AIR POLLUTION CONTROL RULES AND REGULATIONS

HUNTSVILLE
The Star of Alabama

CITY OF HUNTSVILLE, ALABAMA

DIVISION OF NATURAL RESOURCES & ENVIRONMENTAL MANAGEMENT

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March 10, 2016

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RULES AND REGULATIONS FOR THE CONTROL OF AIR POLLUTION WITHIN THE CITY OF HUNTSVILLE, ALABAMA

Disclaimer

as initially adopted by the City Council of the City of Huntsville by Ordinance 72-156 on July 27, 1972;

amended by Ordinance 73-18 on February 8, 1973;
amended by Ordinance 75-180 on March 27, 1975;
amended by Ordinance 76-334 on August 26, 1976;
amended by Ordinance 78-150 on March 23, 1978;
amended by Ordinance 80-152 on May 22, 1980;
amended by Ordinance 82-297 on August 12, 1982;
amended by Ordinance 86-18 on January 23, 1986;
amended by Ordinance 86-523 on August 14, 1986;
amended by Ordinance 92-107 on April 23, 1992;
amended by Ordinance 93-709 on November 9, 1993;
amended by Ordinance 94-74 on March 24, 1994;
amended by Ordinance 95-839 on January 25, 1996;
amended by Ordinance 97-41 on March 13, 1997;
amended by Ordinance 98-153 on March 26, 1998;
amended by Ordinance 99-494 on July 22, 1999;
amended by Ordinance 00-811 on November 9, 2000;
amended by Ordinance 01-730 on September 13, 2001
amended by Ordinance 03-143 on April 10, 2003
amended by Ordinance 04-485 on August 12, 2004
amended by Ordinance 07-568 on July 26, 2007
amended by Ordinance 11-507 on September 8, 2011

and further

amended by Ordinance 16-009 on March 10, 2016

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CHAPTER 1. GENERAL PROVISIONS

1.1 Declaration of Policy and Purpose.

1.1.1 It is hereby declared to be the public policy of the City of Huntsville and the purpose of these regulations to achieve and maintain for the City of Huntsville such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the social development of the City of Huntsville and facilitate the enjoyment of the natural attractions of this city.

1.1.2 To these ends it is the purpose of these regulations to provide for a coordinated program of air pollution prevention, abatement, and control within the City of Huntsville; to facilitate cooperation with the Alabama Department of Environmental Management and provide a framework consistent with Act 769, Alabama Legislature, Regular Session 1971, within which all values may be balanced in the public interest. (Revised January 23, 1986)

1.2 Structure and Numbering of Rules and Regulations.

1.2.1 Title and Scope. The provisions contained in these rules and regulations shall be known and may be cited as the City of Huntsville Air Pollution Control Rules and Regulations, and shall apply to all activities and all persons in Huntsville, Alabama.

1.2.2 Chapters. The normal division of these rules and regulations are chapters, which should encompass a broad subject matter. Chapters are numbered consecutively in Arabic throughout the rules and regulations.

1.2.3 Parts. The normal division of chapters is parts. A part should be devoted to a specific subject matter within a chapter. Parts are numbered consecutively in Arabic throughout each chapter and shall include the number of the chapter set off by a

decimal point. Thus, the part number for part 15 within Chapter 3 is 3.15.

1.2.4 Sections. The normal division of parts are sections. The section is the basic unit of these rules and regulations. Sections are numbered consecutively in Arabic throughout each part and shall include the numbers of the part set off by a decimal point. Thus, the section number for Section 26 of Part 3.15 is 3.15.26.

1.2.5 Internal Division of Sections. Whenever internal divisions are necessary, sections shall be subdivided into paragraphs, paragraphs into subparagraphs, and subparagraphs into subdivisions, designated as follows:

Terminology:	Illustrative Symbol:
Paragraph	(a)
Subparagraph	(1)
Subdivision	(i)

1.2.6 Promulgation Procedure. All requirements and provisions subject to inclusion in these rules and regulations shall be drafted as amendments to the Huntsville Air Pollution Control Rules and Regulations and prepared in accordance with the provisions of this part and with, insofar as it applies and does not conflict with this part, the provisions of Part 17 of Title 1 of the Code of Federal Regulations or the Alabama Air Pollution Control Act of 1971, as the same may be amended or revised.

1.3 Definitions. As used in these rules and regulations, terms shall have the meanings ascribed in this part. (amended September 8, 2011)

"Accumulator" shall mean the reservoir of ac condensing unit receiving the condensate from the condenser.

"Act" shall mean the Alabama Air Pollution Control

Act of 1971, Act No. 769, Regular Session, 1971.

"Air Contaminant" shall mean any solid, liquid, or gaseous matter, any odor, or any combination thereof, from whatever source.

"Air Dried Coating" shall mean coatings which are dried by the use of air or forced warm air at temperatures up to 194°F.

"Air Pollution" shall mean the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as are, or tend to be, injurious to human health or welfare, animal or plant life, or property, or would interfere with the enjoyment of life or property throughout the city and in such territories of the city as shall be affected thereby.

"Air Pollution Emergency" shall mean a situation in which meteorological conditions and/or contaminant levels in the ambient air reach or exceed the levels which may cause imminent and substantial endangerment to health.

"Air Sticker" shall mean a sticker to be affixed to a gasoline tank truck, representing issuance of an Air Permit and that the gasoline tank truck has been demonstrated during its most recent annual vapor leak testing to be leak free.

"Asphalt" shall mean a dark brown to black cementitious material (solid, semisolid, or liquid in consistency) in which the predominating constituents are bitumens which occur in nature as such or which are obtained as residue in refining petroleum.

"Automobile" shall mean all passenger cars or passenger car derivations capable of seating 12 or fewer passengers.

"Bottom Filling" shall mean the filling of a tank truck or stationary storage tank through an opening that is flush with the tank bottom.

"Board" shall mean the City of Huntsville Air

Pollution Control Board.

"Bulk Gasoline Plant" shall mean a gasoline storage and distribution facility with an average daily throughput equal to or less than 20,000 gallons in any calendar month which receives gasoline from bulk terminals by trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and gasoline dispensing facilities.

"Bulk Gasoline Terminal" shall mean a gasoline storage facility which receives gasoline from refineries primarily by pipelines, ships, and barges and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank trucks, and has an average daily throughput of more than 20,000 gallons in any calendar month.

"Capture System" shall mean all equipment (including hoods, ducts, fans, etc.) used to contain, capture, or transport a pollutant to a control device.

"Chairman" shall mean the Chairman of the City of Huntsville Air Pollution Control Board or in his absence, the Vice Chairman of the Air Pollution Control Board.

"Clear Coat" shall mean a coating which lacks color and opacity or is transparent and uses the under-coat as a reflectant base or undertone color.

"Class II Hardboard Paneling Finish" shall mean finishes which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.

"Coating" shall mean a protective, decorative, or functional film applied in a thin layer to a surface substrate.

"Coating Application System" shall mean all operations and equipment which apply, convey, and dry a surface coating, including, but not limited to, spray booths, flow coaters, conveyors, flash-off areas, air dryers and ovens.

"Coating Applicator" shall mean an apparatus used to apply a surface coating.

"Coating Line" shall mean one or more apparatus or operations which include a coating applicator, flash-off area, and oven wherein a surface coating is applied, dried, and/or cured.

"Coil Coating" shall mean the coating of any flat metal sheet or strip that comes in rolls or coils.

"Cold Cleaning" shall mean the batch process of cleaning and removing soils from surfaces by spraying, brushing, flushing or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

"Commenced" shall mean that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

"Commission" shall mean the Commission of the State of Alabama Department of Environmental Management.

"Condensate" shall mean hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

"Condenser" shall mean any heat transfer device used to liquefy vapors by removing their latent heats of vaporization. Such devices include, but are not limited to, shell and tube, coil, surface, or contact condensers. Also "condenser" shall mean as pertains to the manufacture of synthesized pharmaceutical products, a device which cools a gas system to a temperature which removes specific organic compounds by condensation.

"Continuous Vapor Control System" shall mean a vapor control system that treats vapors displaced from tanks during filling on a demand basis without intermediate

accumulation.

"Control Equipment" shall mean any device which has the function of controlling the emissions from a process, a fuel-burning, or refuse-burning device and thus reduces the creation of, or the emission of air contaminants into the atmosphere, or both.

"Control Strategy" shall mean a collection of various emission standards selected for the different categories of sources.

"Control System" shall mean any number of control devices, including condensers, which are designed and operated to reduce the quantity of air contaminants emitted to the atmosphere.

"Control Regulation" shall mean a legally enforceable emission control strategy.

"Crude Oil" shall mean a naturally occurring mixture which consists of hydrocarbons and sulfur, nitrogen and/or oxygen derivatives of hydrocarbons and which is a liquid in the reservoir at standard conditions.

"Custody Transfer" shall mean the transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other form of transportation.

"Cutback Asphalt" shall mean asphalt cement which has been liquefied by blending with petroleum solvents (diluents). Upon exposure to atmospheric conditions, the diluents evaporate, leaving the asphalt cement to perform its function.

"Day" shall mean a 24-hour period beginning at midnight.

"Delivery Vessel" shall mean tank trucks or trailers equipped with a storage tank and used for the transport of gasoline from sources of supply to stationary storage tanks of gasoline dispensing facilities.

"Director" shall mean the Director of the Department of Natural Resources and Environmental Management of the City of Huntsville, or in his absence, his designated representative.

"Dry-cleaning Facility" shall mean any facility engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means of one or more washes in solvent, extraction of excess solvent by spinning, and drying by tumbling in an airstream. The facility includes but is not limited to any washer, dryer, filter and purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves.

"Effluent Water Separator" shall mean any tank, box, sump, or other container in which any volatile organic compound floating on or entrained or contained in water entering such tank, box, sump, or other container is physically separated and removed from such water prior to out-fall, drainage, or recovery of such water.

"Emission" shall mean a release into the outdoor atmosphere of air contaminants.

"End Sealing Compound" shall mean a synthetic rubber compound which is coated onto can ends and which functions as a gasket when the end is assembled on the can.

"External Floating Roof" shall mean a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the petroleum liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank wall.

"Existing Source" shall mean any source in operation or on which construction has commenced on the date of initial adoption of an applicable rule or regulation; except that any existing source which has undergone modification after the date of initial adoption of an applicable rule or regulation, shall be reclassified and considered a new source.

"Exterior Base Coating" shall mean a coating applied

to the exterior of a can to provide exterior protection to the metal and to provide background for the lithographic or printing operation.

"Extreme Environmental Conditions" shall mean exposure to any one of the following; the weather all of the time, temperatures consistently above 203°F, detergents, abrasive and scouring agents, solvents, corrosive atmospheres, or similar environmental conditions.

"Extreme Performance Coatings" shall mean coatings designed for harsh exposure or extreme environmental conditions.

"Fabric Coating" shall mean the coating of a textile substrate with a knife, roll, or rotogravure coater to impart properties that are not initially present, such as strength, stability, water or acid repellency, or appearance. Fabric coating includes, but is not limited to, application by impregnation or saturation or by the use of roll, knife, or rotogravure coating.

"Federal Act" shall mean the Clean Air Act (42 USC. 1857 et seq.) as last amended, and as may hereafter be amended.

"Firebox" shall mean the chamber or compartment of a boiler or furnace in which materials are burned, but does not mean the combustion chamber of an incinerator.

"Flash-off Area" shall mean the space between the application area and the oven.

"Flexographic Printing" shall mean the application of words, designs, and pictures to a substrate by means of a roll printing technique in which both the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

"Freeboard Height" shall mean for a cold cleaner, the distance from the liquid solvent level in the degreaser tank to the lip of the tank. For vapor degreasers it is the distance from the vapor solvent

level in the tank to the lip of the tank.

"Freeboard Ratio" shall mean the freeboard height divided by the width of the degreaser.

"Fuel Burning Equipment" shall mean any equipment, device, or contrivance and all appurtenances thereto, including ducts, fuel-feeding equipment, ash removal equipment, combustion controls, stacks and chimneys, used primarily but not exclusively, to burn any fuel for the purpose of indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion.

"Fugitive Dust" shall mean solid air-borne particulate matter emitted from any source other than a flue or stack.

"Gas Service" shall mean equipment which processes, transfers or contains a VOC or mixture of VOCs in the gaseous phase.

"Gasoline" shall mean a petroleum distillate having a Reid vapor pressure of 4 psia or greater and used as a fuel for internal combustion engines.

"Gasoline Dispensing Facility" shall mean any outlet where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

"Governing Body" shall mean the City Council of the City of Huntsville.

"Green Tires" shall mean assembled tires before molding and curing have occurred.

"Green Tire Spraying" shall mean the spraying of green tires, both inside and outside, with compounds which help remove air from the tire, prevent the tire from sticking to the mold during curing, improve the finish, etc.

"Hardboard" shall mean a panel manufactured primarily from inter-felted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot

press.

"Hardboard Plywood" shall mean plywood whose surface layer is a veneer of hardwood.

"Heat Available" shall mean the aggregate heat content of all fuels whose products of combustion pass through a stack or stacks.

"Heat Sensitive Material" shall mean materials which cannot consistently be exposed to temperatures greater than 203°F.

"Hotwell" shall mean the reservoir of a condensing unit receiving the warm condensate from the condenser.

"Hydrocarbon" shall mean any organic compound of carbon and hydrogen only.

"Incinerator" shall mean any equipment, device or contrivance and all appurtenances thereof used for the destruction by burning of solid, semisolid, liquid, or gaseous combustible wastes.

"Interior Base Coat" shall mean a coating applied by roller coater or spray to the interior of a can to provide a protective lining between the can metal and product.

"Interior Body Spray" shall mean a coating sprayed on the interior of a can to provide a protective film between the product and the can.

"Intermediate Vapor Control System" shall mean a vapor control system that employs an intermediate vapor holder to accumulate vapors displaced from tanks during filling. The control device treats the accumulated vapors only during automatically controlled cycles.

"Internal Floating Roof" shall mean a cover or roof in a fixed roof tank which rests upon or is floated upon the petroleum liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

"Knife Coating" shall mean the application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.

"Large Appliances" shall mean doors, cases, lids, panels, and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other similar products.

