method 1 of Appendix A of 40 C.F.R. 60 shall be used to select the sampling location and number of traverse points.

(4) EPA Reference Method 3 or 3A of Appendix A of 40 C.F.R. 60 shall be used for gas composition analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A of Appendix A of 40 C.F.R. 60 shall be used simultaneously with each reference method.

(5) The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} \frac{(20.9 - 7)}{(20.9 - \%O_2)}$$

Where:

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

C_{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.

(6) EPA Reference Method 5 or 29 Appendix A of 40 C.F.R. 60 shall be used to measure the particulate matter emissions.

(7) EPA Reference method 9 of Appendix A of 40 C.F.R. 60 shall be used to measure stack opacity.

(8) EPA Reference Method 10 or 10B of Appendix A of 40 C.F.R. 60 shall be used to measure the CO emissions.

(9) EPA Reference Method 23 of Appendix A of 40 C.F.R. 60 shall be used to measure total dioxin/furan emissions. The minimum sample time shall be 4 hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans, under paragraph 3 in Section 12 of these regulations, the following procedures shall be used to determine compliance:

(i) Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23.

(ii) For each dioxin/furan congener measured in accordance with subparagraph (b)(9)(i) of this paragraph, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 3 in Section 12 of these regulations.

(iii) Sum the products calculated in accordance with subparagraph (b)(9)(ii) of this paragraph to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(10) EPA Reference Method 26 of Appendix A of 40 C.F.R. 60 shall be used to measure HCl emissions. If the affected facility has selected the percentage reduction standards for HCl under paragraph 3 in

$$\left(\%R_{HCl}\right) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

Section 12 of these regulations, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

Where:

($\%R_{HCl}$)= percentage reduction of HCl emissions achieved;

E_i = HCl emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

E_o = HCl emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(11) EPA Reference Method 29 of Appendix A of 40 C.F.R. 60 shall be used to measure Pb, Cd, and Hg emissions. If the affected facility has selected the percentage reduction standards for metals under paragraph 3 in Section 12 of these regulations, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$\left(\%R_{metal}\right) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

Where:

($\%R_{metal}$)= percentage reduction of metal emission (Ph, Cd, or Hg) achieved;

E_i = metal emission concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

E_o = metal emission concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

TABLE 3. 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

(c) Following the date on which the initial performance test is completed or is required to be completed under the performance test requirements contained in 40 C.F.R. 60.8, whichever date comes first, the owner or operator of an affected facility shall:

(1) Determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in subparagraph (b) of this paragraph.

(2) Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in subparagraph (b) of this paragraph. If all three performance tests over a 3-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for up to an additional 2 years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

(3) Facilities using a CEMS to demonstrate compliance with any of the emission limits under paragraph 3 in Section 12 of these regulations shall:

(i) Determine compliance with the appropriate emission limit(s) using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours (not including startup, shutdown, or malfunction).

(ii) Operate all CEMS in accordance with the applicable procedures under Appendices B and F of 40 C.F.R. 60.

(d) The owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall:

(1) Establish the appropriate maximum and minimum operating parameters, indicated in Table 4 of Section 12 of these regulations for each control system, as site specific operating parameters during the initial performance test to determine compliance with the emission limits; and

(2) Following the date on which the initial performance test is completed or is required to be completed under the performance test requirements contained in 40 C.F.R. 60.8, whichever date comes first, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 4 in Section 12 of these regulations and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

(e) Except as provided in subparagraph (h) of this paragraph, for affected facilities equipped with a dry scrubber followed by a fabric filter:

(1) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(f) Except as provided in subparagraph (h) of this paragraph, for affected facilities equipped with a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured

on a 3-hour rolling average) simultaneously shall constitute a violation of the PM emission limit.

(2) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(3) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(5) Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(6) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(g) Except as provided in subparagraph (h) of this paragraph, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(h) The owner or operator of an affected facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under subparagraph (e), (f), or (g) of this paragraph.

(i) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under paragraph 3 in Section 12 of these regulations shall petition the Administrator for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the Administrator.

(j) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Department may request a repeat performance test at any time.

(k) Any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations shall meet the following compliance and performance testing requirements:

(1) Conduct the performance testing requirements in subparagraphs (a), (b)(1) through (b)(9), (b)(11) (mercury only), and (c)(1) of this paragraph. The 2,000 lb/week limitation does not apply during performance tests.

(2) Establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits.

(3) Following the date on which the initial performance test is completed or is required to be completed under the performance test requirements contained in 40 C.F.R. 60.8, whichever date comes first, ensure that the designated facility does not operate above the

maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, or malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s).

(4) Except as provided in subparagraph (k)(5) of this paragraph below, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(5) The owner or operator of a designated facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph must be conducted using the identical operating parameters that indicated a violation under subparagraph (k)(4), of this paragraph above.

8. Monitoring.

(a) The owner or operator of an affected facility shall install, calibrate (to manufacturer's specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 4 in Section 12 of these regulations such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 4 in Section 12 of these regulations at all times except during periods of startup and shutdown.

(b) The owner of operator of an affected facility shall install, calibrate (to manufacturer's specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

(c) The owner or operator of an affected facility using something other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under paragraph 3 in Section 12 of these regulations shall install, calibrate (to the manufacturer's specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to subparagraph 7(i) in Section 12 of these regulations.

(d) The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid

monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

(e) Any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations shall meet the following monitoring requirements:

(1) Install, calibrate (to manufacturer's specifications), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation.

(2) Install, calibrate (to manufacturer's specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

(3) The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hour per day and for 90 percent of the operating hour per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

TABLE 4. OPERATING PARAMETERS TO BE MONITORED AND MINIMUM MEASUREMENT AND RECORDING FREQUENCIES

Operating Parameters to be Monitored	**Minimum Frequency**		**Control System**		
	Data Measurement	**Data Recording**	**Dry Scrubber followed by Fabric Filter**	**Wet Scrubber**	**Dry Scrubber followed by Fabric Filter and Wet Scrubber**
Maximum operating parameters:					
Maximum charge rate	Continuous	1 x hour	X	X	X
Maximum fabric filter inlet temperature	Continuous	1 x minute	X		X
Maximum flue gas temperature	Continuous	1 x minute	X	X	
Minimum operating parameters:					
Minimum secondary chamber temperature	Continuous	1 x minute	X	X	X
Minimum dioxin/furan sorbent flow rate	Hourly	1 x hour	X		X
Minimum HCl sorbent flow rate	Hourly	1 x hour	X		X
Minimum mercury (Hg) sorbent flow rate	Hourly	1 x hour	X		X
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	Continuous	1 x minute		X	X
Minimum scrubber liquor flow rate	Continuous	1 x minute		X	X
Minimum scrubber liquor pH	Continuous	1 x minute		X	X

9. Reporting and Recordkeeping Requirements.

(a) The owner or operator of an affected facility shall maintain the following information (as applicable) for a period of at least 5 years:

(1) Calendar date of each record;

(2) Records of the following data:

(i) Concentrations of any pollutant listed in paragraph 3 in Section 12 of these regulations or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

(ii) Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

(iii) HMIWI charge dates, times, and weights and hourly charge rates;

(iv) Fabric filter inlet temperatures during each minute of operation, as applicable;

(v) Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

(vi) Amount and type of Hg sorbent used during each hour of operation, as applicable;

(vii) Amount and type of HCl sorbent used during each hour of operation, as applicable;

(viii) Secondary chamber temperatures recorded during each minute of operation;

(ix) Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

(x) Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

(xi) Pressure drop across the wet scrubber system during each minute of operation, as applicable;

(xii) Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

(xiii) pH at the inlet to the wet scrubber during each minute of operation, as applicable;

(xiv) Records indicating use of the bypass stack, including dates, times, and durations; and

(xv) For affected facilities complying with subparagraphs 7(i) and 8(c) in Section 12 of these regulations, the owner or operator shall maintain all operating parameter data collected.

(3) Identification of calendar days for which data on emission rates or operating parameters specified under subparagraph (a)(2) of this paragraph have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

(4) Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.

(5) Identification of calendar days for which data on emission rates or operating parameters specified under subparagraph (a)(2) of this paragraph exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, 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 parameters, as applicable.

(7) Records showing the names of HMIWI operators who have completed review of the information in subparagraph 4(i) as required by subparagraph 4(j), including the date of the initial review and all subsequent annual reviews;

(8) Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

(9) Records showing the names of the HMIWI operators who have met the criteria for qualification under paragraph 4 in Section 12 of these regulations and the dates of their qualification; and

(10) Records of calibration of any monitoring devices as required under subparagraphs 8(a), (b), and (c) in Section 12 of these regulations.

(b) The owner or operator of an affected facility shall submit the information specified in subparagraphs (b)(1) through (b)(3) of this paragraph no later

than 60 days following the initial performance test. All reports shall be signed by the facilities manager.

(1) The initial performance test data as recorded under subparagraphs 7(b)(1) through (b)(11), as applicable.

(2) The values for the site-specific operating parameters established pursuant to subparagraphs 7(d) or (i), as applicable.

(3) The waste management plan as specified in paragraph 5 in Section 12 of these regulations.

(c) An annual report shall be submitted 1 year following the submission of the information in subparagraph (b) of this paragraph and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements in Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in subparagraphs (c)(1) through (c)(8) of this paragraph. All reports shall be signed by the facilities manager.

(1) The values for the site-specific operating parameters established pursuant to subparagraph 7(d) or (i), as applicable.

(2) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to subparagraph 7(d) or (i), as applicable.

(3) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to subparagraph 7(d) or (i) for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.

(4) Any information recorded under subparagraphs (a)(3) through (a)(5) of this paragraph for the calendar year being reported.

(5) Any information recorded under subparagraphs (a)(3) through (a)(5) of this paragraph for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.

(6) If a performance test was conducted during the reporting period, the results of that test.

(7) If no exceedances or malfunctions were reported under subparagraphs (a)(3) through (a)(5) of this paragraph for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

(8) Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(d) The owner or operator of an affected facility shall submit semiannual reports containing any information recorded under subparagraphs (a)(3) through (a)(5) of this paragraph no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of information in subparagraph (b) of this paragraph. Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager.

(e) All records specified under subparagraph (a) of this paragraph shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Department.

(f) Any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations shall meet the following reporting and recordkeeping requirements:

(1) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the Department; and

(2) Submit an annual report containing information recorded under subparagraph (f)(1) above no later than 60 days following the year in which data were collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report (once the unit is subject to permitting requirements in Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6, the owner or operator must submit these reports semiannually). The report shall be signed by the facilities manager.

10. Compliance Schedules.

(a) Except as provided in subparagraph (b), designated or affected facilities to which the provisions in Section 12 of these regulations applies (as defined in paragraph 1) shall comply with all requirements in Section 12 of these regulations on or before September 15, 2000, regardless of whether the Department has identified a designated or affected facility in the State Plan inventory required by Subpart B of 40 C.F.R. 60.

