Title 11: **Mississippi Department of Environmental Quality**

Part 2: **Air Regulations**

Part 2, Chapter 1: **MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY, AIR EMISSION REGULATIONS FOR THE PREVENTION, ABATEMENT, AND CONTROL OF AIR CONTAMINANTS**

Rule 1.1. GENERAL

A. 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.

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

C. 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.

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3rd Revision:	JAN 26, 1994	FEB 12, 1996	61 FR 5295
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Rule 1.2. DEFINITIONS

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

A. "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.

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

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

D. "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.

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

F. "Air pollution." The presence in the outdoor ambient air of one or more air contaminants in quantities, or characteristic, any 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 or use of property, throughout the State or throughout such area of the State as shall be affected thereby.

H. "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.

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

J. "Commission." The Mississippi Commission on Natural Resources.

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

L. "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.

M. "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.

N. "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.

O. "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.

O. "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.

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

Q. "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.

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

T "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 the approved State Implementation Plan.

U. "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.

V. "$PM_{2.5}$" 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.

W. "$PM_{2.5}$ 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.

X. "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.

Y. "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.

Z. "Process weight." The total weight of all materials introduced into a source operation 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.

AA. "Recreational area." Recreational area means:

(1) a national, state, county, or city designated park; or

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

BB. "Residential area." Residential area means:

(1) a group of 20 or more sigle family dwelling units on contiguous property and having an average density of two or more units per acre, or

(2) a group of 40 or more single family dwelling units on contiguous property and having an average density of one or mre units per acre, or

(3) 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.

CC. "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.

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

EE. "Soot." Agglomerated particles consisting mainly of carbonaceous material.

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

GG. "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.

HH. "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.

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

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

KK. "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.

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Rule 1.3 SPECIFIC CRITERIA FOR SOURCES OF PARTICULATE MATTER

A. Smoke

-(1) 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 Rule 1.3.A(2) & (3).

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

(3) 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) minute per billion BTU gross heating value of fuel in any one hour.

B. 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 Rule 1.3.A.(1) This shall not apply to vision obscuration caused by uncombined water droplets.

C. 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.

(1) 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.

(2) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof, escape from a building or equipment in such a manner 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.

D. Fuel Burning

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

(a) 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.

(b) 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 inut in millions of BTU per hour.

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

(2) 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.

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

F. Manufacturing Processes.

(1) 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.

(2) Kraft Pulp Mill. All mills existing prior to January 25, 1972, and not modified subsequent thereto shall comply with the following emission limits.

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

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

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

G. 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 ordinance; and permitted open burning at hazardous waste disposal facilities subject to regulation under Subtitle C of the Federal Resource Conservation and Recovery Act (RCRA).

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

(a) A Permit must be obtained from the Mississippi Forestry Commission when there is a Forestry Commission tower serving the area in which burning occurs.

(b) 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.

(c) 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.

(2) 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.

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

(b) 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 but not within 50 yards of an occupied dwelling.

(c) 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.

(3) 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.

(4) 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 G(1) above, open burning of land-clearing debris described in G(2) above, and permitted open burning at a hazardous waste disposal facility described in G(3) above are prohibited in said county when as 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 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.

H. Incineration.

(a) The maximum discharge of particulate matter from any incinerator, except those specified in paragraph (2) or (3) of this rule, or those specified in Rule 1.6 and 1.12, 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.

(1) 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 (2) of this rule, or those specified in Rule 1.6 and 1.12, shall be limited to emissions of 0.1 grains per standard dry cubic foot of the flue gases calculated to twelve percent (12%) carbon dioxide by volume for products of combustion.

(2) 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.

(3) 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.

I. Sampling Ports.

(1) New Equipment: The owner or operator of any 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.

(2) 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 within a reasonable time when deemed necessary by the Permit Board.

J. 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.

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3rd Revision:	JAN 26, 1994	FEB 12, 1996	61 FR 5295
4th Revision	SEP 30, 1996	JUL 15, 1997	62 FR 37724
5th Revision	MAY 5, 1999	DEC 20, 2002	67 FR 77926
6th Revision	JUL 25, 2010	SEP 25, 2015	80 FR 57730
7TH Revision	NOV 21, 2016	JUN 14, 2017	Letter Notice

Rule 1.4. SPECIFIC CRITERIA FOR SOURCES OF SULFUR COMPOUNDS

A. Sulfur Dioxide Emission from Fuel Burning.

(1) 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.

(2) 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 to the corresponding calendar year 1970 unless otherwise authorized by the Commission. Installations under construction on January 25, 1972, are excluded from this requirement.

(3) 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 purpose of Rule 1.4 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.

B. Sulfur Dioxide Emissions from Processes

(1) 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 existing process equipment, or in excess of 500 ppm (volume) from any new process equipment. The 500 ppm (volume) requirement shall apply for new equipment unless otherwise provided by the Commission.

(2) 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^{o}F for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for 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.