"Leaking Component" shall mean any source which has a VOC concentration exceeding 10,000 parts per million by volume. These sources include, but are not limited to, pumping seals, compressors seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open ended pipes. Excluded from these sources are valves which are not externally regulated.

"Light-Duty Trucks" shall mean any motor vehicles rated at 8,500 pounds gross weight or less which are designed primarily for the purpose of transportation or are derivatives of such vehicles.

"Liquid Service" shall mean equipment which processes, transfers or contains a VOC or mixture of VOCs in the liquid phase.

"Liquid-Mounted Seal" shall mean a primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof around the circumference of the tank.

"Loading Rack" shall mean an aggregation or combination of gasoline loading equipment arranged so that all loading outlets in the combination can be connected to a tank truck or trailer parked in a specified loading space.

"Low Solvent Coating" shall mean coatings which contain less organic solvent than the conventional coatings used by the industry. Low solvent coatings include water-borne, higher solids, electrodeposition and powder coatings.

"Magnet Wire Coating" shall mean the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

"Maximum Process Weight Per Hour" shall mean the equipment manufacturers or designers guaranteed maximum (whichever is greater) process weight per hour.

"Metal Furniture Coating" shall mean the surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.

"Modification" shall mean any physical change in, or change in the method of operation of, an affected source which increases the amount of any air contaminant (to which a rule or regulation applies) emitted by such source or which results in the emission of any air contaminant (to which a rule or regulation applies) not previously emitted, except that:

(a) routine maintenance, repair, and replacement shall not be considered physical changes; and

(b) the following shall not be considered a change in the method of operation:

(1) an increase in the production rate;

(2) an increase in hours of operation; and

(3) use of an alternative fuel or raw material.

"Motor Vehicle" shall mean a self-propelled device in or upon or by which, any person or property is, or may be, transported or drawn upon a public highway.

"Multiple Chamber Incinerator" shall mean any incinerator consisting of three or more refractory lined combustion chambers in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned.

"Natural Finish Hardwood Plywood Panels" shall mean panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

"New Source" shall mean any source built or installed on or after the date of initial adoption of an applicable rule or regulation and any source existing at said stated time which later undergoes modification. Any source moved to other premises involving a change of location after the date of initial adoption of an applicable rule or regulation shall be considered a new source. This definition of new source is not applicable to Chapters 13 and 14 of these Rules and Regulations. (amended November 9, 2000)

"Odor" shall mean smells or aromas which are unpleasant to persons, or which tend to lessen human food and water intake, interfere with sleep, upset appetite, produce irritation of the upper respiratory tract, or cause symptoms of nausea, or which by their inherent chemical or physical nature, or method of processing, are, or may be detrimental or dangerous to health. Odor and smell are used interchangeably herein.

"Opacity" shall mean the degree by which emissions reduce the transmission of light and obscure the view of the background.

"Open Burning" shall mean the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the ambient air without passing through an adequate stack, duct, or chimney.

"Open Top Vapor Degreasing" shall mean the batch process of cleaning and removing soils from surfaces by condensing solvent vapor on the colder parts.

"Operating Time" shall mean the number of hours per year that a source conducts operations.

"Organic Material" shall mean a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and

ammonium carbonate.

"Oven" shall mean a chamber within which heat is used to bake, cure, polymerize, and/or dry a surface coating.

"Overvarnish" shall mean a coating applied directly over ink to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion.

"Owner or Operator" shall mean any person who owns, leases, operates, controls, or supervises an affected facility, article, machine, equipment, other contrivance, or source.

"Packaging Rotogravure Printing" shall mean printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into containers and labels for articles to be sold.

"Paper Coating" shall mean coatings put on paper and pressure sensitive tapes regardless of substrate. Related web coating processes on plastic film and decorative coatings on metal foil are included in this definition. Paper coating includes, but is not limited to, application by impregnation or saturation or by the use of roll, knife, or rotogravure coating.

"Particulate Matter" shall mean finely divided material, except uncombined water, which is a liquid or a solid at the conditions of the applicable test method.

"Passenger Type Tires" shall mean agricultural, airplane, industrial, mobile home, light and medium duty truck, and passenger vehicle tires with a bead diameter up to 20.0 inches and cross section dimension up to 12.8 inches.

"Penetrating Prime Coat" shall mean an application of low-viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. The prime penetrates the base and plugs the voids, hardens the top, and helps bind it to the

overlying asphalt layer.

"Person" shall mean the State, any individual, partnership, firm, association, municipality, public or private corporation or institution, political subdivision or agency of the State, including any Environmental Improvement Authority established pursuant to Act Number 1117, Regular Session of 1969 (General Acts 1969, P. 2060), any trust, estate, or any other legal entity and any successor, representative, agent, or agency of the foregoing, the United States or any department, agency or instrumentality of the executive, legislative or judicial branches of the Federal Government.

"Petroleum Liquids" shall mean crude oil, condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

"Petroleum Refinery" shall mean any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

"PM_{10}" means 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, Part 50, Title 40 Code of Federal Regulations and designated in accordance with Part 53, Title 40 Code of Federal Regulations or by an equivalent method designated in accordance with Part 53, Title 40 Code of Federal Regulations.

"PM_{10} Emission" means 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 test method.

"Pneumatic Rubber Tire Manufacture" shall mean the production of pneumatic rubber passenger type tires on a mass production basis.

"PPM" shall mean parts per million by volume.

"Prime Coat" shall mean the first film of coating applied in a multiple coat operation.

"Printed Interior Panels" shall mean panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.

"Process" shall mean any action, operation, or treatment of materials, including handling and storage thereof, which may cause discharge of an a contaminant, or contaminants, into the atmosphere, but excluding fuel burning and refuse burning.

"Process Weight" shall mean the total weight in pounds of all materials introduced into any specific process which may cause any discharge into the atmosphere.

"Process Weight Per Hour" shall mean the total weight of all materials introduced into any specific process that may cause any discharge of particulate matter. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. For a cyclical or batch operation, the process weight per hour will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process weight per hour will be derived by dividing the process weight for a typical period of time by that time period.

"Production Equipment Exhaust System" shall mean a device for collecting and directing out of the work area VOC fugitive emissions from reactor openings, centrifuge openings, and other vessel openings, for the purpose of protecting workers from excessive VOC exposure.

"Publication Rotogravure Printing" shall mean printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

"Quench Area" shall mean a chamber or enclosure where material exiting an oven is cooled.

"Reactor" shall mean a vat or vessel, which may be jacketed to permit temperature control, designed to contain chemical reactions.

"Refinery Fuel Gas" shall mean any gas which is generated by a petroleum refinery process unit and which is combusted, including any gaseous mixture of natural gas and fuel gas.

"Refinery Unit" shall mean a set of components which are a part of a basic process operation, such as: distillation, hydrotreating, cracking or reforming of hydrocarbons.

"Refuse" shall mean matter consisting of garbage, rubbish, ashes, street debris, dead animals, abandoned vehicles, industrial wastes, demolition wastes, construction wastes, special wastes, or sewage treatment residue.

"Reid Vapor Pressure" shall mean a vapor pressure specification for volatile crude oil and volatile nonviscous petroleum liquids except liquid petroleum gases as determined by American Society for Testing and Materials. The pressure approximates the absolute vapor pressure of the liquid.

"Roll Coating" shall mean the application of a coating material to a substrate by means of hard rubber or steel rolls.

"Roll Printing" shall mean the application of words, designs and pictures to a substrate usually by means of a series of hard rubber or steel rolls, each with only partial coverage.

"Rotogravure Coating" shall mean the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.

"Rotogravure Printing" shall mean the application of words, designs and pictures to a substrate by means of a roll printing technique which involves intaglio or recessed image areas in the form of cells.

"Separation Operation" shall mean a process that separates a mixture of compounds and solvents into two or more components. Specific mechanisms include extraction, centrifugation, filtration, and crystallization.

"Shutdown" shall mean the cessation of operation of affected source or emission control equipment.

"Single Coat" shall mean one film of coating applied to a metal surface.

"Solvent Metal Cleaning" shall mean the process of cleaning soils from metal surfaces by cold cleaning, open top vapor degreasing, or conveyorized degreasing.

"Source" shall mean any building, structure, facility, installation, article, machine, equipment, device, or other contrivance which emits or may emit any air contaminant. Any activity which utilizes abrasives or chemicals for cleaning or any other purpose (such as cleaning the exterior of buildings) which emits air contaminants shall be considered a source.

"Splash Filling" shall mean the filling of a tank truck or stationary tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

"Standard Conditions" shall mean a temperature of 68°F and a pressure of 29.92 inches of mercury.

"Start-up" shall mean the setting in operation of an affected source for any purpose.

"Storage Tank Capacity" shall mean the tank manufacturer's design capacity. Storage tank and storage vessel shall be equivalent in meaning.

"Submerged Fill Pipe" shall mean any fill pipe, the

discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank, or when applied to a tank which is loaded from the side, shall mean any fill pipe of which the top of the discharge opening is not over 18 inches from the bottom of the tank.

"Synthesized Pharmaceutical Manufacturing" shall mean manufacture of pharmaceutical products by chemical synthesis.

"Thin Particleboard" is a manufactured board 1/4 inch or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.

"Three-piece Can Side-Seam Spray" shall mean a coating sprayed on the exterior and interior of a welded, cemented, or soldered seam to protect the exposed metal.

"Tile Board" shall mean paneling that has a colored waterproof surface coating.

"Topcoat" shall mean the final film of coating applied in a multiple coat operation.

"Total Reduced Sulfur (TRS)" shall mean hydrogen sulfide, mercaptans, dimethyl sulfide, dimethyl disulfide,and any other organic sulfides present.

"Total Suspended Particulate" means particulate matter as measured by the method described in Appendix B of Part 50 Title 40 Code of Federal Regulations.

"Transfer Efficiency" shall mean the efficiency of a surface coating application system to deposit coating solids on a substrate. The transfer efficiency of an application system is determined by dividing the volume of coating solids deposited on a substrate by the total volume of coating solids used.

"Tread-end Cementing" shall mean the application of cement to the tire tread ends.

"True Vapor Pressure" shall mean the equilibrium partial pressure exerted by a stored petroleum liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from External Floating Roof Tanks", Second Edition, February 1980.

"Turnaround" shall mean the procedure of shutting a refinery unit down after a run to do necessary maintenance and repair work and putting the unit back on stream.

"Two-Piece Can Exterior End Coating" shall mean a coating applied by roller coating or spraying to the exterior of a can to provide protection to the metal.

"Uncombined Water" shall mean any water droplets or water vapor condensate that does not contain any other solid or liquid particulate matter attached to the water droplets.

"Undertread Cementing" shall mean the application of cement to the underside of a tire tread.

"Vacuum Producing System" shall mean any reciprocating, rotary, or centrifugal blower or compressor or any jet ejector or device that takes suction from a pressure below atmosphere and discharges against atmospheric pressure.

"Valves Not Externally Regulated" shall mean valves that have no external controls, such as in-line check valves.

"Vapor Balance System" shall mean a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

"Vapor Control System" shall mean a system that prevents release to the atmosphere of at least ninety percent (90%) by weight of organic compounds in the

vapors displaced from a vessel during transfer of gasoline.

"Vapor Collection System" shall mean a vapor transport system which uses direct displacement by the liquid being transferred to force vapors from the vessel being loaded into either a vessel being unloaded, or a vapor control system, or a vapor holding tank.

"Vapor-Mounted Seal" shall mean any primary seal mounted continuously around the circumference of the tank. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof.

"Vapor Recovery System" shall mean a system that prevents release to the atmosphere of at least 90 percent by weight of organic compounds in the vapor displaced from a tank during the transfer of organic materials.

"Vinyl Coating" shall mean to apply a decorative or protective or functional topcoat or printing on vinyl coated fabric or vinyl sheets. Vinyl plastisol shall not be considered a vinyl coating when it is applied to a fabric to form the substrate that is subsequently coated.

"Volatile Organic Compound (VOC)" shall mean any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such organic compound other than the following:
Methane;
Ethane;
Methyl Chloroform (1,1,1-Trichloroethane);
Methylene Chloride (Dichloromethane);
CFC-11 (Trichlorofluoromethane);
CFC-12 (Dichlorodifluoromethane);
HCFC-22 (Chlorodifluoromethane);
HFC-23 (Trifluoromethane);
CFC-114 (1,2-dichloro 1,1,2,2-Tetrafluoroethane);
CFC-115 (Chloropentafluoroethane);
HCFC-123 (1,1,1-Trifluoro-2,2-dichlororethane);

HCFC-124 (2-Chloro-1,1,1,2-tetrafluoroethane);
HFC-125 (Pentafluoroethane);
HFC-134 (1,1,2,2-Tetrafluoroethane);
HFC-134a (1,1,1,2-Tetrafluoroethane);
HCFC-141b (1,1-Dichloro-1-fluoroethane);
HCFC-142b (1-Chloro-1,1-difluoroethane);
HFC-143a (1,1,1-Trifluoroethane);
HFC-152a (1,1-Difluoroethane);
CFC-113 (1,1,2-Trichloro-1,2,2-Trifluoroethane);
Parachlorobenzotrifluoride (PCBTF);
Cyclic, branched, or linear completely methylated siloxanes;
Acetone;
Perchloroethylene (tetrachloroethylene);
HCFC-225ca (3,3-dichloro-1,1,1,2,2-pentafluoropropane);
HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane);
HFC-43-10mee (1,1,1,2,3,4,4,5,5,5- decafluoropentane);
HFC-32 (Difluoromethane);
HFC-161 (Ethylfluoride);
HFC-236fa (1,1,1,3,3,3-Hexafluoropropane);
HFC-245ca (1,1,2,2,3-Pentafluoropropane);
HFC-245ea (1,1,2,3,3-Pentafluoropropane);
HFC-245eb (1,1,1,2,3-Pentafluoropropane);
HFC-245fa (1,1,1,3,3-Pentafluoropropane);
HFC-236ea (1,1,1,2,3,3-Hexafluoropropane);
HFC-365mfc (1,1,1,3,3-Pentaflurorobutane);
HCFC-31 (Chlorofluoromethane;
HCFC-123a (1,2-Dichloro-1,1,2-trifluoroethane);
HCFC-151a (1-Chloro-1-fluoroethane);
$C_4F_9OCH_3$ (1,1,1,2,2,3,3,4,4-Nonafluoro-4-methoxybutane);
$(CF_3)_2CFCF_2OCH_3$ (2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane);
$C_4F_9OC_2H_5$(1-Ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane);
$(CF_3)_2CFCF_2OC_2H_5$ (2-Ethoxydifluoromethyl)- 1,1,1,2,3,3,3-heptafluoropropane);
Methyl Acetate;
HFE-7000 (n-$C_3F_7OCH_3$, 1,1,1,2,2,3,3,-heptafluoro-3 methoxy-propane);
HFE-7500 (3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro- 2-(trifluoromethyl) hexane);
HFC-227ea (1,1,1,2,3,3,3,-heptafluoropropane)
Methyl formate ($HCOOCH_3$)