(b) For designated facilities planning to install the necessary air pollution control equipment, the Department may allow compliance on or before September

15, 2002, but as expeditiously as possible. No later than December 15, 1999, these facilities shall petition the Department in writing, as outlined in subparagraphs (1) through (2) below. Under no circumstances can compliance with the provisions in Section 12 of these regulations extend beyond September 15, 2002.

(1) Documentation of the analyses undertaken to support the need for an extension, including an explanation of why September 15, 2002, is sufficient time to comply while September 15, 2000, is not sufficient. The documentation shall also include an evaluation of the option to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

(2) Documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the requirements in Section 12 of these regulations, as defined in subparagraphs (i) through (x) below:

(i) Date for submitting a petition for site specific operating parameters under subparagraph 7(i) in Section 12 of these regulations;

(ii) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(iii) Date for obtaining design drawings of the air pollution control device(s);

(iv) Date for ordering the air pollution control device(s);

(v) Date for obtaining the major components of the air pollution control device(s);

(vi) Date for initiation of site preparation for installation of the air pollution control device(s);

(vii) Date for initiation of installation of the air pollution control device(s);

(viii) Date for initial startup of the air pollution control device(s); and

(ix) Date for initial compliance test(s) of the air pollution control device(s);

(x) Date for final compliance.

(c) Designated facilities planning to shut down permanently to demonstrate compliance with subparagraph (a) of this paragraph shall notify the Department in writing, no later than December 15, 1999. The notification shall include documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the requirements in Section 12 of these regulations, as defined in subparagraphs (1) through (6) below:

(1) Date for designated facility plan for shut down;

(2) Date for contract with the appropriate vendor (off-site hauler or alternative waste treatment equipment);

(3) Date to begin construction of alternative waste treatment equipment (if applicable);

(4) Date for complete installation of alternative waste treatment equipment (if applicable);

(5) Date for shut down of incinerator;

(6) Date for dismantling incinerator.

(d) Department Actions on Petitions. On receipt of a petition, the Department will authorize one of the following actions, as it shall determine:

(i) The petition may be dismissed if the Department determines that it is not adequate under subparagraph (b) of this paragraph.

(ii) The Department may grant the request of the petition, as petitioned or by imposing such conditions as the requirements in Section 12 of these regulations may require in the Title V permit, including the establishment of schedules of compliance.

(iii) The Department may deny the petition. If such a denial is made, the Department shall notify the petitioner in writing, state the reasons for denial and outline procedures for appeal.

(e) Termination Procedures. Any petition granted by the Department may be terminated by the Department whenever the Department finds, after an opportunity for the petitioner to demonstrate compliance and after notice and an opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the petition or that operation under the petition does not meet the minimum requirements established by State and Federal laws and regulations or is unreasonably threatening the public health.

SECTION 13. PROVISIONS FOR EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATION UNITS

1. Emission Standards. Provisions under this paragraph that apply to existing commercial and industrial solid waste incineration (CISWI) units are the requirements that are contained in 40 CFR 60.2575 through 60.2875. All such requirements are hereby adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such.

2. Applicability. The requirements of Section 13 shall apply to each existing commercial and industrial solid waste incineration unit that commenced construction on or before November 30, 1999 and meets the following criteria:

   (a) Commercial and industrial solid waste incineration (CISWI) unit means any combustion device that combusts commercial and industrial waste. 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 and (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.

   (b) 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.

   (c) 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 (42 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).

   (d) Solid waste combustion units are exempt from the requirements of Section 13 as described and set forth below:

(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 40 CFR 60.2875 are not subject to the requirements of Section 13 if the owner or operator of the CISWI unit meets the two requirements specified in (1)(i) and (ii) of this paragraph.

(i) Notify the Executive 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 40 CFR 60.2875 are not subject to the requirements of Section 13 if the owner or operator of the CISWI unit meets the two requirements specified in (2)(i) and (ii) of this paragraph.

(i) Notify the Executive 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 (3)(i) or (ii) of this paragraph.

(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 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 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 owner or operator of the CISWI unit meets the two requirements in (3) (ii) (A) and (B) of this paragraph.

(A) Notify the Executive 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 Ca (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(5) Small power production facilities. Units that meet the three requirements specified in (5)(i) through (iii) of this paragraph.

(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 owner or operator of the CISWI unit notifies the Executive Director that the unit meets all of these criteria.

(6) Co-generation facilities. Units that meet the three requirements specified in (6)(i) through (iii) of this paragraph.

(i) The unit qualifies as a co-generation 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 owner or operator of the CISWI unit notifies the Executive Director that the unit meets all of these criteria.

(7) Hazardous waste combustion units. Units that meet either of the two criteria specified in (7)(i) or (ii) of this paragraph.

(i) Units for which the owner or operator is required to get a permit under section 3005 of the Solid Waste Disposal Act.

(ii) Units regulated under Subpart EEE of 40 CFR Part 63 (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 (9)(i) through (iii) of this paragraph are only required to meet the requirements under "Air Curtain Incinerators" 40 CFR 60.2810 through 60.2870.

(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 40 CFR 60.2875)

(11) Rack, part, and drum reclamation units. (See 40 CFR 60.2875)

(12) Cement kilns. Kilns regulated under Subpart LLL of 40 CFR Part 63 (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(13) Sewage sludge incinerators. Incineration units regulated under Subpart O of 40 CFR Part 60 (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 (14)(i) through (vii) of this paragraph 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.

3. Schedule for compliance.

(a) Except as provided in sub-paragraph (b), each designated or affected facility to which the provisions of Section 13 are applicable, shall comply with the emission standards and requirements set forth in Section 13 not later than December 1, 2003.

(b) Any designated or affected facility that does not comply with sub-paragraph (a) shall be subject to the increments of progress requirements set forth in 40 CFR 60.2575 through 60.2605 and shall comply as follows:

(1) Increment 1 - Submit final control plan - April 1, 2003

(2) Increment 2 - Achieve final compliance - December 1, 2005

4. Permitting requirements. Each CISWI unit affected by the provisions of Section 13 shall be subject to the permitting requirements of Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6; and the owner and/or operator of the affected facility shall submit the necessary permit application not later than April 1, 2003. Beginning December 1, 2003, affected

facilities shall only operate pursuant to authorization, or a permit issued, pursuant to the operating permit regulations referenced herein.

5. Clarifications of terminology. Clarification for certain terms contained in the requirements adopted by reference into Section 13 are as follows:

   (a) The term "Administrator", as it relates to the State Air Pollution Control Agency in 40 CFR 60.2575 through 60.2875, means the "Executive Director" of the Mississippi Department of Environmental Quality.

   (b) The term "You" in 40 CFR 60.2575 through 60.2875 means the owner or operator of a CISWI unit.

   (c) The term "State plan" in 40 CFR 60.2575 through 60.2875 means the plan (including the requirements set forth in Section 13) submitted to the U.S. Environmental Protection Agency that implement the emission guidelines contained in 40 CFR 60, Subpart DDDD.

SECTION 14. PROVISIONS FOR THE CLEAN AIR INTERSTATE RULE.

1. The provisions of this paragraph apply to Electric Generating Units subject to the Clean Air Interstate Rule (CAIR) as set forth in 40 CFR 51.123, 40 CFR 51.124, and 40 CFR 96.102 through 40 CFR 96.388 as amended and promulgated by the U.S. Environmental Protection Agency as of October 3, 2008. All such requirements are incorporated herein and adopted by reference by the Mississippi Commission on Environmental Quality as official regulations of the State of Mississippi and shall hereafter be enforceable as such except as follows:

   (a) The term "permitting authority" shall mean the "Mississippi Environmental Quality Permit Board" except when used in the definitions of "Allocate or allocation" and "CAIR NOx allowance" in 40 CFR 96.102, the definitions of "Allocate or allocation" and "CAIR SO2 allowance" in 40 CFR 96.202, and the definitions of "Allocate or allocation" and "CAIR NOx Ozone Season allowance" in 40 CFR 96.302.

   (b) Unit specific nitrogen oxides (NO_x) annual and ozone season allowances shall be established by the Commission in accordance with the procedures outlined in 40 CFR 96.142 and 40 CFR 96.342 and will be assigned to each unit by the dates specified in 40 CFR 96.141 and 40 CFR 96.341.

MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

"AIR EMISSION REGULATIONS FOR THE PREVENTION, ABATEMENT, AND CONTROL OF AIR CONTAMINANTS"

APC-S-1

Proposed Amendments
Public Hearing Date: October 13, 2010

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MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

AIR EMISSION REGULATIONS FOR THE PREVENTION, ABATEMENT, AND CONTROL OF AIR CONTAMINANTS

APC-S-1

Proposed Amendments

SECTION 1. GENERAL

1. Authority. Pursuant to the authority granted by Miss. Code Ann. 49-17-17, the following regulations are adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants being discharged into the atmosphere as particulates, smoke, fly ash, solvents, and other chemicals or combinations thereof.

2. Except as otherwise noted herein, stack emissions testing for demonstration of compliance with the regulations herein may be performed in accordance with the Test Methods of the U. S. Environmental Protection Agency in place at the time testing is performed or as otherwise approved by the staff of the Mississippi Office of Pollution Control and the U. S. Environmental Protection Agency.

   Notwithstanding this or any other provision in these or any other regulations, the owner or operator may use any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, for the purpose of submitting compliance certifications.

   Notwithstanding any other provision in these or any other air pollution control regulations, any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, can be used to establish whether or not a person has violated or is in violation of any standard or applicable requirement.

3. In the event of a conflict between any of the requirements of these regulations and/or applicable requirements of any other regulation or law, the more stringent requirements shall be applied.

SECTION 2. DEFINITIONS

The terms used in the regulations shall, unless the context otherwise requires, have the following meanings:

1. "Air cleaning device." Any method, process or equipment which removes, reduces or renders less noxious air contaminants discharged into the atmosphere. This term is synonymous with air pollution control device.

2. "Air contaminant." Particulate matter, dust, fumes, gas, mist, smoke, or vapor, or any combination thereof produced by processes other than natural.

3. "Air contamination." The presence in the outdoor ambient air of one or more air contaminants which contribute to a condition of air pollution.

4. "Air contamination source." Any source at, from, or by reason of which there is emitted into the ambient air any air contaminant, regardless of who the person may be who owns or operates the building, premises, or other property in, at, or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

5. "Air contaminant point source." Any single point of emissions of any air contaminant such as from an individual machine or combustion device.

6. "Air pollution." The presence in the outdoor ambient air of one or more air contaminants in quantities, of characteristic, and of a duration which are materially injurious or can be reasonably expected to become materially injurious to human, plant, or animal life or to property, or which unreasonably interfere with enjoyment of life or use of property throughout the State or throughout such area of the State as shall be affected thereby.