(3) 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.

(4) 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.

(5) 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.

(6) Kraft Pulp Mills.

(a) 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:

(1) 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.

(2) 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.

(3) 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.

(4) 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.

(5) 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.

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

(7) 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.

(b) 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.

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

(1) 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.

(2) 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.

(3) 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.

(4) 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.

(d) 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 Bureau of all testing shall be made.

(e)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).

(f) All mills, as defined above, shall report, for each calendar quarter, the periods of emission 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 emission concentration for the period, and the 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.

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Rule 1.5 SPECIFIC CRITERIA FOR SOURCES OF CHEMICAL EMISSIONS

A. Fluorides. No person shall allow the emission of fluorides into the ambient air in excess of four-tenths (0.4) pounds 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 opacity of the installation or plant.

B. 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.

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Rule 1.6 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.

A. Kraft Pulping Mills. All sources shall minimize gaseous and particulate emission by use of modern equipment, devices, maintenances, 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.

[PARAGRAPH B, "OTHER LIMITATIONS", AND PARAGRAPH C, “NEW SOURCE PERFORMANCE STANDARDS”, HAVE NOT BEEN FEDERALLY APPROVED INTO THE SIP.]

D. Additional Requirements for Infectious Waste Incineration.

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

(a) 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.

(b) 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.

(2) 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:

(a) 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.

(b) Notwithstanding the requirements of Rule 1.6D(2)(a) and Rule 1.12, the Permit Board may in any permit, in accordance with Title 11, Part 2, Chapter 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).

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg:	FEB 4, 1972	MAY 31, 1972	37 FR 10875
1st Revision:	SEP 8, 1981	OCT 5, 1982	47 FR 952
2nd Revision:	JAN 26, 1994	FEB 12, 1996	61 FR 5295
3rd Revision	MAY 5, 1999	DEC 20, 2002	67 FR 77926
4th Revision	NOV 21, 2016	JUN 14, 2017	Letter Notice

Rule 1.7 EXCEPTIONS

If any single source of emission or combination of sources of emission be 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), not withstanding compliance with any maximum allowable emission rate allowed by this regulation, the Mississippi Commission on Natural Resources 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.

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Rule 1.9 STACK HEIGHT CONSIDERATIONS

A. Definitions

(1) "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.

(2) "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.

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

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

(b) Entered into binding agreements or contractual obligations, which could not be canceled 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.

(4) "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:

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

(b) The merging of exhaust gas stream where:

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

(2) 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

(3) 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 that 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.

(c) The use of smoke management in agricultural or silvicultural prescribed burning program; or

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

(e) Techniques under Rule 1.9.A.(4) 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.

(5) "Good engineering practice (GEP) stack height." The greater of;

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

(b) (1) 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 = 2.5H, provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation;

(2) For all other stacks,

Hg = H + 1.5L, where

Hg = good engineering practice stack height, measured from 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,

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.

(c) "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 Rule 1.9.A.5(b) a 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 Rule 1.9.A(5)(c) 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 (h t) 0.8 km from the stack that is at least 40 percent of the GEP stack height determined by the formulae provided in Rule 1.9.A(5)(2) 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.

(d) "Excessive concentration." For the purpose of determining good engineering practice stack height under Rule 1.9.A(5)(c) excessive concentration means:

(1) For sources seeking credit for stack height exceeding that established under Rule 1.9.A(5)(b) 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 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, 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, wake, 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 Rule 1.9.A(5)(b), either a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effects as provided in Rule 1.9.A(5)(b) 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 Rule 1.9.A(5)(b) 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 Rule 1.9.A(5)(b) 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.

B. Stack Height Effect on Emission Limitations.

(1) 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 (2) of this paragraph.

(2) The provisions of Rule 1.9.B(1) 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 Rule 1.6., New Sources, were carried out after December 31, 1970.

(3) 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.

(4) 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.

(5) If any source provides a field of study or fluid modeling demonstration proposing a GEP stack height greater than that allowed by Rule 1.9.A(5)(a) and (b) 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.

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

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Rule 1.10 PROVISIONS FOR UPSETS, STARTUPS, AND SHUTDOWNS

A. Upsets

(1) The occurrence of an upset as defined in Rule 1.2 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:

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

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

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

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

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

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

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

B. Startups and Shutdowns

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

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

(b) 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

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

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

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

C. Maintenance

(1) 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 enforecement action brought for noncompliance with emission standards, or other regulatory requirements if the source can demonstrate the following:

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

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

(c) 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;

(d) 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

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

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

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

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Rule 1.11 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.

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Rule 1.14. PROVISIONS FOR THE CLEAN AIR INTERSTATE RULE

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 September 15, 2006. 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 NO_x allowance" in 40 CFR 96.102, the definition of "Allocate or allocation" and CAIR SO_2 allowance" in 40 CFR 96.202, and the definitions of "Allocate or allocation" and "CAIR NO_x 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.

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