1,1,1,2,2,3,4,5,5,5,- decafluoro-3-methoxy-4-trifluoromethyl- pentane (HFE- 7300);
Propylene carbonate;
Dimethyl carbonate;
trans-1,3,3,3-tetrafluoropropene;
HFE-134 (HCF_2OCF_2H);
HFE-236cal2 ($HCF_2OCF_2OCF_2H$);
HFE-338pcc13 ($HCF_2OCF_2CF_2OCF_2H$);
H-Galden 1040x or H-Galden ZT130 (or 150 or 180) ($HCF_2OCF_2OCF_2CF_2OCF_2H$);
Trans 1-chloro-3,3,3-trifluoroprop-1-ene (SolsticeTM 1233zd(E));
HFO-1234yf (2,3,3,3-tetrafluoropropene);
2-amino-2-methyl-1-propanol; and

Perfluorocarbon compounds which fall into these four classes –
(1) Cyclic, branched, or linear completely flourinated alkanes,
(2) Cyclic, branched, or linear completely fluorinated ethers with no unsaturations,
(3) Cyclic, branched, or linear completely fluorinated tertiary amines with no unsaturations,
(4) sulfur containing perfluorcarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

The heretofore mentioned excluded organic compounds have been determined to have negligible photochemical reactivity by the EPA Administrator. For purposes of determining compliance with emission limits under Chapter 8, VOC shall be measured by the approved test methods contained in Chapter 8. Where such a method also inadvertently measures the heretofore mentioned negligibly photochemical reactive organic compounds with the reactive organic compounds, an owner or operator may exclude these negligibly reactive compounds when determining compliance with an emission limit using EPA-approved test methods and procedures.

The following compound(s) are VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but are not VOC for purposes of VOC emissions

limitations or VOC content requirements: t-butyl acetate. (Amended March 10, 2016)

"Water-based Sprays or Compounds" shall mean compounds in which solids, water, and emulsifiers (non-organic) constitute at least eighty-eight percent (88%) by weight of the compound.

"Waxy, Heavy Pour Crude Oil" shall mean a crude oil with a pour point of 50°F or higher as determined by the American Society for Testing Materials Standard D97-66, "Test for Pour Point of Petroleum Oils".

1.4 The Air Pollution Control Program within the City of Huntsville is hereby continued. The Director shall administer these regulations and the program in accordance with these regulations and the program in accordance with their terms and in accordance with the rules and policies of the Board adopted pursuant hereto, and subject to the general supervision and control of the Mayor.

1.5 Powers and Duties of the Air Pollution Control Board. The Board shall have the powers, duties, and authority duly delegated by these rules and regulations, as authorized by ordinance of the City of Huntsville, or as otherwise provided by law.

1.6 Availability of Records and Information.

1.6.1 Public Inspection of Records. Except as is provided in this Part, any records, reports or information obtained under the Act or these regulations and the official records of the Board shall be available to the public for inspection. Requests for permission to inspect such records should state the general subject matter of the records sought to be inspected to permit identification and location.

1.6.2 Exceptions. Upon a showing satisfactory to the Director by any person that records, reports, or information, or particular part thereof, (other than emission data) to which the Director has access if made public, would divulge production or sales figures or methods, processes or production unique to such person, or would otherwise tend to affect adversely the competitive

position of such person by revealing trade secrets, the Board and the Director shall consider such record, report, or information or particular portion thereof confidential in the administration of the Act and these rules and regulations.

1.6.3 Creation of Record. Records will not be created by compiling selected items from other documents at the request of a member of the public, nor will records be created to provide the requester with data such as ratios, proportions, percentages, frequency distribution, trends, correlations, or comparisons.

1.6.4 Denial of Request for, or Non-existence of Information. If it is determined pursuant to this part that requested information will not be provided or that, to the best knowledge of the Director requested information does not exist the Director shall notify in writing the party requesting the information that the request is either denied or cannot be fulfilled, and the reasons thereof.

1.6.5 Copies of Documents. If it is determined that information requested may be disclosed, the requesting party shall be afforded the opportunity to obtain copies of the documents containing such information. If copies of information are requested, the Director may furnish said copies at a price to be set by the Director that would compensate for the cost of producing the requested copies.

1.6.6 Disclosure of Information. Nothing herein shall be construed to prevent disclosure of such report, record or information to Federal or other agencies or State representatives as necessary for purposes of administration of the Program or of any Federal or State Air Pollution Control Agencies or when relevant in any proceeding under the Act or these regulations.

1.6.7 Correlation of Information. As soon as practicable, the Director shall provide for public availability emission data reported by source owners or operators or otherwise obtained by the Director. Such emission data shall be correlated with applicable emission limitations or other measures. As used in this section,

"correlated" means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emissions allowable under these rules and regulations.

1.7 Ambient Air Quality Standards.

1.7.1 Primary and Secondary Standards. The National Primary Ambient Air Quality Standards and National Secondary Ambient Air Quality Standards and accompanying appendices of reference methods, set forth in Part 50 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised, are hereby incorporated and made a part of these regulations, and shall apply throughout the city.

1.7.2 Policy. It is the objective of the City to obtain and maintain the ambient air quality standards of this Part in achieving the policy and purpose of the act and as required by the Federal Act. The adoption hereby of the national primary and secondary ambient air quality standards shall not be considered in any manner to allow significant deterioration of existing air quality in any portion of the city.

1.7.3 Attainment of Primary Standard. These rules and regulations and the administration of the Air Pollution Control Program by the Director shall provide for the attainment of the National Ambient Air Quality Standards throughout the city as expeditiously as practicable, but in no case later than three years after the date of initial adoption of these rules and regulations or within the time limits specified by Section 110(a) of the Clean Air Act, as amended (91 Stat. 685), whichever is later.

1.7.4 Attainment of Secondary Standard. To the extent practicable and feasible, these rules and regulations and the administration of the Air Pollution Control Program shall strive for the attainment of the National Secondary Ambient Air Quality Standards throughout the city concurrently with the attainment of the National Primary Ambient Air Quality Standard as provided in Section 1.7.3.

1.8 Right of Entry and Inspection. The Director or his authorized representative may enter and inspect any

property, premises or place on or at which an air contaminant source is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with these Rules and Regulations. No person shall refuse entry or access to the Director or his authorized representative who request entry for the purpose of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection. If requested, the owner or operator shall receive a report from the Director which sets forth the findings of the inspection with respect to compliance status. (adopted November 9, 1993)

1.9 Monitoring, Records, Reporting. (Amended March, 1997)

1.9.1 The Director may require the owner or operator of any air contaminant source to establish and maintain such records; make such reports; install, use and maintain such monitoring equipment or methods; sample such emissions in accordance with such methods, at such locations, intervals and procedures as the Director shall prescribe; and provide such periodic emission reports as required in Section 1.9.2.

1.9.2 Required Reports. Records and reports as the Director shall prescribe on air contaminants or fuel shall be recorded, compiled and submitted on forms furnished by the Director. When forms are not furnished, then in formats approved by the Director. These may include but not be limited to any of the following:

(a) Emissions of particulate matter, sulfur dioxide, and oxides of nitrogen shall be expressed as follows: in pounds per hour and pounds per million BTU of heat input for fuel-burning equipment; in pounds per hour and pounds per 100 pounds of refuse burned for incinerators; and in pounds per hour and in pounds per hourly process weight or production rate or in terms of some other easily measured and meaningful process unit specified by the Director.

(b) Sulfur dioxide and oxides of nitrogen emission

data shall be averaged over a 24-hour period and shall be summarized monthly. Daily averages and monthly summaries shall be submitted to the Director biannually. Data shall be calculated daily and available for inspection at any time.

(c) Particulate matter emissions shall be sampled and submitted biannually.

(d) Visible emissions shall be measured continuously and records kept indicating total minutes per day in which stack discharge effluent exceeds 20 percent opacity. Data shall be summarized monthly and submitted monthly and submitted quarterly. Current daily results shall be available for inspection at any time.

(e) The sulfur content of fuels, as burned, except natural gas, shall be determined in accordance with current recognized ASTM procedures. Averages for periods prescribed by the Director shall be submitted biannually. Records shall be kept current and be available for inspection.

1.9.3 Applicable Sources. In addition to any specific sources or any class of sources designated by the Director, all point sources are subject to the reporting requirements of Section 1.9.2 of this Part.

1.9.4 Emissions Inventory Reporting Requirements. (adopted April 10, 2003)

(a) General. The requirements of this section serve to establish reporting requirements from point sources in order to meet the statewide emissions inventory reporting requirements under 40 CFR 51, Appendix A, as required by §§ 110(p) and 110(a)(2)(F)(ii) of the Clean Air Act, as amended.

(b) Definitions. For purpose of this section, the definitions in 40 CFR 51, Appendix A shall apply unless defined under this paragraph.

(1) "Point Source" means:

(i) A plant or facility which has one or more

non-mobile or stationary sources;

(ii) "Type A source" means large point sources with actual annual emissions greater than or equal to any of the emissions thresholds listed below.

Pollutant	Emissions Thresholds TPY
Sulfur oxides	≥ 2,500
VOC	≥ 250
NOx	≥ 2,500
CO	≥ 2,500
PM_{10}	≥ 250
$PM_{2.5}$	≥ 250
NH_3	≥ 250

(iii) "Type B source" means any point source with potential annual emissions greater than or equal to any of the emissions thresholds listed below.

Pollutant	Emissions Thresholds (TPY)
Sulfur oxides	≥ 100
VOC	≥ 100
NOx	≥ 100
CO	≥ 1,000 (If the source is located in an ozone nonattainment area, then the threshold is ≥ 100 TPY)
Lead	≥ 5
PM_{10}	≥ 100
$PM_{2.5}$	≥ 100
NH_3	≥ 100

(2) "Potential to Emit" shall have the same meaning ascribed in Chapter 3 of these Rules and Regulations.

(c) Applicability. This Section applies to all

owners or operators of point sources.

(d) Reporting requirements.

(1) The owner or operator of a point source shall submit emissions inventory data as follows:

(i) Annual reporting. Beginning with emission year 2002 and every year thereafter, for each owner or operator of a Type A source, the data specified in 40 CFR 51, Appendix A, Table 2A must be submitted to the Department by May 1 of the calendar year following the emission year being reported.

(ii) Triennial reporting. For each owner or operator of a Type B source, beginning with emission year 2002 and every third year thereafter, the data specified in 40 CFR 51, Appendix A, Table 2A must be submitted to the Department by May 1 of the calendar year following the emission year being reported.

(2) The data required under subparagraph (1) of this paragraph shall be submitted electronically to the Department in a format prescribed and provided by the Department.

1.10 Sampling and Testing Methods.

1.10.1 Methods. All required sampling and testing shall be made and the results calculated in accordance with sampling and testing procedures and methods approved by the Director. All required samples and tests shall be made under the direction of persons qualified by training and/or experience in the field of air pollution control.

1.10.2 Standard Methods. The Director to the extent practicable, shall recognize and approve the test methods and procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

1.10.3 The Director or his authorized representative may conduct tests and take samples of air contaminants, fuel, process material or other materials which affect

or may affect emission of air contaminants from any source. Upon request of the Director, the person responsible for the source to be tested shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants. If the Director or his authorized representative during the course of an inspection obtains a sample of air contaminant, fuel, process material, or other material, he shall give the owner or operator of the equipment or fuel facility a receipt for the sample obtained.

1.10.4 Report to Owner or Operator. At the conclusion of any inspection or conduction of any testing or sampling under this Part, if requested, the owner or operator of the premises shall receive a report setting forth all facts found which relate to compliance status with these rules and regulations.

1.11 Compliance Schedule.

1.11.1 Scope. Except as otherwise specified, compliance with the provisions of these rules and regulations shall be according to the time schedule of this Part.

1.11.2 New Sources. All new sources shall comply with the applicable rules and regulations of Chapter 5 et seq. within 60 days after achieving the maximum production rate at which the affected source will be operated, but not later than 120 days after initial start-up of such source, unless the Director specifies another period of time as a condition to the issuance of any permit under Chapter 3. (amended May 22, 1980)

1.11.3 Existing Sources. All existing sources not in compliance as of the date of initial adoption of an applicable rule or regulation contained in Chapter 5 et seq. shall be in compliance within 6 months of such initial date unless the owner or operator responsible for the operation of such source shall have submitted to the Director in a form and manner satisfactory to him, a control plan and schedule for achieving

compliance, such plan and schedule to contain a date on or before which full compliance will be attained, and such other information as the Director may require. Any such plan and schedule expected to extend over a period of 18 or more months from such initial date shall include provisions for periodic increments of progress toward full compliance. If approved by the Director, such dates shall be the dates on which such owner or operator shall achieve incremental progress and full compliance. The Director may require persons to submit subsequent periodic reports on progress in achieving compliance. In no event shall the control plan and schedule exceed 3 years from the date of initial adoption of an applicable rule or regulations, or May 31, 1975, whichever date occurs first. The provisions of this Section shall not apply to sources for which permits are required under Chapter 3.

1.11.4 Nothing in this Part shall relieve any person or any new or existing source from complying with the provisions of Chapters 1 and 2 of these rules and regulations.

1.12 Maintenance of Equipment and Reporting of Equipment Maintenance and Malfunctions. (Amended March, 1997)

1.12.1 Maintenance of Equipment. All air pollution control equipment, features, devices and capture systems operating pursuant to a permit issued by the Director shall be maintained in good working order.