7. "Ambient air." The encompassing atmosphere existing in the matter of space and to which life of this earth is adapted. For the purposes of these regulations, that portion of the atmosphere outside of buildings, stacks, and ducts.

8. "Atmosphere." The air that envelopes or surrounds the earth. This term is synonymous with ambient air.

9. "Commission." The Mississippi Commission on Environmental Quality.

10. "Excess (or excessive) emission." The operation of a facility in which the emission of one or more pollutants exceeds the applicable limit(s).

11. "Fly ash." Particulate matter capable of being gasborne or airborne or carried in the gas stream and consisting essentially of ash, fused ash, and/or unburned material.

12. "Ground level." Unless otherwise specified in sampling techniques, will be considered to be in the range of one to twenty (20) feet of ground level. For ambient sampling, it shall also be outside the boundaries of the property which contains the air pollution source.

13. "Incinerator." A combustion device specifically designed for the destruction by high temperature burning of solid, semi-solid, liquid or gaseous combustible wastes and from which the solid residues contain little or no combustibles.

14. "Modification." Any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant emitted by such facility or which results in the emission of any air pollutant not previously emitted, except that:

    (1) Routine maintenance, repair and replacement shall not be considered physical changes, and

    (2) An increase in the production rate or hours of operation shall not be considered a change in the method of operation, unless it is prohibited by a permit.

15. "Multiple chamber incinerator." Any article, machine, equipment, contrivance, structure, or any part thereof used to dispose of combustible refuse by burning, which consists of three or more refractory walls, interconnected by gas passage points or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned.

16. "Opacity." The degree to which emissions reduce the transmission of light and obscure the background.

17. "Open burning." The combustion of solid waste without (1) control of combustion air to maintain adequate temperature for efficient combustion, (2) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and (3) control of the emission of the combustion products.

18. "Ozone Action Day." A day(s) occurring between March 1 and October 31 of each year which the Executive Director has designated as being conducive to high rates of ozone formation for a named county(ies) among DeSoto, Hancock, Harrison, and Jackson Counties.

19. "Particulate matter." Any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.

20. "Particulate matter emissions." All finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by an applicable EPA Test Method, an equivalent or alternative method specified by the EPA, or by a test method specified in the approved State Implementation Plan.

21. "Person." The State or other agency, or institution thereof, any municipality, political subdivision, public or private corporation, individual, partnership, association, or other entity, and includes any officer or governing or managing body of any municipality, political subdivision, or public or private corporation, or the United States or any officer or employee thereof.

22. "$PM_{2.5}$" Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on Appendix L of

40 CFR 50 and designated in accordance with 40 CFR 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

23. "$PM_{2.5}$ emissions." Finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers, emitted to the ambient air as measured by an applicable EPA Test Method, an equivalent or alternate method specified by the EPA, or by a test method specified in the approved State Implementation Plan.

24. "PM_{10}." Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of 40 CFR 50 and designated in accordance with 40 CFR 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

25. "PM_{10} emissions." Finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers, emitted to the ambient air as measured by an applicable EPA Test Method, an equivalent or alternate method specified by the EPA, or by a test method specified in the approved State Implementation Plan.

26. "Process weight." The total weight of all materials introduced into a source operation including solid fuels and water. Excluded materials are as follows: Liquids and gases used solely as fuels or as a means of conveyance, liquids used as a pollutant removal medium, recycled process materials counted at initial introduction, and air introduced for purposes of combustion.

27. "Recreational area." Recreational area means:

    a. a national, state, county, or city designated park; or

    b. an outdoor recreational area, such as a golf course or swimming pool, owned by a city, county, or other public agency.

28. "Residential area." Residential area means:

    a. a group of 20 or more single family dwelling units on contiguous property and having an average density of two or more units per acre, or

    b. a group of 40 or more single family dwelling units on contiguous property and having an average density of one or more units per acre, or

    c. a subdivision containing at least 20 constructed houses, in which the subdivision plat is recorded in the chancery clerk's office of the appropriate county.

29. "Shutdown." The termination of operation of equipment. Relative to fuel-burning equipment, a shutdown shall be construed to occur only when a unit is taken from a fired to a non-fired state.

30. "Smoke." Small gasborne particles resulting from incomplete combustion and consisting predominantly, but not exclusively, of carbon, ash, and other combustible material.

31. "Soot." Aggregated particles consisting mainly of carbonaceous material.

32. "Soot blowing." The removal by mechanical means of accumulated carbon and/or ash from heat transfer surfaces of an operating fuel-burning unit.

33. "Standard conditions." Standard conditions for gas measurement and calculation will be a temperature of 60 degrees Fahrenheit and a pressure of 14.7 pounds per square inch absolute except where set by Applicable Rules and Regulations.

34. "Startup." The bringing into operation from a non-operative condition. Relative to fuel-burning equipment, a startup shall be construed to occur only when a unit is taken from a non-fired to a fired state.

35. "Total reduced sulfur, (TRS)" means hydrogen sulfide, mercaptans, dimethyl sulfide, and any other organic sulfides present.

36. "Total suspended particulate." Particulate matter as measured by the method described in Appendix B of 40 CFR 50.

37. "Upset." An unexpected and unplanned condition of operation of the facility in which equipment operates outside of the normal and planned parameters. An upset shall not include a condition of operation caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, operator error, or an intentional startup or shutdown of equipment.

SECTION 3. SPECIFIC CRITERIA FOR SOURCES OF PARTICULATE MATTER

1. Smoke

   (a) No person shall cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (b) & (c).

   (b) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

   (c) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

2. Equivalent Opacity. No person shall cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Section 3.1(a). This shall not apply to vision obscuration caused by uncombined water droplets.

3. General Nuisances. No person shall cause, permit, or allow the emission of particles, or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

   (a) No person shall cause or permit the handling or transporting or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

   (b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of this regulation, the Commission may order such corrected in a way that all air and gases or air and gasborne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

4. Fuel Burning

   (a) Fossil Fuel Burning. The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations shall be limited as follows:

      (1) Emissions from installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

      (2) Emissions from installations equal to or greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship

      $$E = 0.8808 * I^{-0.1667}$$

      where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour.

      (3) Emissions from installations equal to or greater than 10,000 million BTU per hour heat input shall not exceed 0.19 pounds per million BTU per hour heat input.

(b) Combination Boilers. Fuel burning operations utilizing a mixture of combustibles such as, but not limited to, fossil fuels plus bark, oil plus bark, or spent wood, or water treatment by-products sludge, to produce steam or heat water or any other heat transfer medium through indirect means may be allowed emission rates up to 0.30 grains per standard dry cubic foot.

5. Kraft Process Recovery Boilers. The emissions of particulate matter from a recovery furnace stack shall not exceed four (4) pounds per ton of equivalent air-dried Kraft pulp produced at any given time.

6. Manufacturing Processes.

(a) General. Except as otherwise specified, no person shall cause, permit, or allow the emission of particulate matter in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship

$$E = 4.1\ p^{0.67}$$

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour.

Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

(b) Kraft Pulping Mills. All mills existing prior to January 25, 1972, and not modified subsequent thereto shall comply with the following emission limits:

(1) Recovery Furnaces. The emission of particulate matter from recovery furnace stacks shall not exceed four pounds per ton of equivalent air-dried Kraft pulp.

(2) Lime Kilns. The emission of particulate matter from lime kilns shall not exceed one pound per ton of equivalent air-dried Kraft pulp.

(3) Smelt Tanks. The emission of particulate matter from smelt tanks shall not exceed one-half pound per ton of equivalent air-dried Kraft pulp.

7. Open Burning. The open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance; and permitted open burning at hazardous waste disposal facilities subject to regulation under Subtitle C of the Federal Resource Conservation and Recovery Act (RCRA).

(a) Fires set for the burning of agricultural wastes in the field and/or silvicultural wastes for forest management purposes must meet the following conditions.

(1) A Permit must be obtained from the Mississippi Forestry Commission.

(2) The open burning must occur within a time period allowing adequate diffusion of air pollutants as defined by the permit and the daily weather guides issued by the National Weather Forecast Office.

(3) Starter or auxiliary fuels may consist of dried vegetation, petroleum derived fuels of the gasoline, kerosene, or light fuel oil types (diesel), or a combination thereof. Use of or burning of other combustible material that causes excessive visible emission (e.g., rubber tires, plastic materials, etc.) is prohibited.

(b) Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(1) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(2) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.

(3) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

(c) Permitted open burning at a hazardous waste disposal facility subject to regulation under Subtitle C of RCRA is considered a stationary source of air pollution subject to Mississippi air emission permitting regulations.

(d) Ozone Action Days in DeSoto County, Hancock County, Harrison County and Jackson County. In DeSoto County, Hancock County, Harrison County, or Jackson County, open burning of agricultural wastes and silvicultural wastes described in 7(a) above, open burning of land-clearing debris described in 7(b) above, and permitted open burning at a hazardous waste disposal facility described in 7(c) above are prohibited in said county when an Ozone Action Day is declared by the Executive Director for the county(ies). Ozone Action Days shall be noticed the evening before on the MDEQ website at http://deq.state.ms.us, and/or with local news media. The

Mississippi Department of Transportation, Mississippi State Forestry Commission and local fire officials shall also be notified the evening before an Ozone Action Day.

8. Incineration.

(a) The maximum discharge of particulate matter from any incinerator, except those specified in paragraph (b) or (c) of this section, or those specified in Section 6 and Section 12 shall not exceed 0.2 grains per standard dry cubic foot of flue gas calculated to twelve percent (12%) carbon dioxide by volume for products of combustion. This limitation shall apply when the incinerator is operating at design capacity.

The carbon dioxide produced by combustion of any auxiliary fuels shall be excluded from the calculation to twelve percent (12%) carbon dioxide. After May 8, 1970, any new equipment shall be of the multiple chamber type or its equivalent for emission control. In critical areas where an installation is in close proximity to a residential area, an incinerator, except those specified in paragraph (b) of this section, or those specified in Section 6 and Section 12, shall be limited to emissions of 0.1 grains per standard dry cubic foot of flue gases calculated to twelve percent (12%) carbon dioxide by volume for products of combustion.

(b) The maximum discharge of smoke from the incineration of waste material resulting totally from the ginning of cotton shall not obscure an observer's view to a degree in excess of 40% opacity.

Start-up operations may produce emissions which exceed 40% opacity for up to fifteen minutes per start-up in any one hour not to exceed three (3) start-ups in any twenty-four (24) hour period.

After July 1, 1994, the emission limitation specified in paragraph (a) of this section shall also be applicable to cotton gin waste incinerators.

(c) The emission limitation in paragraph (a) above does not apply to afterburners, flares, thermal oxidizers, and other similar devices used to reduce the emissions of air pollutants from processes.

9. Sampling Ports.

(a) New Equipment: The owner or operator of any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere, shall have necessary sampling ports and ease of accessibility.

(b) Existing Equipment: The owner or operator of air pollution control equipment that is in existence prior to May 8, 1970, shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board.

10. More Restrictive Emission Limits. The Commission reserves the right to prescribe more stringent emission limits as it deems necessary in problem areas. The expansion, alteration, or establishment of a new industry may also result in the prescription of more stringent emission limits.

SECTION 4. SPECIFIC CRITERIA FOR SOURCES OF SULFUR COMPOUNDS

1. Sulfur Dioxide Emissions from Fuel Burning

   (a) The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

   (b) No person shall cause or permit the burning of fuel in any fuel burning equipment that results in an average emission of sulfur dioxide from any calendar year at a rate greater than was emitted by said fuel burning equipment for the corresponding calendar year 1970 unless otherwise authorized by the Commission. Installations under construction on January 25, 1972, are excluded from this requirement.

   (c) The maximum discharge of sulfur dioxide from any modified fuel burning unit whose generation capacity is less than 250 million BTU per hour and in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 2.4 pounds (measured as sulfur dioxide) per million BTU heat input. For the purposes of Section 4 of these regulations only, "modification" shall mean any physical change in an Air Contaminant Source which increases the amount of any air pollutant (to which a standard applies) emitted by such source or which results in the emission of any air pollutant (to which a standard applies) not previously emitted.

2. Sulfur Dioxide Emissions from Processes

   (a) Except as otherwise provided herein, no person shall cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 2,000 ppm (volume) from any process equipment in existence on January 25, 1972, or in excess of 500 ppm (volume) from any process equipment constructed after January 25, 1972. The 500 ppm (volume) requirement shall apply for equipment constructed after January 25, 1972 unless otherwise provided by the Commission.

   (b) Except as otherwise provided in paragraph 2(f)(1), no person shall cause or permit the emission of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet.

   Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than

1600°F for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide.

Sulfur dioxide concentration limitations in the gas streams resulting from such incineration or processing shall be determined for each emission point on a case-by-case basis to insure that the resulting maximum ground level concentration of sulfur dioxide as determined by acceptable method or methods will be in compliance with the National Ambient Air Quality Standards for sulfur dioxide. Testing to determine the productive capacity of new fields shall be exempted from emission limitation provisions of the paragraph of the regulation providing such testing has been previously negotiated and approved by the Mississippi Office of Pollution Control.

This regulation shall not apply to sulfur recovery plants.

(c) No person shall cause or permit acid mist emissions from sulfuric acid manufacturing plants to exceed 0.5 pounds/ton of acid produced. Sulfur trioxide emissions from sulfuric acid manufacturing plants shall not exceed 0.2 pounds/ton of acid produced.

(d) No person shall cause or permit emission of sulfur oxides, calculated as sulfur dioxide, from a sulfur recovery plant to exceed 0.12 pounds per pound of sulfur processed.

(e) No person shall cause or permit emissions of sulfur oxides, calculated as sulfur dioxide, from primary nonferrous smelters, in excess of the emission calculated as follows:

Copper smelters: $Y = 0.2X$
Zinc smelters: $Y = 0.564X^{0.85}$
Lead smelters: $Y = 0.98X^{0.77}$

Where X is the total sulfur fed to the smelter in pounds/hour and Y is the allowable sulfur emissions in pounds/hour.

(f) Kraft Pulp Mills

1. All mills existing prior to November 1, 1987, and not modified subsequent thereto, excluding mills or facilities subject to New Source Performance Standards, shall control the emission of total reduced sulfur compounds (TRS) so as to not exceed the emission limits set forth below:

   a. Straight recovery boiler systems - twenty (20) parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis, except that:

i. the International Paper Company, Vicksburg, Mississippi, shall be allowed 40 parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis,

ii. the International Paper Company, Natchez, Mississippi, Recovery Boilers 4 & 5, shall be allowed 40 parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis, and

iii. the Georgia-Pacific Corporation, Monticello, Mississippi, shall be allowed 40 parts per million TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis.

b. Lime kiln systems - twenty (20) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

c. Digester systems - five (5) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

d. Multiple effect evaporator systems - five (5) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

e. Condensate stripper systems - five (5) parts per million of TRS, expressed as hydrogen sulfide on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

f. Smelt dissolving tank - 0.016 gram of TRS, expressed as hydrogen sulfide on a dry gas basis, per kilogram of black liquor solids (dry weight).

g. Equivalent control systems (controls for treating collected noncondensible gases in a manner equivalent to incineration in a lime kiln) - five (5) parts per million TRS, expressed as hydrogen sulfide on a dry gas basis, corrected to the actual oxygen content of the untreated gas stream, on a 12-hour average basis.

2. All mills, as defined above, shall, by February 1, 1988, demonstrate compliance with the TRS emission limits set forth above. Compliance demonstration for recovery boilers, lime kilns, smelt tanks, and equivalent control systems for collected noncondensible gases shall be by testing in accordance with EPA Test Method 16 or

16A and submittal of a stack test report. Compliance demonstration for digester systems, multiple effect evaporator systems and condensate stripper systems shall be by certification that these systems are fully connected to a noncondensible gas collection system followed by incineration in the lime kiln or equivalent control and testing of lime kiln or equivalent control as specified above. A compliance schedule may be submitted, as set forth below, on any or all systems not expected to comply with the emission limit and such submittal will negate the requirement for immediate compliance demonstration, as referenced above, on those systems.

Any mill defined above which, on November 1, 1987, is unable to comply with the emission limits set forth above, shall, within three (3) months thereafter, submit a schedule for attaining compliance with these limits. The compliance schedule shall not extend past November 1, 1990. Compliance with emission limits shall be demonstrated by the methods specified above, as appropriate, no later than the end of the compliance schedule. Compliance demonstration for recovery boilers, lime kilns, smelt tanks, and equivalent control systems for collected noncondensible gases shall be by testing in accordance with EPA Test Method 16 or 16A and submittal of a stack test report. Compliance demonstration for digester systems, multiple effect evaporator systems and condensate stripper systems shall be by certification that these systems are fully connected to a noncondensible gas collection system followed by incineration in the lime kiln or equivalent control and testing of lime kiln or equivalent control as specified above.

3. All mills, as defined above, shall monitor the emission of TRS and/or other gas constituents as described below:

   a. The TRS emission concentration in recovery boiler flue gas shall be monitored by either:

      i. A continuous monitoring device which meets the requirements of 40 CFR 60, Performance Specification 5; or

      ii. Performance of EPA Method 16 or 16A on no less than a (calendar) quarterly basis.

   b. The oxygen concentration in recovery boiler flue gas shall be continuously monitored by a device which meets the requirements of 40 CFR 60, Performance Specification 3.

   c. The TRS concentration in lime kiln flue gas shall be continuously monitored by a device which meets the requirements of 40 CFR 60, Performance Specification 5.

d. The oxygen concentration in lime kiln flue gas shall be continuously monitored by a device which meets the requirements of 40 CFR 60, Performance Specification 3.

All mills, as defined above, shall obtain the necessary continuous monitoring equipment and begin monitoring by November 1, 1988, or no later than the date of final compliance with the regulation, if compliance is not immediate. For mills choosing to use EPA Method 16 or 16A for recovery boiler monitoring, the necessary equipment and/or monitoring capability must be obtained by February 1, 1988. Also, when Method 16 or 16A is used, each successive quarter's testing shall be separated from the previous quarter's by a period of not less than sixty (60) days and prior notice to the Mississippi Office of Pollution Control of all testing shall be made.

All mills, as defined above, shall calculate and record, on a daily basis, the 12-hour average TRS concentration and O_2 concentration for the two consecutive operating periods of each operating day for both the recovery boiler (if continuously monitored) and lime kiln. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 continuous 1-hour average concentrations. Each 12-hour average TRS concentration shall be corrected to 10%, or 8% O_2, as appropriate to the emission limit, using the equation defined in 40 CFR 60.284(c)(3).

All mills, as defined above, shall report, for each calendar quarter, the periods of emissions which exceed the TRS limits specified above from the recovery boiler and lime kiln. The report shall specify the 12-hour period of each exceedance by time and date, the average emissions concentration for the period, and total number of 12-hour periods of mill operation during the quarter. The report shall also detail all outages of the monitoring devices by time and date. The report shall be due within forty-five (45) days following the end of the calendar quarter.

SECTION 5. SPECIFIC CRITERIA FOR SOURCES OF CHEMICAL EMISSIONS

1. Fluorides. No person shall allow the emission of fluorides into the ambient air in excess of four-tenths (0.4) pound per ton of P_2O_5 or equivalent. The allowable emission of fluorides shall be calculated by multiplying the unit emission, specified above, times the expressed design production capacity of the installation or plant.

2. Miscellaneous Chemical Emissions. No person shall cause, permit, or allow the emission of toxic, noxious, or deleterious substances, in addition to those considered in these regulations, into the ambient air in concentrations sufficient to affect human health and well-being, or unreasonably interfere with the enjoyment of property or

unreasonably and adversely affect plant or animal life beyond the boundaries of the property containing the air pollution source.

SECTION 6. NEW SOURCES

The provisions of this section apply to the owner or operator of any source listed herein, the construction or modification of which is commenced after the date of adoption of specific emission limitations applicable to such source.

1. Kraft Pulping Mills. All sources shall minimize gaseous and particulate emission by use of modern equipment, devices, maintenance, and operating practices in accordance with best current technology. In no case shall emissions exceed the limits set forth in any applicable Federal Standard of Performance for New Stationary Sources.

2. Other Limitations. The Mississippi Pollution Control Permit Board, in accordance with Commission Regulation APC-S-2, may require more stringent emission limitations which it deems necessary to meet applicable national primary and secondary ambient air quality standards, necessary to insure that ambient air pollution concentrations do not exceed ambient air increments or violate other requirements under Federal Prevention of Significant Deterioration (PSD) regulations promulgated by the U.S. Environmental Protection Agency as of August 23, 1989, pursuant to Section 160 through 169 of the Federal Clean Air Act as amended, or necessary to meet other Federal law or regulations enacted or promulgated subsequent to this regulation.

3. New Source Performance Standards. The Federal New Source Performance Standards are those duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 60, pursuant to Section 111 of the Federal Clean Air Act, as amended, and Consolidated Federal Air Rule provisions duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R Part 65. All such regulations promulgated by the U.S. Environmental Protection Agency as of September 13, 2010, are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such (except the word "Administrator" in said standards and general implementing regulations shall be replaced by the words "Executive Director" and the word "Agency" shall be replaced by the word "Department".) Hereafter, any facility subject to the Federal New Source Performance Standards shall comply with the emission limitations and other requirements of said standards.