1.12.2 Maintenance-Reporting. In the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:

(a) identification of the specific facility to be taken out of service as well as its location and permit number;

(b) the expected length of time that the air pollution control equipment will be out of service;

(c) the nature and quantity of emissions of air contaminants likely to occur during the shutdown period;

(d) measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and

(e) the reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.

1.12.3 Malfunction-Reporting. In the event that any emission source, air pollution control equipment, or related facility fails or breaks down in such a manner as to cause the emission of air contaminants in violation of these rules and regulations, the person responsible for such source, equipment, or facility shall notify the Director within 24 hours of such failure or breakdown and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the condition causing the failure or break-down has been corrected and such source, equipment, or facility is again in operation.

1.13 Prohibition of Air Pollution. No person shall permit or cause air pollution, as defined in Part 1.3 of this Chapter, by the discharge of any air contaminant for which no ambient air quality standards have been set under Section 1.7.1 (amended May 22, 1980)

1.14 Penalties and Citations (Amended March, 1997)

1.14.1 Any person who violates any provisions of these regulations or violates any determination or order of the Director or permit issued by the Director pursuant to these regulations shall be liable to a penalty, which penalty may be recovered by the City of Huntsville by either of the actions described in Paragraphs 1.14.1(a) and (b) below:

(a) issuance of an administrative order by the Director

as provided for in subdivision (2) of subsection 22-28-23(b) of the Act, or;

(b) in a civil action in the Circuit Court of Madison County and such person may also be enjoined from continuing such violation.

(c) Civil penalties assessed or recovered under Paragraphs 1.14.1(a) or (b) above shall not be less than $100.00 or exceed $25,000.00 for each violation, provided however, that the total penalty assessed in an order issued by the Director under paragraph 1.14.1(a) above shall not exceed $250,000.00. Each day such violation continues shall constitute a separate violation for purposes of this Section.

1.14.2 Any money penalty so recovered shall be deposited in the City Treasury of the City of Huntsville, Alabama, to be appropriated by the Governing Body only for air pollution control purposes.

1.14.3 It shall be the duty of the City Attorney of the City of Huntsville to bring such actions in the Circuit Court at the request of the Mayor or Governing body of the City of Huntsville, Alabama. The Huntsville Air Pollution Control Board may at its option make recommendations concerning the bringing of said actions to the Mayor or to the Mayor and Council of the city.

1.14.4 Any person who knowingly violates or fails or refuses to obey or comply with any provision of these regulations or knowingly submits any false information required by these regulations including knowingly making a false material statement, representation, or certification, or knowingly rendering inaccurate a monitoring device or method, upon conviction, shall be punished by a fine not to exceed ten thousand dollars ($10,000) for the violation and an additional penalty not to exceed ten thousand dollars ($10,000) for each day thereafter during which the violation continues and may also be sentenced to hard labor for the county for not more than one year.

1.14.5 The Director is hereby authorized to issue citations to any person violating any provisions of these

regulations. Said citation shall command said person to cease and desist from violating the provisions of these regulations. The citation shall specify the provision or provisions of these regulations alleged to be violated and shall specify generally the facts alleged to constitute a violation thereof. Said citation shall command the person to appear at a hearing in person or by attorney at a time and place specified before the Air Pollution Control Board and show cause why a prosecution for the violation of the provision or provisions of these regulations should not be commenced. No citation shall be issued for an appearance before the Air Pollution Control Board less than 10 days after the issuance thereof, except when an emergency air episode has been declared, in which case appearance may be required within 24 hours. The citation may be directed to a business or corporation or to the president, manager, superintendent, or other person in charge of the business or corporation. The citation may be issued by leaving a copy thereof at any office of the business or corporation or by leaving a copy with some person at said office or at the residence of the president, manager, superintendent, or other person in charge.

1.14.6 The issuance of a citation shall not be a condition precedent to the beginning of a prosecution under sections 1.14.1, 1.14.3, and 1.14.4 hereof. However, where a citation has been issued the accused shall be afforded an opportunity to be heard upon said citation before any prosecution is commenced hereunder. At the conclusion of the hearing of the citation, the Huntsville Air Pollution Control Board may cause a prosecution to be commenced for said violation in which case the Huntsville Air Pollution Control Board shall direct the Director to appear before a Magistrate authorized to take oaths and issue warrants of arrest and make affidavit setting out the findings of the Huntsville Air Pollution Control Board. The Magistrate shall forthwith issue a warrant of arrest for the party charged commanding any Sheriff or other officer of the state authorized by state law to execute warrants of arrest, to arrest the defendant and forthwith bring him before the Magistrate. The warrant shall be returnable to the court charge with jurisdiction to try misdemeanors committed in the City of Huntsville, Alabama. (amended January 23,

1986)

1.14.7 The testimony taken at any hearing before the Huntsville Air Pollution Control Board shall be under oath and may be recorded stenographically, but the parties shall not be bound by the strict rules of evidence prevailing in the courts of law and equity. True copies of any transcripts or of any other record made of or at such hearing shall be furnished to any party thereto upon request and on payment of the reasonable cost of making such transcript.

1.15 Circumvention. No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate these rules and regulations.

1.16 Severability. The provisions of these rules and regulations and the various applications thereof are declared to be severable and if any chapter, part, section, paragraph, subparagraph, subdivision, clause, or phrase of these rules and regulations shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgement shall not affect, impair or invalidate the remainder of these rules and regulations, but shall be confined in its operation to the chapter, part, section, paragraph, subparagraph, subdivision, clause, or phrase of these rules and regulations that shall be directly involved in the controversy in which such judgment shall have been rendered.

1.17 Relation Back to Amendments. Whenever any provision of an amendment relates, either directly or indirectly, to an already applicable rule or regulation set forth herein, the amendment relates back to the date of initial adoption or promulgation of such rules or regulation unless such amendment or the promulgating statement clearly evidence otherwise. (adopted May 22, 1980)

1.18 Bubble Provision. (adopted August 12, 1982)

1.18.1 Notwithstanding the specific emission

limitations contained in Chapter 5, 6, 7, and 9, the Director may allow a facility to reduce the level of control required at one source in exchange for an equal increase in the level of control required at another source. Approval of any such exchange shall not be granted unless it is consistent with the requirements of Federal and State law.

1.18.2 Any such approval granted will not be effective until it becomes a part of the approved State Implementation
Plan.

1.19 Stack Heights. (adopted November 9, 1993)

1.19.1 Definitions. For purposes of this Part, the following terms will have the meanings ascribed in this Section.

(a) "Emission limitation" and "emission standard" mean a requirement, established by the Department or the EPA Administrator, 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" means 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" means that the owner or operator had (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 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.

(d) "Dispersion technique" means any technique which attempts to affect the concentration of a pollutant in the ambient air by:

(1) Using that portion of a stack which exceeds good engineering practice stack height;

(2) Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or

(3) 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.

(4) The preceding sentence does not include:

(i) 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;

(ii) The merging of exhaust gas streams where:

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

B. 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

C. 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 Director 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 Director shall deny credit for the effects of such merging in calculating the allowable emissions for the source;

(iii) Smoke management in agricultural or silvicultural prescribed burning programs;

(iv) Episodic restrictions on residential wood burning and open burning; or

(v) Techniques under Subparagraph 1.19.1(d)(3) 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 means 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 permits or approvals required under 40 CFR 51 and 52, provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation:

$$H_g = 2.5H.$$

(ii) For all other stacks,

$$H_g = H + 1.5\ L,$$

where

H_g = 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,

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

provided that the Director 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 Director, 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 1.19.1(e) of this Part is defined for a specific structure or terrain feature and

(1) for purposes of applying the formulas provided in Subparagraph 1.19.1(e)(2) means 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 (½ mile), and

(2) for conducting demonstrations under Subparagraph 1.19.1(e)(3) means not greater than 0.8 km (½ 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 (h_t) 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 formula provided in Subdivision 1.19.1(e)(2)(ii) 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" is defined for the purpose of determining GEP stack height under Subparagraph 1.19.1(e)(3) and means:

(1) for sources seeking credit for stack height exceeding that established under Subparagraph 1.19.1(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 are 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 a NAAQS. For sources subject to the PSD program (Part 3.5 of this Chapter), and 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 emissions rate to be used in making demonstrations under this Rule 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 Director, 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 Subparagraph 1.19.1(e)(2), either:

(i) a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effects as provided in Subparagraph 1.19.1(g)(1), except that the emission rate specified elsewhere in these regulations (or, in the absence of such a limit, the actual emission rate) shall be used, or

(ii) the actual presence of a local nuisance caused by the existing stack, as determined by the Director; and

(3) for sources seeking credit after January 12, 1979, for a stack height determined under Subparagraph 1.19.1(e)(2) where the Director requires that 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 Subparagraph 1.19.1(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.

1.19.2 Stack Height Requirements. Before acting on any permit issued pursuant to the requirements of Chapter 3 of these Rules and Regulations, the Director shall require that 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 GEP or by any other dispersion technique, except as provided in Part 1.19.3.

1.19.3 Exemptions. The provisions of Part 1.19.2 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 Paragraphs 3.4.1(d) and 3.4.1(a), were carried out after December 31, 1970.

1.19.4 Existing Sources. If any existing source, after appropriate application of the preceding limitations and provisions, is found to exceed or potentially exceed a NAAQS or PSD increment, when operating within previously established emission limitations, the emissions limitations applicable to that source shall be modified so as to eliminate and prevent the exceedance.

1.19.5 New Sources. If any new source or source modification, after appropriate application of the

preceding limitations and provisions, is predicted to exceed a NAAQS or PSD increment when evaluated 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.

1.19.6 Modeling and Field Study Provisions. If any source provides a field study or fluid modeling demonstration proposing a GEP stack height greater than that allowed by Subparagraph 1.19.1(e)(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.

1.19.7 The actual stack height used or proposed by a source shall not be restricted in any manner by requirements of this Part.

1.20 Credible Evidence (adopted July 22, 1999)

1.20.1 Compliance Certification. Notwithstanding any other provision in the Air Pollution Control Rules and Regulations, an 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.

1.20.2 Enforcement. Notwithstanding any other provision in the Air Pollution Control Rules and 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 an owner or operator has violated or is in violation of any rule or standard in the Air Pollution Control Rules and Regulations.

CHAPTER 2. AIR POLLUTION EMERGENCY

2.1 Air Pollution Emergency. The Director is authorized and empowered to enforce or require enforcement of any provisions of this Chapter throughout the territorial limits of the City of Huntsville.

2.2 Episode Criteria. When the Director determines that conditions justify the proclamation of an air pollution episode stage, due to the accumulation of air contaminants in any place within the city, attaining levels which could, if sustained or exceeded, lead to a substantial threat to the health of persons, he shall be guided by the following criteria: (Amended April 23, 1992)

2.2.1 Episode stages shall be determined and declared upon the basis of average concentration recorded at any monitoring station in the city.

2.2.2 If contamination and meteorological conditions warrant, any advanced episode stage may be declared by the Director without first declaring a lesser degree of Alert or Watch. The Director shall, at his discretion, declare a lesser stage, the termination or the continuance of the advanced episode stage during such time when contamination and meteorological conditions moderate significantly after an advanced episode stage has been declared.

2.2.3 Episode Watch. The Director shall declare an Episode Watch when one or more of the following events take place:

(a) an Atmospheric Stagnation Advisory is issued by the National Weather Service, stating that atmospheric conditions marked by a slow moving high pressure system, light winds and temperature inversions are expected to affect the air shed of the City of Huntsville or portions thereof for the next 36 hours.

(b) a meteorological forecast that stagnant atmospheric conditions as described above could result in high air pollution levels in Huntsville or portions thereof.

(c) validated reports of abnormally high air pollution measurements, specifically, reaching or exceeding 50 percent of the Alert level of Section 2.2.4 for at least three consecutive hours at a given locality in the city.

2.2.4 Alert. The Director shall declare an Alert when any one of the following contaminant concentrations is measured at any monitoring site and when adverse meteorological conditions can be expected to remain at these levels or higher for the next twelve (12) hours or more unless control measures are taken:

(a) Sulfur Dioxide. Measured by continuous reference method analyzer or equivalent.

24-hour average, 0.30 ppm (800 ug/m^3)
(amended August 12, 1982)

(b) PM_{10}. Measured by a PM_{10} sampler, 24 hour accumulation.

24 hour average, 350 ug/m^3
(amended April 23, 1992)

(c) Carbon Monoxide. Measured by continuous reference method analyzer or equivalent.

8-hour average, 15 ppm (17 mg/m^3)
(amended August 12, 1982)

(d) Nitrogen Dioxide. Measured by continuous reference method analyzer or equivalent.

24-hour average, 0.15 ppm (282 ug/m^3) or
1-hour average, 0.6 ppm (1130 ug/m^3)
(amended August 12, 1982)

(e) Ozone. Measured by continuous reference method analyzer or equivalent.

1-hour average, 0.15 ppm (295 ug/m^3)
(amended August 12, 1982)

2.2.5 Warning. A Warning shall be declared by the Director when the concentrations of any of the following air contaminants measured at any monitoring site reach

the following levels, and when adverse meteorological conditions can be expected to remain at these levels or higher for the next 12 hours or more unless control measures are taken:

(a) Sulfur Dioxide. Measured by continuous reference method analyzer or equivalent.

24-hour average, 0.6 ppm (1600 ug/m^3)
(amended August 12, 1982)

(b) PM_{10}. Measured by a PM_{10} sampler, 24 hour accumulation.

24-hour average, 420 ug/m^3
(amended April 23, 1992)

(c) Carbon Monoxide. Measured by continuous reference method analyzer or equivalent.

8-hour average, 30 ppm (34 mg/m^3)
(amended August 12, 1982)

(d) Nitrogen Dioxide. Measured by continuous reference method analyzer or equivalent.

24-hour average, 0.30 ppm (565 ug/m^3)
1-hour average, 1.20 ppm (2260 ug/m^3)
(amended August 12, 1982)

(e) Ozone. Measured by continuous reference method analyzer or equivalent.

1-hour average, 0.40 ppm (800 ug/m^3)
(amended August 12, 1982)

2.2.6 Emergency. An Emergency shall be declared by the Director when the following concentrations of air contaminants have been reached or due to meteorological conditions can be expected to reach or exceed these levels at any monitoring site in the city for a period of twelve (12) hours or more unless control actions are taken:

(a) Sulfur Dioxide. Measured by continuous reference method analyzer or equivalent.