4. Additional Requirements for Infectious Waste Incineration.

    a. Infectious waste incinerators which incinerate only those wastes generated on-site and are installed after December 9, 1993, shall comply with the following:

i. Daily records shall be kept of the times of operation, quantity of wastes incinerated and the temperature of the secondary chamber which temperature shall be monitored continuously. Records shall be maintained on hand for at least two (2) years.

ii. Only wastes generated on-site may be incinerated. Disposal of wastes from off-site shall cause the incinerator to be classified as a commercial incinerator and, therefore, subject to the requirements applicable to such units.

b. Commercial Incinerators. For purposes of this regulation, a commercial incinerator is any infectious waste incinerator that incinerates wastes other than or in addition to wastes generated on-site. A commercial infectious waste incinerator installed or modified after December 9, 1993, shall comply with the following:

i. A manifest system, including a detailed description of the waste collection and transportation system shall be employed. Daily records shall be kept of the times of incinerator operation, quantity of wastes incinerated and temperature of the secondary chamber which temperature shall be monitored continuously. Records shall be maintained on hand for at least two (2) years.

ii. Notwithstanding the requirements of Section 6.4.b.i and Section 12, the Permit Board may in any permit, in accordance with Regulation APC-S-2, establish more stringent requirements for emissions, operating parameters, monitoring, and recordkeeping subject to the provisions of Miss. Code Ann. 49-17-34(2) and (3).

SECTION 7. EXCEPTIONS

If any single source of emission or combination of sources of emissions is found to compromise the ambient air quality in the State, beyond the limitations set forth in any national primary and secondary ambient air quality standards now or hereafter established by the Administrator of the Environmental Protection Agency pursuant to the Clean Air Act as amended December 31, 1970, (Public Law 91-640) notwithstanding compliance with any maximum allowable emission rate allowed by this regulation, the Mississippi Commission on Environmental Quality may require such further reduction in emission from this or these sources as is necessary to obtain compliance with said national primary and secondary ambient air quality standards.

SECTION 8. PROVISIONS FOR HAZARDOUS AIR POLLUTANTS

1. Hazardous Air Pollutant Emission Standards

Hazardous air pollutant emission standards are National Emission Standards for Hazardous Air Pollutants duly promulgated by the U. S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 61 pursuant to Section 112 of the

Federal Clean Air Act, as amended; National Emission Standards for Hazardous Air Pollutants for Source Categories duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 63 pursuant to Section 112 of the Federal Clean Air Act, as amended; and Consolidated Federal Air Rule provisions duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 65. All such regulations promulgated by the U.S. Environmental Protection Agency as of September 13, 2010, are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such (except the word "Administrator" in said standards and general implementing regulations shall be replaced by the words "Executive Director" and the word "Agency" shall be replaced by the word "Department"). Hereafter, any facility subject to the National Emission Standards for Hazardous Air Pollutants and/or the National Emission Standards for Hazardous Air Pollutants for Source Categories shall comply with the emission limitations and other requirements of said standards.

2. National Emission Standards for Hazardous Air Pollutants; Compliance Extensions for Early Reductions.

The National Emission Standards for Hazardous Air Pollutants: Compliance Extensions for Early Reductions are regulations duly promulgated by the U.S. Environmental Protection Agency in (or to be printed in) 40 C.F.R. Part 63 pursuant to Section 112 of the Federal Clean Air Act, as amended. All such regulations promulgated by the U.S. Environmental Protection Agency are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such.

3. Case by Case Maximum Achievable Control Technology Requirements

The Mississippi Pollution Control Permit Board, in accordance with Commission Regulation APC-S-6, may require emissions limitations necessary to meet case by case maximum achievable control technology ("MACT") requirements in accordance with Section 112(j) and (g) of the Federal Act.

4. Mercury Emissions from Electric Utilities.

Mercury emissions from electric utilities are regulated in accordance with the Emission Guidelines for the Control of Mercury Emissions from Coal-Fired Electric Steam Generating Units promulgated by the U.S. Environmental Protection Agency in 40 CFR Part 60, Subpart HHHH, pursuant to Section 111 of the Federal Clean Air Act, as amended. All such regulations duly promulgated by the U.S. Environmental Protection Agency as of October 3, 2008, are incorporated herein and adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such, except for the changes noted in (a) and (b). Hereafter, any facility subject to the Federal Emission Guidelines shall comply with all applicable requirements of the regulation.

(a) The phrase "permitting authority" shall mean "Mississippi Environmental

Quality Permit Board" except when used in the definitions of "Allocate or allocation" and "Hg allowance" in 40 CFR 60.4102.

(b) The permitting authority will allocate mercury allowances in accordance with the procedures outlined in 40 CFR 60.4142 and by the dates specified in 40 CFR 60.4141.

SECTION 9. STACK HEIGHT CONSIDERATIONS

1. Definitions

(a) "Emission limitation" and "emission standard." A requirement established which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

(b) "Stack." Any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.

(c) "A stack in existence." The owner or operator had either:

(1) Begun, or caused to begin, a continuous program of physical on-site construction of the stack, or

(2) Entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time.

(d) "Dispersion technique." Any technique which attempts to affect the concentration of a pollutant in the ambient air by using that portion of a stack which exceeds good engineering practice stack height, varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant, or increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise. The preceding sentence does not include:

(1) The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream:

(2) The merging of exhaust gas streams where:

(i) The source owner or operator demonstrates that the facility was originally designed and constructed with such merged gas streams;

(ii) After July 8, 1985, such merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion from the definition of "dispersion techniques" shall apply only to the emission limitation for the pollutant affected by such change in operation; or

(iii) Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to the merging, the reviewing agency shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source owner or operator that merging was not significantly motivated by such intent, the reviewing agency shall deny credit for the effects of such merging in calculating the allowable emissions for the source;

(3) The use of smoke management in agricultural or silvicultural prescribed burning programs; or

(4) Episodic restrictions on residential woodburning and open burning; or

(5) Techniques under Paragraph 9.1(d) which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year.

(e) "Good engineering practice (GEP) stack height." The greater of:

(1) 65 meters measured from the ground-level elevation at the base of the stack;

(2) (i) For stacks in existence on January 12, 1979, and for which the owner or operator had obtained all applicable preconstruction permits or approvals required, $Hg = 2.5\ H$, provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation;

(ii) For all other stacks,

Hg = H + 1.5L, where

Hg = good engineering practice stack height, measured from the ground-level elevation at the base of the stack,

H = height of nearby structure(s) measured from the ground-level elevation at the base of the stack, and

L = lesser dimension (height or projected width) of nearby structure(s),

provided that the U. S. Environmental Protection Agency or the Commission may require the use of a field study or fluid model to verify GEP stack height for the source; or

(3) The height demonstrated by a fluid model or a field study approved by the U. S. Environmental Protection Agency or the Commission, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures, or nearby terrain features.

(f) "Nearby," As used in Paragraph 9.1(e)(2)(ii) is defined for a specific structure or terrain feature and means:

(1) For purposes of applying the formulae provided in Paragraph 9.1(e)(2) that distance up to five times the lesser of the height or the width dimension of a structure, but not greater than 0.8 km (1/2 mile), and

(2) For conducting demonstrations under Paragraph 9.1(e)(3) that distance not greater than 0.8 km (1/2 mile), except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to 10 times the maximum height (Ht) of the feature, not to exceed 2 miles if such feature achieves a height (ht) 0.8 km from the stack that is at least 40 percent of the GEP stack height determined by the formulae provided in Paragraph 9.1(e)(2)(ii) of this part or 26 meters, whichever is greater, as measured from the ground-level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

(g) "Excessive concentration." For the purpose of determining good engineering practice stack height under Paragraph 9.1(e)(3), excessive concentration means:

(1) For sources seeking credit for stack height exceeding that established under Paragraph 9.1(e)(2), a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and which contributes to a total concentration due to emissions from all sources that is greater than an ambient air quality standard. For sources subject to the Prevention of Significant Deterioration program, an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and greater than a prevention of significant deterioration increment. The allowable emission rate to be used in making demonstrations under this part shall be prescribed by the new source performance standard that is applicable to the source category unless the owner or operator demonstrates that this emission rate is infeasible. Where such demonstrations are approved by the U. S. Environmental Protection Agency or the Commission, an alternative emission rate shall be established in consultation with the source owner or operator.

(2) For sources seeking credit after October 11, 1983, for increases in existing stack heights up to the heights established under Paragraph 9.1(e)(2), either a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effects as provided in Paragraph 9.1(g)(1) of this section, except that the emission rate specified by the State implementation plan (or, in the absence of such a limit, the actual emission rate) shall be used, or the actual presence of a local nuisance caused by the existing stack, as determined by the Commission, and

(3) For sources seeking credit after January 12, 1979, for a stack height determined under Paragraph 9.1(e)(2) where the U. S. Environmental Protection Agency or the Commission requires the use of a field study or fluid model to verify GEP stack height, for sources seeking stack height credit after November 9, 1984, based on the aerodynamic influence of cooling towers, and for sources seeking stack height credit after December 31, 1970, based on the aerodynamic influence of structures not adequately represented by the equations in Paragraph 9.1(e)(2), a maximum ground-level

concentration due in whole or part to downwash, wakes, or eddy effects that is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

2. Stack Height Effect on Emission Limitations

(a) The degree of emission limitation required of any source for control of any air pollutants shall not be affected by so much of any source's stack height that exceeds good engineering practice (GEP) or by any other dispersion technique, except as provided in (b) of this paragraph.

(b) The provisions of Paragraph 9.2(a) shall not apply to stack heights in existence, or dispersion techniques implemented, prior to December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by sources, as defined in Section 111(a)(3) of the Clean Air Act, which were constructed, or reconstructed or for which major modifications, as defined pursuant to Section 6, New Sources, were carried out after December 31, 1970.

(c) If any existing source, after appropriate application of the preceding limitations and provisions, is found to exceed or potentially exceed an air quality standard or increment, as appropriate, when operating within previously established emission limitations, the emission limitations applicable to that source shall be modified so as to eliminate and prevent the exceedance.

(d) If any new source or source modification, after appropriate application of the preceding limitations and provisions, is predicted to exceed an air quality standard, or increment, as appropriate, when considered as operating under emission limitations consistent with other Applicable Rules and Regulations, the emission limitations considered shall be deemed inadequate and different emission limits, based on air quality considerations, shall be made applicable.

(e) If any source provides a field study or fluid modeling demonstration proposing a GEP stack height greater than that allowed by Paragraph 9.1(e)(1) and (2), then the public will be notified of the availability of the study and provided the opportunity for a public hearing before any new or revised emission limitation or permit is approved.

(f) The actual stack height used or proposed by a source shall not be restricted in any manner by requirements of this paragraph.