24-hour average, 0.8 ppm (2100 ug/m^3)
(amended August 12, 1982)

(b) PM_{10}. Measured by a PM_{10} sampler, 24 hour accumulation.

24-hour average, 500 ug/m^3
(amended April 23, 1992)

(c) Carbon Monoxide. Measured by continuous reference method analyzer or equivalent.

8-hour average, 40 ppm (46 mg/m^3)
(amended August 12, 1982)

(d) Nitrogen Dioxide. Measured by continuous reference method analyzer or equivalent.

24-hour average, 0.40 ppm (750 ug/m^3)
1-hour average, 1.60 ppm (3000 ug/m^3)
(amended August 12, 1982)

(e) Ozone. Measured by continuous reference method analyzer or equivalent.

1-hour average, 0.50 ppm (1000 ug/m^3)
(amended August 12, 1982)

2.2.7 Termination

(a) The status reached by application of the Episode Criteria of this part shall remain in effect until the criteria for that level are no longer met. At such time, the next lower status will be assumed and such changes declared by the Director. Specifically:

(1) when ambient contaminant concentrations fall below the criteria levels for the stage, and a downward trend of concentrations is established; and

(2) when meteorological conditions that attended the high concentrations are no longer called for in official weather predictions.

(b) A public declaration will take on one of the following forms:

(1) terminate "Emergency Status", resume "Warning Status" or "Alert Status"; whichever is appropriate.

(2) terminate "Warning Status", resume "Alert Status" or appropriate stage.

(c) Upon Termination of an "Episode Status", the Air Pollution Control Program will remain on internal "Episode Watch" until a return to normal operation is announced by the Director.

2.2.8 Status Declaration Authority. The Director or his duly authorized agent, shall have the authority to make an announcement of internal Episode Watch, and public declarations of Alert, Warning and Emergency Status.

2.3 Special Episode Criteria.

2.3.1 The Director shall have the authority to declare episodic conditions when the atmospheric concentration of a single contaminant or that of a specific locality within the city show elevated concentrations.

2.3.2 Specific Pollutant Situation.
When concentrations of one or two contaminants reach or exceed the defined criteria levels, and concentration of other contaminants remain substantially below 50 percent of Alert levels, and meteorological conditions are such that these specific contaminant concentrations can be expected to remain at the above levels for 12 hours or more or increase unless control action is taken, a Specific Alert, Warning, or Emergency Status shall be declared by the Director, naming the contaminants that meet the respective criteria. In such instances when two such contaminants meet different criteria, the Director shall declare the status for the episode having the higher level, and that an Episode Watch is being maintained on the remaining contaminants.

2.3.3 Specific Locality Situation.
The Director shall, when high concentrations of one or more contaminant measured at one monitoring site and not others and the effect is judged to originate from an identifiable source near the given site, shall declare

the appropriate local Alert, Warning, or Emergency Status for the delineated area and that an Episode Watch is in effect for any remaining portion of the area while meteorological conditions favor the maintenance or increase of said high concentration for at least 12 hours or more unless control action is taken.

2.4 Emission Reduction Plans. Upon declaring an Episode Watch, Alert, Warning, or Emergency, the Director shall order persons responsible for the operation of a source of air contaminants causing or contributing to such episode to take the general measures outlined in the Emergency Episode Plan for the City of Huntsville or revision thereof, as he deems appropriate, in addition to all specific source curtailments designated by him.

2.5 Emission Reduction Plans for Two Contaminants. The Status specific for two contaminants when the ambient concentrations of two contaminants simultaneously reach or exceed their respective Episode Criteria of this Chapter and meteorological conditions are such that contaminant concentrations can be expected to remain at those criteria levels for 12 or more hours or increase unless control actions are taken. When criteria levels correspond to different episode status for two contaminants, the Director shall declare the status of the higher of the two.

2.6 Emission Reduction Plans for General Episodes. The Director shall, in the event that ambient concentrations of three or more contaminants simultaneously reach or exceed their respective Episode Criteria and no improvements in meteorological conditions is forecast for the next 12 hours, declare a General Alert, Warning, or Emergency Status. In the event the criteria levels correspond to different statuses for each contaminant, the Director shall declare a general status corresponding to the highest individual status.

2.7 Emission Reduction Plan for Local Episodes.

2.7.1 The Director shall specify the area of the city affected when a Local Alert, Warning or Emergency Status is declared, or when an Accidental Episode for common contaminants occurs, based upon air quality and meteorological reports and predictions.

2.7.2 When the Director declares such a local episode, any person responsible for the operation from which excess emissions results, shall shut down such an operation and make repairs or alter the process as required to restore normal operations.

2.7.3 When the Director declares that a Local Alert, Warning, or Emergency Status is in effect for a delineated area, corresponding General Measures shall be applied as detailed in Part 2.4, depending upon which contaminant(s) is/are being emitted in excess.

2.8 Emission Reduction Plans for Other Sources.

2.8.1 Any person responsible for the operation of a source of air contaminants as determined by the Director shall prepare standby plans for reducing the emissions of air contaminants during periods of an Episode Alert, Warning, and Emergency. Standby plans shall be designed to reduce or eliminate emissions of air contaminants in accordance with the objectives set forth in Part 2.4.

2.8.2 Any person responsible for the operation of a source of air contaminants not designated by the Director shall when requested by the Director in writing, prepare standby plans for reducing the mission of air contaminants during periods of Episode Alert, Warning and Emergency. Standby plans shall be designed to reduce or eliminate emissions of air contaminants in accordance with the objectives set forth in Part 2.4.

2.8.3 Standby plans as required under Section 2.8.1 shall be in writing and identify the sources of air contaminants, the amount of reduction of contaminants and a brief description of the manner in which reduction will be achieved during Episodes of Alert, Warning, and Emergency.

2.8.4 During Episodes of Alert, Warning, and Emergency Status, standby plans as required by this Chapter shall be made available on the premises to any person authorized to enforce the provisions of applicable rules and regulations.

2.8.5 Standby plans as required by these rules and regulations shall be submitted to the Director upon request within 30 days of the receipt of such request;

such standby plans shall be subject to review and approval by the Director. If, in the opinion of the Director, a standby plan does not effectively carry out the objectives as set forth in these rules and regulations, the Director may disapprove it, state the reason for disapproval and order the preparation of an amended standby plan within the time period specified in the order.

2.9 Emergency Procedure.

2.9.1 Any other provisions of law to the contrary notwithstanding, if the Director finds that a generalized condition of air pollution exists and that it creates an emergency requiring immediate action to protect human health or safety, the Director shall order persons causing or contributing to the air pollution to reduce or discontinue immediately the emission of air contaminants, and such order shall fix a place and time, not later than twenty-four hours thereafter, for a hearing to be held before the Air Pollution Control Board. Not more than twenty-four hours after the commencement of such hearing, and without adjournment thereof, the Air Pollution Control Board shall affirm, modify or set aside the order of the Director.

2.9.2 In the absence of a generalized condition of air pollution of the type referred to in section 2.9.1, but if the Director finds that emissions from the operation of one or more air contaminant sources is causing imminent danger to human health or safety, he may order the person or persons responsible for the operation or operations in question to reduce or discontinue emissions immediately without regard to the provisions of standby plans. In such event, the requirements for hearing and affirmance, modification or setting aside of orders set forth in section 2.9.1 shall apply.

2.9.3 Nothing in this section shall be construed to limit any power which the Director, the Department of Environmental Management for the State of Alabama, the Governor or any other person may have to declare an emergency and act on the basis of such declaration, if such power is conferred by statute or constitutional provisions, or inheres in the office. (amended January 23, 1986)

2.9.4 In addition to, and without in any way limiting the foregoing, if the Director determines at any time that air pollution in Huntsville constitutes an emergency risk to the health of those present in the city , and that the resources of the Huntsville Air Pollution Control Board are not sufficient to abate said air pollution, such determination shall be communicated by telephone and in writing, with the factual findings on which such determination is based to the Director of the Department of Environmental Management or to the Environmental Protection Agency of the Federal Government. Such communication shall request assistance in the abatement of said air pollution emergency consistent with the provisions of Act 769, Alabama Legislature, Regular Session 1971, and the Federal Clean Air Act as amended. The Director may delegate to the Deputy Director the power to make said determinations and deliver the same to the Director of the Department of Environmental Management or the Environmental Protection Agency in the name of the Director. (amended January 23, 1986)

CHAPTER 3. PERMITS
(Amended March 26, 1998)

3.1 General Provisions.

3.1.1 Definitions. For the purposes of this Chapter only, the following words and phrases, unless a different meaning is plainly required by the content, shall have the following meanings: (Amended September 8, 2011)

"Affected source" means a source that includes one or more units subject to emission reduction requirements or limitations in Title IV of the Act.

"Affected States" are all States:

(1) Whose air quality may be affected by issuance, renewal or modification of a proposed major source operating permit and that are contiguous to the State of Alabama; or

(2) That are within 50 miles of the permitted source.

"Affected Unit" means any unit subject to emission reduction requirements or limitations under title IV of the Act.

"Air Permit" shall mean any permit issued pursuant to the regulations in Chapter 3 with the exception of Synthetic Minor Operating Permits and Major Source Operating Permits.

"Applicable Requirement" means all of the following as they apply to emissions units (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance but have future effective compliance dates):

(1) Any standard or other requirement provided forin Alabama's State Implementation Plan approved or promulgated by EPA through rulemaking in Part 51 of Title 40 in the Code of Federal Regulations (CFR) that implements the relevant requirements of the Federal Clean Air Act, including any revisions to that Plan promulgated in Subpart B of Part 52 of Title 40 in the Code of Federal Regulations;

(2) Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D, of the Federal Clean Air Act; (Air Pollution Prevention and Control, Prevention of Significant Deterioration and Plan Requirement for nonattainment areas);

(3) Any standard or other requirement in Chapter 13 of these Rules and Regulations (NSPS) or in Section 111(d) of the Federal Clean Air Act;

(4) Any standard or other requirement in Chapter 14 of these Rules and Regulations (NESHAPs), or any requirement concerning accidental release prevention under Section 112(r)(7) of the Federal Clean Air Act;

(5) Any standard or other requirement of the acid rain program under Title IV (Acid Deposition Control) of the Federal Clean Air Act or the regulations promulgated thereunder;

(6) Any requirements established pursuant to Section 504(b) or Section 114(a)(3) of the Federal Clean Air Act;

(7) Any standard or other requirement governing solid waste incineration under Section 129 of the Federal Clean Air Act;

(8) Any standard or other requirement for consumer and commercial products under Section 183(e) of the Federal Clean Air Act;

(9) Any standard or other requirement for tank vessels under Section 183(f) of the Federal Clean Air Act;

(10) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone (title VI of the Federal Clean Air Act, Stratospheric Ozone Protection) unless the Administrator has determined that such requirements need not be contained in a title V permit; and

(11) Any national ambient air quality standard as defined in Part 1.7 of these Rules and Regulations or

increment as defined in Section 3.5.14 of these Rules and Regulations or visibility requirement in Part 3.5 of these Rules and Regulations, but only as it would apply to temporary sources permitted pursuant to Section 3.9.8 of these Rules and Regulations.

"CO_2 equivalent emissions (CO_2e)" shall represent the amount of GHGs emitted as computed by the following:

(1) Multiplying the mass amount of emissions (TPY) for each of the six greenhouse gases in the pollutant GHGs by the gas's associated global warming potential as listed in Appendix B.

(2) Sum the resultant value determined in Subparagraph (1) above for each gas to calculate the TPY of CO_2e.

"Department" means the City of Huntsville Division of Natural Resources and Environmental Management.

"Designated Representative" means a responsible person or official authorized by the owner or operator of an Affected Unit to represent the owner or operator in matters pertaining to the holding, transfer, or disposition of allowances allocated to an Affected Unit, and the submission of and compliance with permits, permit applications, and compliance plans for the Affected Unit.

"Director" means the Director of the City of Huntsville Division of Natural Resources and Environmental Management or his authorized representative.

"Draft Permit" means the version of a permit for which the Department offers public participation or affected State review under Part 3.9 of this Chapter.

"Emissions Allowable under the Permit" means a federally enforceable permit term or condition determined at issuance of the permit to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

"Emissions Unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Section 112(b) of the Federal Clean Air Act. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV (Acid Deposition Control) of the Federal Clean Air Act.

"The EPA" or "the Administrator" means the Administrator of the EPA or his/her designee.

"Federal Clean Air Act" shall mean the Clean Air Act, as amended, 42 U.S.C. 7401, et seq.

"Final Permit" means the version of a permit issued by the Department that has completed all review procedures required by Part 3.9 of this Chapter.

"Fugitive Emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"General Permit" means a permit that meets the requirements of Section 3.9.7 of this Chapter.

"Greenhouse gases (GHGs)" means the aggregate of: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

"Insignificant Activity" generally means any air emissions or air emissions unit at a plant that has the potential to emit less than 5 tons per year of any criteria pollutant or less than 1000 pounds per year of any Hazardous Air Pollutant (i.e. any pollutant listed in Appendix G of ADEM Admin. Code R. 335-3). Subject to EPA review and approval, the Director may determine that certain types or classes of units may be considered insignificant at higher emission levels, or that, due to the nature of the pollutant(s) emitted, a unit may be considered significant at a lower emission rate. The Director shall maintain lists of air emissions or air emissions units which are considered to be insignificant without a determination of emission levels by the permittee. Changes to this list shall be subject to EPA review and approval. Activities subject to applicable requirements as defined in Paragraph (e) of this Section shall not be classified as insignificant. (Amended

November 9, 2000)

"Interim Approval" means conditional approval given by the Administrator to the Department that extends the implementation of Part 3.9 of this Chapter by up to two years.

"Major Source" means any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control) belonging to a single major industrial grouping and that are described in Subparagraphs (1) or (2) of this definition as follows (for the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e., all have the same two digit code) as described in the Standard Industrial Classification Manual, 1987):

(1) A major source under Section 112 of the Federal Clean Air Act, which is defined as:

(i) For pollutants other than radionuclides, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, in the aggregate, 10 tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to Section 112(b) of the Federal Clean Air Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as the Administrator may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or

(ii) For radionuclides, "major source" shall have the meaning specified by the Administrator by rule.