SECTION 10. PROVISIONS FOR UPSETS, STARTUPS, AND SHUTDOWNS

1. Upsets

(a) The occurrence of an upset as defined in Section 2 constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the source demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(1) an upset occurred and that the source can identify the cause(s) of the upset;

(2) the source was at the time being properly operated;

(3) during the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(4) the source submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and

(5) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the source seeking to establish the occurrence of an upset has the burden of proof.

(c) This provision is in addition to any upset provision contained in any applicable requirement.

2. Startups and Shutdowns

(a) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:

(1) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;

(2) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or

(3) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.

(b) In any enforcement proceeding, the source seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.

(c) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.

3. Maintenance.

(a) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the source can demonstrate the following:

(1) the source can identify the need for the maintenance;

(2) the source was at the time being properly operated;

(3) during the maintenance the source took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(4) the source submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and

(5) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the source seeking to establish the applicability of this section has the burden of proof.

(c) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply.

SECTION 11. SEVERABILITY

If any provision, section, subsection, sentence, clause or phrase of any of these regulations, or the application of same to any person or set of circumstances is for any reason challenged or held to be invalid or void, the validity of the remaining regulations and/or portions thereof or their application to other persons or sets of circumstances shall not be affected thereby.

SECTION 12. PROVISIONS FOR EXISTING HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS

1. Applicability.

(a) Except as provided in subparagraphs (b) through (h) of this paragraph, the designated or affected facility to which Section 12 applies is each individual hospital/medical/infectious waste incinerator (HMIWI) for which construction was commenced on or before June 20, 1996.

(b) A combustor is not subject to Section 12 of these regulations during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned, provided the owner or operator of the combustor:

(1) Notifies the Department of an exemption claim; and

(2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(c) Any co-fired combustor is not subject to Section 12 of these regulations if the owner or operator of the co-fired combustor:

(1) Notifies the Department of an exemption claim;

(2) Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

(3) Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(d) Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act is not subject to Section 12 of these regulations.

(e) Any combustor which meets the applicability requirements in standards or guidelines for certain municipal waste combustors under Subpart Cb, Ea, or Eb of 40 C.F.R. 60 is not subject to Section 12 of these regulations.

(f) Any pyrolysis unit is not subject to Section 12 of these regulations.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to Section 12 of these regulations.

(h) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with Section 12 of these regulations are not considered a modification and do not result in an existing HMIWI unit

becoming subject to the new source provisions under Section 6 of these regulations and Subpart Ec of 40 C.F.R. 60.

(i) Each existing HMIWI is subject to the permitting requirements in Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6. Each owner and operator of an existing HMIWI shall submit an application for a Title V permit to the Department by December 15, 1999.

(j) Beginning September 15, 2000, designated facilities subject to Section 12 of these regulations shall operate pursuant to a permit issued under Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6.

2. For the purpose of the requirements in Section 12 of these regulations, the following definitions apply:

(a) "Administrator of EPA" means the Administrator of the United States Environmental Protection Agency or his authorized representative.

(b) "Batch HMIWI" means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

(c) "Biologicals" means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

(d) "Blood Products" means any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

(e) "Body Fluids" means liquid emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

(f) "Bypass stack" means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(g) "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.

(h) "Co-fired combustor" means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition,

pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

(i) "Continuous emission monitoring system or CEMS" means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

(j) "Continuous HMIWI" means an HMIWI that is designed to allow waste charging and ash removal during combustion.

(k) "Dioxins/furans" means the combined emissions of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

(l) "Dry scrubber" means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

(m) "Fabric filter or baghouse" means an add-on air pollution control system that removes particulate matter (PM) and nonvaporous metals emissions by passing flue gas through filter bags.

(n) "Facilities manager" means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include Director of Facilities or Vice President of Support Services.

(o) "High-air phase" means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

(p) "Hospital" means any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

(q) "Hospital/medical/infectious waste incinerator or HMIWI or HMIWI unit" means any device that combusts any amount of hospital waste and/or medical/infectious waste.

(r) "Hospital/medical/infectious waste incinerator operator or HMIWI operator" means any person who operates, controls, or supervises the day-to-day operation of an HMIWI.

(s) "Hospital waste" means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(t) "Infectious agent" means any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

(u) "Intermittent HMIWI" means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

(v) "Large HMIWI" means:

(1) Except as provided in subparagraph (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more that 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more that 4,000 pounds per day.

(2) The following are not large HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is less than or equal to 4,000 pounds per day.

(w) "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)].

(x) "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. During periods

of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

(y) "Maximum charge rate" means:

(1) For continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(2) For batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(z) "Maximum design waste burning capacity" means:

(1) For intermittent and continuous HMIWI,

$$C = PV \times \frac{15{,}000}{8{,}500}$$

Where:

C = HMIWI capacity, lb/hr

PV = primary chamber volume, ft^3

15,000 = primary chamber heat release rate factor, $Btu/ft^3/hr$

8,500 = standard waste heating value, Btu/lb;

(2) For batch HMIWI,

$$C = PV \times \frac{4.5}{8}$$

Where:

C = HMIWI capacity, lb/hr

PV = primary chamber volume, ft^3

4.5 = waste density, lb/ft;

8 = typical hours of operation of a batch HMIWI, hours.

(aa) "Maximum fabric filter inlet temperature" means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(bb) "Maximum flue gas temperature" means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

(cc) "Medical/infectious waste" means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials, hazardous waste, and household waste identified, listed, or defined in Part 261 of Mississippi Hazardous Waste Management Regulations.

(1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

(iii) Items saturated and/or dripping with human blood; or

(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of

pharmaceuticals. Intravenous bags are also included in this category.

(4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

(5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

(6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

(7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

(dd) "Medium HMIWI" means:

(1) Except as provided in subparagraph (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

(2) The following are not medium HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

(ee) "Minimum dioxin/furan sorbent flow rate" means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(ff) "Minimum Hg sorbent flow rate" means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

(gg) "Minimum hydrogen chloride (HCl) sorbent flow rate" means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(hh) "Minimum horsepower or amperage" means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

(ii) "Minimum pressure drop across the wet scrubber" means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

(jj) "Minimum scrubber liquor flow rate" means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(kk) "Minimum scrubber liquor pH" means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(ll) "Minimum secondary chamber temperature" means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, or dioxin/furan emission limits.

(mm) "Modification or Modified HMIWI" means any change to an HMIWI unit after March 16, 1998, such that:

(1) The cumulative costs of the modifications, over the life of the unit, exceed 50 per centum of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or

(2) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under Section 129 or Section 111 of the Federal Clean Air Act.

(nn) "Operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

(oo) "Operation" means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

(pp) "Particulate matter or PM" means the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 or EPA Reference Method 29.

(qq) "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).

(rr) "Primary chamber" means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

(ss) "Pyrolysis" means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(tt) "Secondary chamber" means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

(uu) "Shutdown" means the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent HMIWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch HMIWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

(vv) "Small HMIWI" means:

(1) Except as provided in subparagraph (2);

(i) An HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

(2) The following are not small HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour.

(ii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day.

(ww) "Standard conditions" means a temperature of 20□C and a pressure of 101.3 kilopascals.

(xx) "Standard Metropolitan Statistical Area or SMSA" means any areas listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993.

(yy) "Startup" means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

(zz) "Wet scrubber" means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organic) and/or to absorb and neutralize acid gases.

3. Emission limits.

(a) Except as provided for in subparagraph (b), no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain stack emissions in excess of the limits presented in Table 1 of this paragraph.

(b) The emission limits in Table 2 shall apply to any small HMIWI which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (SMSA) and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste. The 2,000 lb/week limitation does not apply during performance tests.

(c) No owner or operator of an affected facility shall cause to be discharged into the atmosphere from the stack of that affected facility any gases that exhibit greater than 10 percent opacity (6-minute block average).

TABLE 1. EMISSION LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	Emission Limits		
		HMIWI Size		
		Small	Medium	Large
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	115 (0.05)	69 (0.03)	34 (0.015)
Carbon monoxide	Parts per million by volume	40	40	40
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)
Hydrogen chloride	Parts per million by volume or percent reduction	100 or 93%	100 or 93%	100 or 93%
Sulfur dioxide	Parts per million by volume	55	55	55
Nitrogen oxides	Parts per million by volume	250	250	250
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.16 (0.07) or 65%	0.16 (0.07) or 65%	0.16 (0.07) or 65%
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%

TABLE 2. EMISSION LIMITS FOR SMALL RURAL HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI Emission Limits
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	197 (0.086)
Carbon monoxide	Parts per million by volume	40
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	800 (350) or 15 (6.6)
Hydrogen chloride	Parts per million by volume	3100
Sulfur dioxide	Parts per million by volume	55
Nitrogen oxides	Parts per million by volume	250
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	10 (4.4)
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	4 (1.7)
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	7.5 (3.3)

4. Operator Training and Qualification Requirements.

(a) Compliance with the requirements of this paragraph shall occur no later than September 15, 2000.

(b) No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

(c) Operator training and qualification shall be obtained through a State-approved program that meets the requirements included in subparagraphs (d) through (k) of this paragraph.

(d) Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

(1) 24 hours of training on the following subjects:

(i) Environmental concerns, including pathogen destruction and types of emissions;

(ii) Basic combustion principles, including products of combustion;

(iii) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(iv) Combustion controls and monitoring;

(v) Operation of air pollution control equipment and factors affecting performance (if applicable);

(vi) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);

(vii) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

(viii) Actions to correct malfunctions or conditions that may lead to malfunction;

(ix) Bottom and fly ash characteristics and handling procedures;

(x) Applicable Federal, State, and local regulations;

(xi) Work safety procedures;

(xii) Pre-startup inspections; and

(xiii) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Reference material distributed to the attendees covering the course topics.

(e) Qualification shall be obtained by:

(1) Completion of a training course that satisfies the criteria under subparagraph (d) of this paragraph; and

(2) Either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

(f) Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

(g) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:

(1) Update of regulations;

(2) Incinerator operation, including startup and shutdown procedures;

(3) Inspection and maintenance;

(4) Responses to malfunctions or conditions that may lead to malfunction; and

(5) Discussion of operating problems encountered by attendees.

(h) A lapsed qualification shall be renewed by one of the following methods:

(1) For a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard annual refresher course described in subparagraph (g) of this paragraph above.

(2) For a lapse of 3 years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in subparagraph (d) of this paragraph above.

(i) The owner or operator of an affected facility shall maintain documentation at the facility that address the following:

(1) Summary of the applicable standards under Section 12 of these regulations;

(2) Description of basic combustion theory applicable to an HMIWI;

(3) Procedures for receiving, handling, and charging waste;

(4) HMIWI startup, shutdown, and malfunction procedures;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the HMIWI and associated air pollution control systems within the standards established under Section 12 of these regulations;

(7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

(8) Procedures for monitoring HMIWI emissions;

(9) Reporting and recordkeeping procedures; and

(10) Procedures for handling ash.