(2) A major stationary source of air pollutants, as defined in Section 302 of the Federal Clean Air Act, that directly emits or has the potential to emit, 100 tpy or more of any regulated air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by rule by the Administrator). The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of this Chapter, unless the source belongs to one of the following categories of stationary source:

- Coal cleaning plants (with thermal dryers);
- Kraft pulp mills;
- Portland cement plants;
- Primary zinc smelters;
- Iron and steel mills;
- Primary aluminum ore reduction plants;
- Primary copper smelters;
- Municipal incinerators capable of charging more than 250 tons of refuse per day; hydrofluoric, sulfuric, or nitric acid plants;
- Petroleum refineries;
- Lime plants;
- Phosphate rock processing plants;
- Coke oven batteries;
- Sulfur recovery plants;
- Carbon black plants (furnace process);
- Primary lead smelters;
- Fuel conversion plants;
- Sintering plants;
- Secondary metal production plants;
- Chemical process plants;
- Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- Taconite ore processing plants;
- Glass fiber processing plants;
- Charcoal production plants;
- Fossil-fuel fired steam electric plants of

more than 250 million British thermal units per hour heat input; or

All other stationary source categories regulated by a standard promulgated under Chapter 13 or Chapter 14 of these Rules and Regulations.

(3) No source shall be considered a major source for the purposes of this Chapter due solely to the emissions of greenhouse gases. (Amended March 10, 2016).

"Major Source Operating Permit" means any permit or group of permits that is issued, renewed, amended, or revised pursuant to Part 3.9 of this Chapter.

"Permit" means any permit issued pursuant to the requirements of this Chapter, including Air Permits, Synthetic Minor Operating Permits and Major Source Operating Permits.

"Permit Modification" means a revision to a permit that meets the requirements of 3.9.13 Paragraphs 3.9.11(c) or (d) of these Rules and Regulations. (amended March 24, 1994)

"Permit Revision" means any permit modification or administrative permit amendment.

"Potential to Emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source's potential to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator. This term does not alter or affect the use of this term for any other purposes under the Federal Clean Air Act, or the term "capacity factor" as used in title IV (Acid Deposition Control) of the Federal Clean Air Act or the regulations promulgated thereunder.

"Potential Major Source" shall mean any major source as defined in this Part whose actual emissions are less than the major source thresholds.

"Proposed Major Source Operating Permit" means the version of a permit that the Director proposes to issue and forwards to the Administrator for review in compliance with Section 3.9.13 of this Chapter.

"Regulated Air Pollutant" means the following:

(1) Nitrogen oxides or any volatile organic compounds;

(2) Any pollutant for which a national ambient air quality standard has been promulgated;

(3) Any pollutant that is subject to any standard promulgated under Section 111 of the Federal Clean Air Act;

(4) Any Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the Federal Clean Air Act; or

(5) Any pollutant subject to a standard promulgated under Section 112 or other requirements established under Section 112 of the Federal Clean Air Act, including sections 112(g), (j), and (r) of the Federal Clean Air Act, including the following:

(i) Any pollutant subject to requirements under Section 112(j) of the Federal Clean Air Act. If the Administrator fails to promulgate a standard by the date established pursuant to Section 112(e) of the Federal Clean Air Act, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to Section 112(e) of the Federal Clean Air Act; and

(ii) Any pollutant for which the requirements of Section 112(g)(2) of the Federal Clean Air Act have been met, but only with respect to the individual source subject to that Section 112(g)(2) requirement.

(6) As of July 1, 2011 and after, greenhouse gases as defined in this Part.

"Renewal" means the process by which a permit is

reissued at the end of its term.

"Responsible Official" means one of the following:

(1) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representatives is approved in advance by the Director;

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(3) For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this definition and this Chapter, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected sources:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions under title IV (Acid Deposition Control) of the Federal Clean Air Act or the regulations promulgated thereunder are concerned; and

(ii) The designated representative for any other purposes under this Chapter.

"Section 502(b)(10) Changes" are changes that contravene an express permit term. Such changes do not

include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements.

"Stationary Source" means any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any pollutant listed under Section 112(b) of the Federal Clean Air Act.

"Synthetic Minor Operating Permit" shall mean a permit which restricts a source's potential to emit so that it is a Synthetic Minor Source. Also, those sources whose actual emissions are less than or equal to 50 percent of any applicable major source thresholds and that also comply with the requirements of Part 3.8.1 shall be considered as holding a Synthetic Minor Operating Permit for purposes of complying with Part 3.1.2(c) until the Department amends this Rule in the future in accordance with the adoption of a Rule by the Environmental Protection Agency that codifies a position regarding the subject of this sentence in some form. (Amended March, 1997)

"Synthetic Minor Source" shall mean a source whose potential to emit is restricted to less than a major source threshold as defined in this Part.

"Trivial Activity" means any air emissions from a unit that is considered inconsequential, as determined by the Director. The Director shall maintain a list of air emission units that have been determined to have emissions which constitute trivial activity.

3.1.2 Permits.

(a) Any person building, erecting, altering, or replacing any article, machine, equipment or other contrivance, the use of which may cause the issuance of or an increase in the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, shall submit an application for an Air Permit at least 10 days prior to construction.

(b) Before any article, machine, equipment or other

contrivance described in paragraph 3.1.2(a) may be operated or used, authorization shall be obtained from the Director in the form of an Air Permit, unless exempted under Paragraph 3.1.2(h) or 3.3.10 of this Chapter. No Air Permit shall be granted for any article, machine, equipment or contrivance described in Paragraph 3.1.2(a), until the information required is presented to the Director and such article, machine, equipment or contrivance is altered, if necessary, and made to conform to the standards established by the Department.

(c) Any major source operating without a Major Source Operating Permit or a Synthetic Minor Operating Permit may continue to operate (or may restart) only if its owner or operator obtains a Major Source Operating Permit or a Synthetic Minor Operating Permit prior to a date to be set by the Director (or prior to restarting).

(d) Any article, machine, equipment, or other contrivance described in Paragraph 3.1.2(a) which is presently operating (or which is not presently operating but which is capable of being operated) without an Air Permit may continue to operate (or may restart) only if its owner or operator obtains an Air Permit, a Synthetic Minor Operating Permit or a Major Source Operating Permit prior to a date to be set by the Director (or prior to restarting).

(e) The Director shall have the authority to decide cases where an article, machine, equipment or other contrivance is not clearly subject to nor exempt from the requirement to obtain an Air Permit. In addition, the Director may rule that a particular article, machine, equipment, or other contrivance is subject to the requirement to obtain an Air Permit even though it is exempt from the system according to Paragraph 3.1.2(a) and Section 3.1.6 of this Part. The operator or builder of such an article, machine, equipment, or other contrivance may appeal the Director's classification to the Air Pollution Control Board, which shall overrule the Director only if it is shown that he acted arbitrarily and contrary to the purposes of the Act.

(f) Upon completion of construction by a new facility, the Director shall, within a reasonable period of time, dispatch an inspector to the facility in question. If the inspector determines that the facility

has been constructed according to the specifications as set forth under the Air Permit or that any changes to the facility would reduce or affect to an unsubstantial degree that quantity of air contaminants emitted by the facility, and if the Director agrees with this conclusion, then the Director shall authorize initial operation of the facility until an official inspection of the facility under actual operating conditions can be made and the results reviewed or until the Air Permit is suspended or revoked by the Director. The Director may authorize initial operation of the facility without an inspection if upon completion of the construction, an owner or operator familiar with the application for an Air Permit submits a letter to the Director testifying that the construction under application has been completed and is in accordance with the specification as set down in the Air Permit. The Director is empowered to reject that testimony if the Director decides that the owner or operator's qualifications are insufficient to allow him to accurately and completely assess the equipment in question. An owner or operator may appeal any such judgment to the Air Pollution Control Board.

(g) The Director may issue an Air Permit, a Synthetic Minor Operating Permit, or a Major Source Operating Permit subject to conditions which will bring the operation of any article, machine, equipment, or other contrivance within the standards of Part 3.3 in which case the conditions shall be specified in writing. Commencing construction or operation under such a permit shall be deemed acceptance of all the conditions specified. The Director shall issue a permit with revised conditions upon receipt of a new application, if the applicant demonstrates that the article, machine, equipment, or other contrivance can operate within the standards of Part 3.3 under the revised conditions.

(h) An existing facility which holds a Synthetic Minor Operating Permit issued under Part 3.8 of these Rules and Regulations or a Major Source Operating Permit issued under Part 3.9 of these Rules and Regulations is exempt from the requirement to obtain an Air Permit provided that:

(1) the Synthetic Minor Operating Permit is modified as required by Part 3.8 of these Rules and Regulations prior to the initial operation of the new or

modified sources, or

(2) the Major Source Operating Permit is modified as required by Part 3.9 of these Rules and Regulations and are not subject to the requirements of Part 3.4 of this Chapter, or

(3) for a modification which is subject to the requirements of Part 3.4 of this Chapter, the Major Source Operating Permit is issued prior to commencement of construction of the modification, and the Major Source Operating Permit fulfills all requirements of Part 3.4 of this Chapter, or

(4) the Major Source Operating Permit is modified as required by Part 3.9 of these Rules and Regulations and any modifications are not subject to Part 3.5 of this Chapter, or

(5) for a modification which is subject to Part 3.5 of this Chapter, the Major Source Operating Permit is issued prior to commencement of construction of the modification, and the Major Source Operating Permit fulfills all requirements of Part 3.5 of this Chapter.

3.1.3 Provisions of Sampling and Testing Facilities. A person operating or using any article, machine, equipment or other contrivance for which these rules and regulations require a permit shall provide and maintain such sampling and testing facilities as specified in the permit.

3.1.4 The holder of a permit under this Chapter shall comply with conditions contained in such permit as well as all applicable provisions of these rules and regulations.

3.1.5 Transfer. A permit issued under this Chapter shall not be transferable whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another.

3.1.6 Exemptions. From time to time the Director may specify certain classes or sizes of articles, machines, equipment, or other contrivances which would normally be subject to the requirements to obtain an Air Permit as

being exempt from the requirement to obtain such permits. Exempt sources are subject in every other way to these rules and regulations.

3.1.7 Display of Permit. A person who has been granted an Air Permit, a Synthetic Minor Operating Permit or a Major Source Operating Permit for any article, machine, equipment, or other contrivance shall keep such permit under file or on display at all times at the site where the article, machine, equipment, or other contrivance is located and will make such a permit readily available for inspection by any and all persons who may request to see it.

3.1.8 Permit Requirements to Alabama Department of Environmental Management. The Director shall provide the Director of the Alabama Department of Environmental Management:

(a) The opportunity to review all permit applications, the analysis of the permits, and proposed permit conditions at least ten days prior to date of issuance of an Air Permit or a Synthetic Minor Operating Permit, and at least 30 days prior to issuance of a Major Source Operating Permit; except certain classes of permits, as agreed upon between the Director and the Director of the Alabama Department of Environmental Management may be exempt from the ten day or 30 day period, whichever applies, provided files are maintained on all permits exempted from review by the Alabama Department of Environmental Management.

(b) A copy of Preliminary Determinations and Public Comment Notices for all Air Permits issued pursuant to Parts 3.4 and 3.5 at the time the notice is forwarded for publication in the newspaper.

3.1.9 Public Participation (amended March 26, 1998)

(a) Prior to issuance of an Air Permit or a Synthetic Minor Operating Permit, notice shall be given by publication in a newspaper of general circulation within the City of Huntsville, or in a City publication designed to give general public notice, and also to persons on a mailing list developed by the Department for persons desiring notice of permit action, including persons who have requested to be included on such a list, under the

following circumstances:

(1) Construction of a new facility or the initial operation of a new facility.

(2) The Director, at his discretion, may require Public Notification for any Air Permit application received in accordance with the requirements of this Part.

(3) The Director must require public notification for any Synthetic Minor Operating Permit application received in accordance with the requirements of Part 3.8, except that the Director, at his discretion, may require public notification for an application for renewal of a Synthetic Minor Operating Permit submitted in accordance with the requirements of paragraph 3.8.2(d) of this Chapter.

(b) Public comments will be received by the Department for a period of at least 15 days following the publication of the public notice. The Director may provide a longer period for receipt of public comments.

(c) Public Notice will be provided in accordance with the requirements of Parts 3.4 and 3.5 of this Chapter for all applications subject to the requirements of Parts 3.4 and 3.5.

(d) Public Notice will be provided in accordance with the requirements of Part 3.9 of this Chapter for Major Source Operating Permits.

(e) Public Notice will be provided in accordance with the requirements of Part 3.10 of this Chapter for all Major Source applications subject to the requirements for Control Technology Determinations in accordance with Clean Air Act Section 112(g).

(f) A copy of the Public Notice described in paragraph (a) above shall be provided to the Administrator prior to issuance of any Synthetic Minor Operating permit under Part 3.8 of these Rules and Regulations.

(g) Construction of any article, machine, equipment or other contrivance as described in Section 3.1.2(a) of

this Part shall not commence until after an Air Permit or Synthetic Minor Operating Permit is issued if a public notice is required under this Section. (adopted August 12, 2004).

3.2 Permit Procedure.

3.2.1 Applications. Every application for a permit shall be filed in the manner and form prescribed by the Director and shall give all the information necessary to enable the Director to make the determination required by Part 3.3.

3.2.2 Cancellation of Applications. A permit authorizing construction shall expire and the application shall be canceled two years from the date of issuance of the permit if the construction has not begun.

3.2.3 Action on Application. The Director shall act, within a reasonable time, on an application for a permit and shall notify the applicant in writing of its approval, conditional approval, or denial.

3.2.4 Denial of Application. In the event of a denial of a permit, the Director shall notify the applicant in writing of the reason therefor. Service of this notification may be made in person or by mail, and such service may be proved by the written acknowledgment of the persons served or affidavit of the person making the service. The Director shall not accept a further application unless the applicant has complied with the objections specified by the Director as its reasons for denial of the permit.