(j) The owner or operator of an affected facility shall establish a program for reviewing the information listed in subparagraph (i) of this paragraph annually with each HMIWI operator.

(1) The initial review of the information listed in subparagraph (i) of this paragraph shall be conducted by March 15, 2000, or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

(2) Subsequent reviews of the information listed in subparagraph (i) of this paragraph shall be conducted annually.

(k) The information listed in subparagraph (i) of this paragraph shall be kept in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the Department upon request.

5. Waste Management Guidelines.

The owner or operator of an affected facility shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction

Strategies for Health Care Facilities" shall be considered in the development of the waste management plan.

6. Inspection Guidelines.

(a) The requirements of this paragraph apply to any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations.

(b) No later than September 15, 2000 and annually thereafter (no more than 12 months following the previous annual equipment inspection) an equipment inspection shall be performed.

(1) At a minimum, an inspection shall include the following:

(i) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;

(ii) Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

(iii) Inspect hinges and door latches, and lubricate as necessary;

(iv) Inspect dampers, fans, and blowers for proper operation;

(v) Inspect HMIWI door and door gaskets for proper sealing;

(vi) Inspect motors for proper operation;

(vii) Inspect primary chamber refractory lining; clean and repair/replace lining as necessary;

(viii) Inspect incinerator shell for corrosion and/or hot spots;

(ix) Inspect secondary/tertiary chamber and stack, clean as necessary;

(x) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(xi) Visually inspect waste bed (grates), and repair/seal, as appropriate;

(xii) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

(xiii) Inspect air pollution control devices(s) for proper operation, if applicable;

(xiv) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(xv) Inspect bypass stack components;

(xvi) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(xvii) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Department establishing a date whereby all necessary repairs of the designated facility shall be completed.

7. Compliance and Performance Testing.

(a) The emission limits under paragraph 3 in Section 12 of these regulations shall apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup, shutdown, or malfunction.

(b) The owner or operator of an affected facility shall conduct an initial performance test in accordance with the performance test requirements contained in 40 C.F.R. 60.8 to determine compliance with the emission limits using the procedures and test methods listed in subparagraphs (b)(1) through (b)(11) of this paragraph. The use of the bypass stack during a performance test shall invalidate the performance test.

(1) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(2) The minimum sample time shall be 1 hour per test run unless otherwise indicated.

(3) EPA Reference Method 1 of Appendix A of 40 C.F.R. 60 shall be used to select the sampling location and number of traverse points.

(4) EPA Reference Method 3 or 3A of Appendix A of 40 C.F.R. 60 shall be used for gas composition analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A of Appendix A of 40 C.F.R. 60 shall be used simultaneously with each reference method.

(5) The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} \frac{(20.9 - 7)}{(20.9 - \%O_2)}$$

Where:

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

C_{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.

(6) EPA Reference Method 5 or 29 Appendix A of 40 C.F.R. 60 shall be used to measure the particulate matter emissions.

(7) EPA Reference method 9 of Appendix A of 40 C.F.R. 60 shall be used to measure stack opacity.

(8) EPA Reference Method 10 or 10B of Appendix A of 40 C.F.R. 60 shall be used to measure the CO emissions.

(9) EPA Reference Method 23 of Appendix A of 40 C.F.R. 60 shall be used to measure total dioxin/furan emissions. The minimum sample time shall be 4 hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans, under paragraph 3 in Section 12 of these regulations, the following procedures shall be used to determine compliance:

(i) Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23.

(ii) For each dioxin/furan congener measured in accordance with subparagraph (b)(9)(i) of this paragraph, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 3 in Section 12 of these regulations.

(iii) Sum the products calculated in accordance with subparagraph (b)(9)(ii) of this paragraph to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(10) EPA Reference Method 26 of Appendix A of 40 C.F.R. 60 shall be used to measure HCl emissions. If the affected facility has selected the percentage reduction standards for HCl under paragraph 3 in

$$\left(\%R_{HCl}\right) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

Section 12 of these regulations, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

Where:

($\%R_{HCl}$)= percentage reduction of HCl emissions achieved;

E_i = HCl emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

E_o = HCl emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(11) EPA Reference Method 29 of Appendix A of 40 C.F.R. 60 shall be used to measure Pb, Cd, and Hg emissions. If the affected facility has selected the percentage reduction standards for metals under paragraph 3 in Section 12 of these regulations, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$\left(\%R_{metal}\right) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

Where:

($\%R_{metal}$)= percentage reduction of metal emission (Ph, Cd, or Hg) achieved;

E_i = metal emission concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

E_o = metal emission concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

TABLE 3. 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

(c) Following the date on which the initial performance test is completed or is required to be completed under the performance test requirements contained in 40 C.F.R. 60.8, whichever date comes first, the owner or operator of an affected facility shall:

(1) Determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in subparagraph (b) of this paragraph.

(2) Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in subparagraph (b) of this paragraph. If all three performance tests over a 3-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for up to an additional 2 years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

(3) Facilities using a CEMS to demonstrate compliance with any of the emission limits under paragraph 3 in Section 12 of these regulations shall:

(i) Determine compliance with the appropriate emission limit(s) using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours (not including startup, shutdown, or malfunction).

(ii) Operate all CEMS in accordance with the applicable procedures under Appendices B and F of 40 C.F.R. 60.

(d) The owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall:

(1) Establish the appropriate maximum and minimum operating parameters, indicated in Table 4 of Section 12 of these regulations for each control system, as site specific operating parameters during the initial performance test to determine compliance with the emission limits; and

(2) Following the date on which the initial performance test is completed or is required to be completed under the performance test requirements contained in 40 C.F.R. 60.8, whichever date comes first, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 4 in Section 12 of these regulations and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

(e) Except as provided in subparagraph (h) of this paragraph, for affected facilities equipped with a dry scrubber followed by a fabric filter:

(1) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(f) Except as provided in subparagraph (h) of this paragraph, for affected facilities equipped with a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured

on a 3-hour rolling average) simultaneously shall constitute a violation of the PM emission limit.

(2) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(3) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(5) Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(6) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(g) Except as provided in subparagraph (h) of this paragraph, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(h) The owner or operator of an affected facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under subparagraph (e), (f), or (g) of this paragraph.

(i) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under paragraph 3 in Section 12 of these regulations shall petition the Administrator for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the Administrator.

(j) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Department may request a repeat performance test at any time.

(k) Any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations shall meet the following compliance and performance testing requirements:

(1) Conduct the performance testing requirements in subparagraphs (a), (b)(1) through (b)(9), (b)(11) (mercury only), and (c)(1) of this paragraph. The 2,000 lb/week limitation does not apply during performance tests.

(2) Establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits.

(3) Following the date on which the initial performance test is completed or is required to be completed under the performance test requirements contained in 40 C.F.R. 60.8, whichever date comes first, ensure that the designated facility does not operate above the

maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, or malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s).

(4) Except as provided in subparagraph (k)(5) of this paragraph below, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(5) The owner or operator of a designated facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph must be conducted using the identical operating parameters that indicated a violation under subparagraph (k)(4), of this paragraph above.

8. Monitoring.

(a) The owner or operator of an affected facility shall install, calibrate (to manufacturer's specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 4 in Section 12 of these regulations such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 4 in Section 12 of these regulations at all times except during periods of startup and shutdown.

(b) The owner of operator of an affected facility shall install, calibrate (to manufacturer's specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

(c) The owner or operator of an affected facility using something other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under paragraph 3 in Section 12 of these regulations shall install, calibrate (to the manufacturer's specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to subparagraph 7(i) in Section 12 of these regulations.

(d) The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid

monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

(e) Any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations shall meet the following monitoring requirements:

(1) Install, calibrate (to manufacturer's specifications), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation.

(2) Install, calibrate (to manufacturer's specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

(3) The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hour per day and for 90 percent of the operating hour per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

TABLE 4. OPERATING PARAMETERS TO BE MONITORED AND MINIMUM MEASUREMENT AND RECORDING FREQUENCIES

Operating Parameters to be Monitored	**Minimum Frequency**		**Control System**		
	Data Measurement	**Data Recording**	**Dry Scrubber followed by Fabric Filter**	**Wet Scrubber**	**Dry Scrubber followed by Fabric Filter and Wet Scrubber**
Maximum operating parameters:					
Maximum charge rate	Continuous	1 x hour	X	X	X
Maximum fabric filter inlet temperature	Continuous	1 x minute	X		X
Maximum flue gas temperature	Continuous	1 x minute	X	X	
Minimum operating parameters:					
Minimum secondary chamber temperature	Continuous	1 x minute	X	X	X
Minimum dioxin/furan sorbent flow rate	Hourly	1 x hour	X		X
Minimum HCl sorbent flow rate	Hourly	1 x hour	X		X
Minimum mercury (Hg) sorbent flow rate	Hourly	1 x hour	X		X
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	Continuous	1 x minute		X	X
Minimum scrubber liquor flow rate	Continuous	1 x minute		X	X
Minimum scrubber liquor pH	Continuous	1 x minute		X	X

9. Reporting and Recordkeeping Requirements.

(a) The owner or operator of an affected facility shall maintain the following information (as applicable) for a period of at least 5 years:

(1) Calendar date of each record;

(2) Records of the following data:

(i) Concentrations of any pollutant listed in paragraph 3 in Section 12 of these regulations or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

(ii) Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

(iii) HMIWI charge dates, times, and weights and hourly charge rates;

(iv) Fabric filter inlet temperatures during each minute of operation, as applicable;

(v) Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

(vi) Amount and type of Hg sorbent used during each hour of operation, as applicable;

(vii) Amount and type of HCl sorbent used during each hour of operation, as applicable;

(viii) Secondary chamber temperatures recorded during each minute of operation;

(ix) Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

(x) Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

(xi) Pressure drop across the wet scrubber system during each minute of operation, as applicable;

(xii) Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

(xiii) pH at the inlet to the wet scrubber during each minute of operation, as applicable;

(xiv) Records indicating use of the bypass stack, including dates, times, and durations; and

(xv) For affected facilities complying with subparagraphs 7(i) and 8(c) in Section 12 of these regulations, the owner or operator shall maintain all operating parameter data collected.

(3) Identification of calendar days for which data on emission rates or operating parameters specified under subparagraph (a)(2) of this paragraph have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

(4) Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.

(5) Identification of calendar days for which data on emission rates or operating parameters specified under subparagraph (a)(2) of this paragraph exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, 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 parameters, as applicable.

(7) Records showing the names of HMIWI operators who have completed review of the information in subparagraph 4(i) as required by subparagraph 4(j), including the date of the initial review and all subsequent annual reviews;

(8) Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

(9) Records showing the names of the HMIWI operators who have met the criteria for qualification under paragraph 4 in Section 12 of these regulations and the dates of their qualification; and

(10) Records of calibration of any monitoring devices as required under subparagraphs 8(a), (b), and (c) in Section 12 of these regulations.