3.2.5 Revocation of Permits. Any permit granted by the Director may be revoked for any of the following causes:

(a) failure to comply with any conditions of the permit:

(b) failure to notify the Director prior to intended use or operation of any article, machine, equipment, or other contrivance subject to the requirements of Paragraph 3.1.2(a);

(c) failure to establish and maintain such records,

make such reports, install, use and maintain such monitoring equipment or methods; and sample such emissions in accordance with such methods at such locations, intervals and procedures as the Director may prescribe in accordance with Section 1.9.2;

(d) failure to allow the Director or his authorized representative upon proper identification:

(1) to enter any premises, at reasonable times, where any article, machine, equipment, or other contrivance described in Section 3.1.2 is located or in which any records are required to be kept under provisions of the permit and/or the rules and regulations.

(2) to have access to and copy any records required to be kept under provisions of the permit and/or the rules and regulations;

(3) to inspect any monitoring equipment or practices being maintained pursuant to the permit and/or the rules and regulations; and

(4) to have access to and sample any discharge of air contaminants resulting directly or indirectly from the operation of any article, machine, equipment, or other contrivance described in Section 3.1.2.

(e) failure to comply with the rules and regulations.

(f) for any other cause, after a hearing which establishes, in the judgment of the Director, that continuance of the permit is not consistent with the purpose of the Alabama Air Pollution Control Act or regulations under it, or is not consistent with the purposes of the Federal Clean Air Act or regulations under it. (amended July 26, 2007)

(g) failure to comply with the provisions of an administrative order issued by the Director concerning the permitted source or facility.

3.2.6 Expiration of Permits. Air Permits shall expire immediately following:

(a) the issuance of a Synthetic Minor Operating

Permit required by Part 3.8 of these Rules and Regulations or an Operating Permit required by Part 3.9 of these Rules and Regulations which pertains to the article, machine, equipment or other contrivance regulated by the Air Permit.

(b) the final denial of a Synthetic Minor Operating Permit required by Part 3.8 of these Rules and Regulations or of an Operating Permit required by Part 3.9 of these Rules and Regulations which pertains to the article, machine, equipment or other contrivance regulated by the Air Permit.

(c) the failure of a facility which has been issued an Air Permit to apply for a Synthetic Minor Operating Permit or modification to an existing Synthetic Minor Operating Permit as required by Part 3.8 of these Rules and Regulations or the failure of a facility which has been issued an Air Permit to apply for an Operating Permit or modification to an existing Major Source Operating Permit as required by Part 3.9 of these Rules and Regulations.

(d) for Air Permits issued after January 1, 1994, the date five years from the date of issuance unless an application for renewal of the Air Permit has been filed at least three months prior to the expiration date.

(e) for Air Permits issued prior to January 1, 1994, the Air Permit shall expire on January 1, 1995, or on the date five years from the date of issuance, whichever is later, unless an application for renewal has been filed at least three months prior to the expiration date.

3.3 Standards for Granting Permits. (amended September 8, 2011)

3.3.1 The Director shall deny a permit if the applicant does not show that every article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment, that it may be expected to operate without emitting or without causing to be emitted air contaminants in violation of these rules and regulations. Issuance of a permit shall not relieve the permittee from complying with any other applicable requirements not

contained in these Rules and Regulations, except as provided for in Section 3.9.9 of this Chapter.

3.3.2 The Director shall deny a permit if the applicant does not present, in writing, a plan whereby the emission of air contaminants by every article, machine, equipment, or other contrivance described in the permit application, will be reduced during the periods of an Air Pollution Alert, Air Pollution Warning, and Air Pollution Emergency in accordance with the provisions of Chapter 2, where such a plan is required.

3.3.3 Before a permit is granted, the Director may require the applicant to provide and maintain such facilities as are necessary for sampling and testing purposes in order to secure information that will disclose the nature, extent, quantity or degree of air contaminants discharged into the atmosphere from the article, machine, equipment, or other contrivance described in the permit. In the event of such a requirement, the Director shall notify the applicant in writing of the required size, number, and location of the sampling platform; the access to the sampling platform; and the utilities for operating and sampling and testing equipment.

3.3.4 The Director may also require the permit applicant to install, use, and maintain such monitoring equipment or methods, including enhanced monitoring methods prescribed under Section 504(b) or Section 114(a)(3) of the Federal Clean Air Act; sample such emissions in accordance with such methods, at such locations, intervals, and procedures as may be specified; and provide such information as the Director may require.

3.3.5 Before acting on an application for a permit, the Director may require the applicant to furnish further information or further plans or specifications.

3.3.6 If the Director finds that the article, machine, or other contrivance has been constructed not in accordance with the permit, and if the changes noted are of a substantial nature in that the amount of air contaminants emitted by the article, machine, equipment, or other contrivance may be increased, or in that the effect is unknown, then he shall revoke the permit. The Director shall not accept any further application for a

permit until the article, machine, equipment, or other contrivance has been reconstructed in accordance with said permit or until the applicant has proven to the satisfaction of the Director that the change will not cause an increase in the emission of air contaminants.

3.3.7 The Director shall deny a permit where he determines that the construction and operation of such source will interfere with attaining or maintaining any primary or secondary standard established by Section 1.7.1.

(a) A new source or modification will be considered to interfere with attaining or maintaining a standard when such source or modification would, at a minimum, exceed the following significance levels at any locality that does not or would not meet the National Ambient Air Quality Standards:

Pollutant	Averaging Time				
	Annual	24 hrs	8 hrs	3 hrs	1 hr
SO_2	1.0 µg/m^3	5 µg/m^3	--	25 µg/m^3	--
PM_{10}	1.0 µg/m^3	5 µg/m^3	--	--	--
$PM_{2.5}$	0.3 µg/m^3	1.2 µg/m^3	--	--	--
NO_2	1 µg/m^3	--	--	--	--
CO	--	--	0.5 mg/m^3	--	2 mg/m^3

(b) A proposed major source or major modification subject to this Paragraph may reduce the impact of its emissions upon air quality by obtaining sufficient emissions reductions to, at a minimum, compensate for its adverse ambient impact where this impact would otherwise cause or contribute to a violation of any national ambient air quality standard or exceed the significance levels of Paragraph (a) above. In the absence of such emission reductions, the Director shall deny the proposed construction.

(c) The requirements of this Section shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the

source or modification is located in an area designated as nonattainment pursuant to Section 107 of the Federal Clean Air Act.

3.3.8 Exceptions to Violations of Emission Limits. (amended March 24, 1994)

(a) The Director may, in the permit, exempt on a case by case basis any exceedances of emission limits or permit conditions which cannot reasonably be avoided, such as during periods of start-up, shut-down, and load change. For emission limits established by federal rules (e.g. NSPS, NESHAP, and MACT), exemptions may be granted only where provisions for such exemptions are contained in the applicable rule or its general provisions. (Amended November 9, 2000)

(b) Emergency Provision.

(1) An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God. These are situations that require immediate corrective action(s) to restore normal operation, and that cause the facility to exceed a technology based emission limitation set by the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include exceedances of the permit emission limitations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

(2) Exceedances of emissions limitations during emergencies at a facility may be exempted as being violations provided that:

(i) the permittee identifies the cause(s) of the emergency;

(ii) the permitted facility was being properly operated until such a time as the emergency occurred;

(iii) during the period of which the emergency occurred, the permittee took all reasonable steps to minimize levels of emissions that exceeded the standards, or other requirements of the permit;

(iv) the permittee submitted notice of the emergency to the Department within two (2) working days of the time when the emissions limitations were exceeded as a result of the emergency. This notice must include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. Within five (5) working days of the emergency, written documentation of the facts reported in the notice of the emergency shall be submitted to the Director; and

(v) The permittee immediately documented the emergency exceedance in an "Emergency Log", which shall be maintained for 5 years in a form suitable for inspection upon request by the Director.

(3) The Director shall be the determiner of whether an emergency has occurred.

(4) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

(5) An emergency shall constitute an affirmative defense. (amended November 9, 2000).

3.3.9 A determination may be made by the Director to deny a permit application if the applicant operates other permitted facilities or stationary sources within the state which are in substantial noncompliance as determined by the Director, until such noncompliance is corrected or if the Director determines that a permit that results in compliance with applicable air pollution control standards could not be issued, or if issued, could not be complied with.

3.3.10 The Director shall not issue a Major Source Operating Permit for solid waste incineration units combusting municipal waste subject to standards under section 129(e) of the Federal Clean Air Act for which the City of Huntsville is responsible, in whole or in part, for the design and construction or operation of the unit. Such units shall apply to the Director of the Alabama Department of Environmental Management for an Operating Permit in accordance with procedures and requirements established by the Alabama Department of Environmental Management.

3.4 Air Permits Authorizing Construction in or Near Nonattainment Areas. (amended September 8, 2011)

3.4.1 Applicability.

(a) The requirements of this Part apply to the construction of any new major stationary source (as defined in this Part) or any project at an existing major stationary source in or near an area designated as nonattainment under Sections 107(d) of the Clean Air Act for which the source or modification is major for the pollutant or its precursors for which the area is designated as nonattainment. If the source is not major for the pollutant or its precursors for which the area is designated as nonattainment, it shall comply with the requirements of Part 3.5 which would be applicable if the area were classified as attainment or unclassifiable under Sections 107(d)(1)(A)(ii) or (iii) of the Clean Air Act.

(b) The requirements of Sections 3.4.3 through 3.4.12 of this Part apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as this Part otherwise provides.

(c) No new major stationary source or major modification to which the requirements of Sections 3.4.3 through 3.4.12(c) of this Part apply shall begin construction without a permit that states that the major stationary source or major modification will meet those requirements.

(d) Except as otherwise provided in Paragraph 3.4.1(j) of this Part, and consistent with the definition of major modification contained in this Part, a project is a major modification for a regulated NSR pollutant only if it causes two types of emissions increases – a significant emissions increase (as defined in this Part), and a significant net emissions increase (as defined in this Part).

(e) Before beginning actual construction, the procedure for calculating whether a significant emissions increase will occur depends upon the type of emissions units being modified, according to Paragraphs 3.4.1(f)

through (i) of this Part. The procedure for calculating whether a significant net emissions increase will occur at the major stationary source is contained in the definitions of "significant" and "net emissions increase" in this Part. Regardless of any such preconstruction projections, a major modification can result only if the project causes a significant emissions increase and a significant net emissions increase.

(f) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference(s) between the projected actual emissions (as defined in this Part) and the baseline actual emissions (as defined in Subparagraphs (1) and (2) of the definition of "baseline actual emissions" in this Part), for each existing emissions unit, equals or exceeds the significant rate for that pollutant (see the definition of significant in this Part).

(g) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in this Part) from each new emissions unit following completion of the project and the baseline actual emissions (as defined in Subparagraph (3) of the definition of "baseline actual emissions" in this Part) of these units before the project equals or exceeds the significant rate for that pollutant (see the definition of significant in this Part).

(h) Actual-to-potential test for projects that only involve existing emission units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference(s) between the potential to emit (as defined in this Part) and the actual emissions (as defined in this Part), for each existing emissions unit, equals or exceeds the significant rate for that pollutant (see the definition of significant in this Part).

(i) Hybird test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to

occur if the sum of the emissions increases for each emissions unit, using the method specified in Paragraphs 3.4.1(f) through (h) above as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant rate for that pollutant (see the definition of significant in this Part).

(j) Any major stationary source subject to a plantwide applicability limit (PAL), as defined in Section 3.4.14 of this Part, for a regulated NSR pollutant shall comply with the requirements under Section 3.4.14 of this Part.

(k) The fugitive emissions of a stationary source shall not be included in determining for any purposes of this Part whether it is a major stationary source or major modification unless the source belongs to one of the following categories of stationary sources:

- Coal cleaning plants (with Thermal dryers);
- Kraft pulp mills;
- Portland cement plants;
- Primary zinc smelters;
- Iron and steel mills;
- Primary aluminum ore reduction plants;
- Primary copper smelters;
- Municipal incinerators capable of charging more than 250 tons of refuse per day;
- Hydrofluoric, sulfuric, or nitric acid plants;
- Petroleum refineries;
- Lime plants;
- Phosphate rock processing plants;
- Coke oven batteries;
- Sulfur recovery plants;
- Carbon black plants (furnace process);
- Primary lead smelters;
- Fuel conversion plants
- Sintering plants;
- Secondary metal production plants;
- Chemical processing plants (excluding ethanol production facilities that produce ethanol by natural fermentation);
- Fossil fuel boilers (or combination thereof)

totaling more than 250 million British thermal units per hour of heat input;

- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- Taconite ore processing plants;
- Glass fiber processing plants;
- Charcoal production plants;
- Fossil fuel fired steam electric plants of more than 250 British thermal units per hour heat input; and
- Any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Clean Air Act.

3.4.2 Definitions. For purposes of this Part only, the following terms will have meanings ascribed in this Section.

"Actual Emissions" shall mean the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with Subparagraphs (1) through (3) below, except that this definition shall not apply for establishing a PAL under Section 3.4.14 of this Part. Instead, the definitions of "baseline actual emissions" and "projected actual emissions" in this Part shall apply for this purpose.

(1) In general, actual emissions as of any given date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the given date and which is representative of normal source operation. The Director shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

(2) The Director may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.

(3) For any emissions unit which has not begun normal operations on the given date as determined in Subparagraph (1) above, actual emissions shall equal the potential to emit of the unit on that date.

"Allowable Emissions" shall mean the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to enforceable limits which restrict the operating rate, the hours of operation, or both) and the most stringent of the following:

(1) The applicable standards as set forth in 40 CFR Parts 60, 61, or 63;

(2) The applicable State Implementation Plan emissions limitation, including those with a future compliance date; or

(3) The emissions rate specified as an enforceable permit condition, including those with a future compliance date.

"Baseline Actual Emissions" shall mean the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with Subparagraphs (1) through (4) below.

(1) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The Director may allow the use of a different time period upon a determination that it is more representative of normal source operation.

(i) The average rate shall include fugitive emissions to the extent quantifiable, if appropriate under Section 3.4.1(k) of this Part, and emissions associated with startups and shutdowns.

(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any

emission limitation that was legally enforceable during the consecutive 24-month period.

(iii) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(iv) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by Subdivision (1)(ii) of this Subparagraph.

(2) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Department for a permit required under this Part, whichever is earlier.

(i) The average rate shall include fugitive emissions to the extent quantifiable, if appropriate under Paragraph 3.4.1(k) of this Part, and emissions associated with startups and shutdowns.

(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.

(iii) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is Part of a maximum achievable control technology standard that the

Administrator proposed or promulgated under 40 CFR Part 63, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of 40 CFR §51.165(a)(3)(ii)(G).