(b) The owner or operator of an affected facility shall submit the information specified in subparagraphs (b)(1) through (b)(3) of this paragraph no later

than 60 days following the initial performance test. All reports shall be signed by the facilities manager.

(1) The initial performance test data as recorded under subparagraphs 7(b)(1) through (b)(11), as applicable.

(2) The values for the site-specific operating parameters established pursuant to subparagraphs 7(d) or (i), as applicable.

(3) The waste management plan as specified in paragraph 5 in Section 12 of these regulations.

(c) An annual report shall be submitted 1 year following the submission of the information in subparagraph (b) of this paragraph and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements in Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in subparagraphs (c)(1) through (c)(8) of this paragraph. All reports shall be signed by the facilities manager.

(1) The values for the site-specific operating parameters established pursuant to subparagraph 7(d) or (i), as applicable.

(2) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to subparagraph 7(d) or (i), as applicable.

(3) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to subparagraph 7(d) or (i) for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.

(4) Any information recorded under subparagraphs (a)(3) through (a)(5) of this paragraph for the calendar year being reported.

(5) Any information recorded under subparagraphs (a)(3) through (a)(5) of this paragraph for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.

(6) If a performance test was conducted during the reporting period, the results of that test.

(7) If no exceedances or malfunctions were reported under subparagraphs (a)(3) through (a)(5) of this paragraph for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

(8) Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(d) The owner or operator of an affected facility shall submit semiannual reports containing any information recorded under subparagraphs (a)(3) through (a)(5) of this paragraph no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of information in subparagraph (b) of this paragraph. Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager.

(e) All records specified under subparagraph (a) of this paragraph shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Department.

(f) Any small HMIWI subject to the emission limits in Table 2 of paragraph 3 in Section 12 of these regulations shall meet the following reporting and recordkeeping requirements:

(1) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the Department; and

(2) Submit an annual report containing information recorded under subparagraph (f)(1) above no later than 60 days following the year in which data were collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report (once the unit is subject to permitting requirements in Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6, the owner or operator must submit these reports semiannually). The report shall be signed by the facilities manager.

10. Compliance Schedules.

(a) Except as provided in subparagraph (b), designated or affected facilities to which the provisions in Section 12 of these regulations applies (as defined in paragraph 1) shall comply with all requirements in Section 12 of these regulations on or before September 15, 2000, regardless of whether the Department has identified a designated or affected facility in the State Plan inventory required by Subpart B of 40 C.F.R. 60.

(b) For designated facilities planning to install the necessary air pollution control equipment, the Department may allow compliance on or before September

15, 2002, but as expeditiously as possible. No later than December 15, 1999, these facilities shall petition the Department in writing, as outlined in subparagraphs (1) through (2) below. Under no circumstances can compliance with the provisions in Section 12 of these regulations extend beyond September 15, 2002.

(1) Documentation of the analyses undertaken to support the need for an extension, including an explanation of why September 15, 2002, is sufficient time to comply while September 15, 2000, is not sufficient. The documentation shall also include an evaluation of the option to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

(2) Documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the requirements in Section 12 of these regulations, as defined in subparagraphs (i) through (x) below:

(i) Date for submitting a petition for site specific operating parameters under subparagraph 7(i) in Section 12 of these regulations;

(ii) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(iii) Date for obtaining design drawings of the air pollution control device(s);

(iv) Date for ordering the air pollution control device(s);

(v) Date for obtaining the major components of the air pollution control device(s);

(vi) Date for initiation of site preparation for installation of the air pollution control device(s);

(vii) Date for initiation of installation of the air pollution control device(s);

(viii) Date for initial startup of the air pollution control device(s); and

(ix) Date for initial compliance test(s) of the air pollution control device(s);

(x) Date for final compliance.

(c) Designated facilities planning to shut down permanently to demonstrate compliance with subparagraph (a) of this paragraph shall notify the Department in writing, no later than December 15, 1999. The notification shall include documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the requirements in Section 12 of these regulations, as defined in subparagraphs (1) through (6) below:

(1) Date for designated facility plan for shut down;

(2) Date for contract with the appropriate vendor (off-site hauler or alternative waste treatment equipment);

(3) Date to begin construction of alternative waste treatment equipment (if applicable);

(4) Date for complete installation of alternative waste treatment equipment (if applicable);

(5) Date for shut down of incinerator;

(6) Date for dismantling incinerator.

(d) Department Actions on Petitions. On receipt of a petition, the Department will authorize one of the following actions, as it shall determine:

(i) The petition may be dismissed if the Department determines that it is not adequate under subparagraph (b) of this paragraph.

(ii) The Department may grant the request of the petition, as petitioned or by imposing such conditions as the requirements in Section 12 of these regulations may require in the Title V permit, including the establishment of schedules of compliance.

(iii) The Department may deny the petition. If such a denial is made, the Department shall notify the petitioner in writing, state the reasons for denial and outline procedures for appeal.

(e) Termination Procedures. Any petition granted by the Department may be terminated by the Department whenever the Department finds, after an opportunity for the petitioner to demonstrate compliance and after notice and an opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the petition or that operation under the petition does not meet the minimum requirements established by State and Federal laws and regulations or is unreasonably threatening the public health.

SECTION 13. PROVISIONS FOR EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATION UNITS

1. Emission Standards. Provisions under this paragraph that apply to existing commercial and industrial solid waste incineration (CISWI) units are the requirements that are contained in 40 CFR 60.2575 through 60.2875. All such requirements are hereby adopted by reference by the Commission as official regulations of the State of Mississippi and shall hereafter be enforceable as such.

2. Applicability. The requirements of Section 13 shall apply to each existing commercial and industrial solid waste incineration unit that commenced construction on or before November 30, 1999 and meets the following criteria:

   (a) Commercial and industrial solid waste incineration (CISWI) unit means any combustion device that combusts commercial and industrial waste. 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 and (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.

   (b) 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.

   (c) 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 (42 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).

   (d) Solid waste combustion units are exempt from the requirements of Section 13 as described and set forth below:

(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 40 CFR 60.2875 are not subject to the requirements of Section 13 if the owner or operator of the CISWI unit meets the two requirements specified in (1)(i) and (ii) of this paragraph.

(i) Notify the Executive 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 40 CFR 60.2875 are not subject to the requirements of Section 13 if the owner or operator of the CISWI unit meets the two requirements specified in (2)(i) and (ii) of this paragraph.

(i) Notify the Executive 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 (3)(i) or (ii) of this paragraph.

(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 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 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 owner or operator of the CISWI unit meets the two requirements in (3) (ii) (A) and (B) of this paragraph.

(A) Notify the Executive 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 Ca (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(5) Small power production facilities. Units that meet the three requirements specified in (5)(i) through (iii) of this paragraph.

(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 owner or operator of the CISWI unit notifies the Executive Director that the unit meets all of these criteria.

(6) Co-generation facilities. Units that meet the three requirements specified in (6)(i) through (iii) of this paragraph.

(i) The unit qualifies as a co-generation 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 owner or operator of the CISWI unit notifies the Executive Director that the unit meets all of these criteria.

(7) Hazardous waste combustion units. Units that meet either of the two criteria specified in (7)(i) or (ii) of this paragraph.

(i) Units for which the owner or operator is required to get a permit under section 3005 of the Solid Waste Disposal Act.

(ii) Units regulated under Subpart EEE of 40 CFR Part 63 (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 (9)(i) through (iii) of this paragraph are only required to meet the requirements under "Air Curtain Incinerators" 40 CFR 60.2810 through 60.2870.

(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 40 CFR 60.2875)

(11) Rack, part, and drum reclamation units. (See 40 CFR 60.2875)

(12) Cement kilns. Kilns regulated under Subpart LLL of 40 CFR Part 63 (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(13) Sewage sludge incinerators. Incineration units regulated under Subpart O of 40 CFR Part 60 (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 (14)(i) through (vii) of this paragraph 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.

3. Schedule for compliance.

(a) Except as provided in sub-paragraph (b), each designated or affected facility to which the provisions of Section 13 are applicable, shall comply with the emission standards and requirements set forth in Section 13 not later than December 1, 2003.

(b) Any designated or affected facility that does not comply with sub-paragraph (a) shall be subject to the increments of progress requirements set forth in 40 CFR 60.2575 through 60.2605 and shall comply as follows:

(1) Increment 1 - Submit final control plan - April 1, 2003

(2) Increment 2 - Achieve final compliance - December 1, 2005

4. Permitting requirements. Each CISWI unit affected by the provisions of Section 13 shall be subject to the permitting requirements of Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, APC-S-6; and the owner and/or operator of the affected facility shall submit the necessary permit application not later than April 1, 2003. Beginning December 1, 2003, affected

facilities shall only operate pursuant to authorization, or a permit issued, pursuant to the operating permit regulations referenced herein.

5. Clarifications of terminology. Clarification for certain terms contained in the requirements adopted by reference into Section 13 are as follows:

   (a) The term "Administrator", as it relates to the State Air Pollution Control Agency in 40 CFR 60.2575 through 60.2875, means the "Executive Director" of the Mississippi Department of Environmental Quality.

   (b) The term "You" in 40 CFR 60.2575 through 60.2875 means the owner or operator of a CISWI unit.

   (c) The term "State plan" in 40 CFR 60.2575 through 60.2875 means the plan (including the requirements set forth in Section 13) submitted to the U.S. Environmental Protection Agency that implement the emission guidelines contained in 40 CFR 60, Subpart DDDD.

SECTION 14. PROVISIONS FOR THE CLEAN AIR INTERSTATE RULE.

1. The provisions of this paragraph apply to Electric Generating Units subject to the Clean Air Interstate Rule (CAIR) as set forth in 40 CFR 51.123, 40 CFR 51.124, and 40 CFR 96.102 through 40 CFR 96.388 as amended and promulgated by the U.S. Environmental Protection Agency as of October 3, 2008. All such requirements are incorporated herein and adopted by reference by the Mississippi Commission on Environmental Quality as official regulations of the State of Mississippi and shall hereafter be enforceable as such except as follows:

   (a) The term "permitting authority" shall mean the "Mississippi Environmental Quality Permit Board" except when used in the definitions of "Allocate or allocation" and "CAIR NOx allowance" in 40 CFR 96.102, the definitions of "Allocate or allocation" and "CAIR SO2 allowance" in 40 CFR 96.202, and the definitions of "Allocate or allocation" and "CAIR NOx Ozone Season allowance" in 40 CFR 96.302.

   (b) Unit specific nitrogen oxides (NO_x) annual and ozone season allowances shall be established by the Commission in accordance with the procedures outlined in 40 CFR 96.142 and 40 CFR 96.342 and will be assigned to each unit by the dates specified in 40 CFR 96.141 and 40 CFR 96.341.