(iv) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for all the emissions units being_changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(v) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by Subdivisions (2)(ii)and (iii) of this Subparagraph.

(3) For a new emissions unit, (see the definition of "emissions unit" in this Part) the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero. During the first two years from the date which the emissions unit commenced operation, the baseline actual emissions shall equal the potential to emit for the unit. Thereafter, the unit will be considered an existing emissions unit and the baseline actual emissions will be determined in accordance with Subparagraph (1) above for an electric steam generating unit or Subparagraph (2) above for other emissions units.

(4) For a PAL for a stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in Subparagraph (1) of this Paragraph, for other existing emissions units in accordance with the procedures contained in Subparagraph (2) of this Paragraph, and for a new emissions unit in accordance with the procedures contained in Subparagraph (3) of this Paragraph.

"Begin Actual Construction" shall mean, in general, initiation of physical on-site construction activities on

an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying underground pipework, and construction of permanent storage structures. With respect to a change in method of operations, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

"Best Available Control Technology (BACT)" shall mean an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the Director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of BACT result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 or 61. If the Director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.

"Building, Structure, Facility, or Installation" shall mean all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., all have the same two digit code) as described in the Standard Industrial Classification Manual.

"Clean Coal Technology" shall mean any technology, including technologies applied at the pre-combustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

"Clean Coal Technology Demonstration Project" shall mean a project using funds appropriated under the heading "Department of Energy-Clean Coal Technology", up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

"Commence" as applied to construction of a major stationary source or major modification shall mean that the owner or operator has all necessary preconstruction approvals or permits (as defined in this Part) and either has:

(1) Begun, or caused to begin, a continuous program of actual on-site construction (see the definition of "begin actual construction" in this Part) of the source, to be completed within a reasonable time; or

(2) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

"Complete" shall mean, in reference to an application for a permit, that the application contains all of the information necessary for processing the application.

"Construction" shall mean any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in emissions.

"Continuous Emissions Monitoring System (CEMS)" shall mean all of the equipment that may be required to meet the data acquisition and availability requirements of this Part, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.

"Continuous Emissions Rate Monitoring System (CERMS)" shall mean the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).

"Continuous Parameter Monitoring System (CPMS)" shall mean all of the equipment necessary to meet the data acquisition and availability requirements of this Part, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O_2 or CO_2 concentrations), and to record average operational parameter value(s) on a continuous basis.

"Electric Utility Steam Generating Unit" shall mean any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

"Emissions Unit" shall mean any part of a stationary source which emits or would have the potential to emit any regulated NSR pollutant including an electric utility steam generating unit as defined in this Part. For purposes of this Part, there are two types of emissions units as described in Subparagraphs (1) and (2) below.

(1) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.

(2) An existing emissions unit is any emissions

unit that does not meet the requirements in Subparagraph (1) above.

"Enforceable" shall mean all limitations and conditions which are enforceable, including those requirements developed pursuant to 40 CFR Parts 60, 61, and 63, requirements within the State Implementation Plan, and any permit requirements established pursuant to Chapter 3 of these regulations.

"Federal Land Manager" shall mean, with respect to any lands in the United States, the Secretary of the department with authority over such lands.

"Fugitive Emissions" shall mean those emissions which could not reasonably pass through a stack, chimney, vent, roof monitor, or other functionally equivalent opening.

"Innovative Control Technology" shall mean any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or non-air quality environmental impacts.

"Lowest Achievable Emission Rate" (LAER) shall mean, for any source, the more stringent rate of emissions based on the following:

(1) The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or

(2) The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within a stationary source. In no event shall the application of the term allow a new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

"Major Modification" shall mean any physical change in or change in the method of operation of a major stationary source that would result in a significant (as defined in this Section) net emissions increase (as defined in this Section) of any regulated NSR pollutant.

(1) Any net emissions increase that is significant for VOC or NOx shall be considered significant for ozone.

(2) A physical change or change in the method of operation shall not include:

(i) Routine maintenance, repair and replacement;

(ii) Use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (P.L. 93-319, 15 U.S.C. 791 note) or any superseding legislation, or by reason of a natural gas curtailment plan pursuant to the Federal Power Act (June 10, 1920, P.L. 280, 16 U.S.C. 791a);

(iii) Use of an alternative fuel by reason of an order or rule under Section 125 of the CAA;

(iv) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(v) Use of an alternative fuel or raw material by a stationary source which:

(I) The source was capable of accommodating before December 21, 1976, unless such change would be prohibited under any enforceable permit condition which was established after December 21, 1976.

(II) The source is approved to use under any permit issued under the Federal Prevention of Significant Deterioration ("PSD") regulations (40 CFR 52.21) or under regulations of this Chapter;

(vi) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any enforceable permit condition which

was established after December 21, 1976.

(vii) Any change in ownership at a stationary source.

(viii) Reserved.

(ix) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(3) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under Section 3.4.14 of this Part for a PAL for that pollutant. Instead, the definition of "PAL Major Modification" in Section 3.4.14 shall apply.

"Major Stationary Source" shall mean:

(1) Any stationary source (as defined in this Section) that emits, or has the potential to emit (as defined in this Section) air pollutants at or above one or more of the following applicable thresholds:

Nonattainment Area Classification	NO_x	VOC	CO	SO_2	PM_{10}	$PM_{2.5}$
	All values expressed in TPY					
Ozone: Marginal and Moderate	100	100				
Ozone: Serious	50	50				
Ozone: Severe	25	25				
Ozone: Extreme	10	10				
CO (Other than Serious)			100			
CO: Serious, where stationary sources do not contribute significantly to CO levels.			100			
CO: Serious, where stationary sources do contribute significantly to CO levels.			50			
PM_{10} (Other than Serious)					100	

PM_{10} (Serious)					70	
$PM_{2.5}$	100			100		100
SO_2				100		
NO_x	100					

(2) Any physical change that would occur at a stationary source not otherwise qualifying under this Part as a major stationary source, if the changes would constitute a major stationary source by itself.

(3) A stationary source that is considered major for VOC or NOx shall be considered major for ozone.

"Necessary Preconstruction Approvals or Permits" shall mean those permits or approvals required under Alabama air quality control laws and regulations which are part of the State Implementation Plan.

"Net Emissions Increase" shall mean with respect to any regulated NSR pollutant, the amount by which the sum of the following exceeds zero:

(1) Any increase in emissions as calculated pursuant to Paragraphs 3.4.1(e) through (i) of this Part from a particular physical change or change in method of operation at a stationary source; and

(2) Any other increases and decreases in actual emissions at a major stationary source that are contemporaneous with the particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases under this Paragraph shall be determined as provided in the definition of "Baseline Actual Emissions" in this Section except that Subdivisions (1)(iii) and (2)(iv) of that definition shall not apply.

(i) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:

(I) The date up to five (5) years before construction as defined in this Part, on the particular

change commences (see the definition of "Commence" in this Part); and

(II) The date that the increase from the particular change occurs.

(ii) An increase or decrease in actual emissions is creditable only if the Director has not relied on it in issuing a permit for the source under this Part, which is in effect when the increase in actual emissions from the particular change occurs.

(iii) With respect to particulate matter, only PM_{10} and $PM_{2.5}$ emissions can be used to evaluate the net emissions increase for PM_{10}. Only $PM_{2.5}$ emissions can be used to evaluate the net emissions increase for $PM_{2.5}$.

(iv) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.

(v) A decrease in actual emissions is creditable only to the extent that:

(I) The old level of actual emissions or the old level of allowable emissions (as defined in this Part), whichever is lower, exceeds the new level of actual emissions;

(II) It is enforceable (as defined in this Part), at and after the time that actual construction on the particular change begins; and

(III) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.

(IV) The Director has not relied upon the decrease in demonstrating attainment or reasonable further progress.

(vi) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only

after a reasonable shakedown period, not to exceed 180 days.

(3) Fugitive emissions increases and decreases are not creditable for those emissions units located at a facility whose primary activity is not listed in Section 3.4.1(k) and for which the unit, itself, is not part of a listed source category in Section 3.4.1(k).

"Nonattainment Area" shall mean any area designated by EPA as nonattainment for any national ambient air quality standard under Subpart C of 40 CFR Part 81.301.

"Nonattainment Major New Source review (NSR) Program" shall mean the preconstruction permit program in this Part. Any permit issued under this program is a major NSR permit.

"Offset Ratio" shall mean the ratio of total actual emissions reductions to total allowable emissions increases of such pollutant from the new source.

"Pollution Prevention Projects" shall mean any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants (including fugitive emissions) and other pollutants to the environment prior to recycling, treatment, or disposal. It does not mean recycling (other than certain "in-process recycling" practices), energy recovery, treatment, or disposal.

"Potential To Emit" shall mean the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Secondary emissions as defined in this Part do not count in determining the potential to emit of a stationary source.

"Predictive Emissions Monitoring System (PEMS)" shall mean all of the equipment necessary to monitor process

and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O_2 or CO_2 concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

"Prevention of Significant Deterioration (PSD) Program" shall mean the preconstruction permit program in Part 3.5 of this Chapter. Any permit issued under this program is a major NSR permit.

"Project" shall mean a physical change in, or change in the method of operation of, an existing major stationary source.

"Projected Actual Emissions" shall mean:

(1) The maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (consecutive 12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.

(2) In determining the projected actual emission under Subparagraph (1) above (before beginning actual construction), the owner or operator of the major stationary source:

(i) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under these regulations; and

(ii) Shall include fugitive emissions to the extent quantifiable, if appropriate under Paragraph 3.4.1 (k), and emissions associated with startups and shutdowns; and

(iii) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions, as defined in this Part and that are not resulting from the particular project, including any increased utilization due to product demand growth; or

(iv) In lieu of using the method set out in Subdivisions (2)(i) through (iii) above, may elect to use the emissions unit's potential to emit, in tons per year, as defined in this Part.

"Regulated NSR Pollutant", for purposes of this Part, shall mean the following:

(1) Any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the Administrator of EPA (e.g., volatile organic compounds and NOx are precursors for ozone);

(2) $PM_{2.5}$ and PM_{10} emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. Such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for $PM_{2.5}$ and PM_{10}. Applicability determinations made prior to January 1, 2011 without accounting for condensable particulate matter shall not be considered invalid.

"Repowering" shall mean replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the

performance of technology in widespread commercial use as of November 15, 1990.

(1) Repowering shall also include any oil and/ or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

"Secondary Emissions" shall mean emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this Part, secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions include emissions from any off-site support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.

"Significant" shall mean, in reference to an emissions increase or a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant	Emissions Rates (tons per year)
Carbon Monoxide Marginal and Moderate Nonattainment Areas Serious Nonattainment Areas.....	 100 50*
Nitrogen Oxide	40
Sulfur dioxide.....	40
PM_{10}.....	15

$PM_{2.5}$.....	10 (of direct $PM_{2.5}$) 40 (of SO_2 or NOx)
Ozone Marginal and Moderate Nonattainment Areas Serious and Severe Nonattainment Areas... Extreme Nonattainment Area	 40 (of VOC or NOx) 25 (of VOC or NOx) Any (of VOC or NOx)
Lead	0.6

* The significant emission rate of 50 tons for carbon monoxide in serious nonattainment areas shall only apply if the Director has made a determination that stationary sources significantly contribute to the carbon monoxide levels in the area.

"Significant Emissions Increase" shall mean, for a regulated NSR pollutant, an increase in emissions that is significant as defined in this Part, for that pollutant.

"Significant Impact" shall mean the following significant levels would be exceeded in the portion of the designated nonattainment area where the ambient air quality standards are actually violated.

Pollutant	Annual	24-Hour	8-Hour	3-Hour	1-Hour
PM_{10}		5 $\mu g/m^3$			
$PM_{2.5}$	0.3 $\mu g/m^3$	1.2 $\mu g/m^3$			
SO_2	1 $\mu g/m^3$	5 $\mu g/m^3$		25 $\mu g/m^3$	
NO_2	1 $\mu g/m^3$				
CO			0.5 mg/m^3		2 mg/m^3

"Stationary Source" shall mean any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.

"Temporary clean coal technology demonstration project" shall mean a clean coal technology demonstration

project that is operated for a period of 5 years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

3.4.3 Permitting Requirements. No Air Permit shall be issued for the construction of a new major source or the major modification of an existing source that is major for any pollutant or its precursors for which an area is nonattainment if the source or modification would be located in the nonattainment area or would be located outside the nonattainment area but have a significant impact on the nonattainment area unless the following conditions are met, as applicable:

(a) The applicant demonstrates that the new source or the major modification would meet an emission limitation that would represent the lowest achievable emission rate (LAER)for that source or facility;

(b) The applicant certifies that all existing major sources owned or operated by the applicant(or any entity controlling, controlled by, or under common control with that person) within the state of Alabama are in compliance with all applicable air emission limits or are on an acceptable compliance schedule; and

(c) The applicant demonstrates that emission reductions from existing source(s) in the area of the proposed source/ major modification (whether or not under the same ownership) meet the offset requirements of Section 3.4.4 of this Part.

(d) Alternative Sites Analysis. An analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification shall be required.

(e) Requirements for sources located outside of a nonattainment area. Any new major stationary source or major modification undergoing a PSD permitting review near a nonattainment area which has a significant impact,

as defined in this Part, on the nonattainment area shall either:

(1) Obtain offsets from within the nonattainment area in accordance with the requirements in Section 3.4.4 of this Part, or

(2) Obtain emissions reductions in or near the nonattainment area which will, at a minimum, reduce the impact of the project to below the significant impact level. All emissions reductions must be calculated in accordance with the requirements in Section 3.4.4 and be enforceable.

(f) The requirements of this Part shall apply to all pollutants for which a nonattainment area has been designated as nonattainment and all precursors for those pollutants.

(g) Interpollutant trading may be utilized only for the purpose of satisfying offset requirements for $PM_{2.5}$. Emissions reductions may only be utilized once in determining allowable offsets, e.g. the same reductions in SO_2 may not be utilized to offset SO_2 increases and $PM_{2.5}$ increases. Any offsets utilized in interpollutant offset trading must meet the requirements of Section 3.4.4. Interpollutant offsets shall be determined based upon the following ratios:

(1) 200 tons of NO_x to 1 ton of $PM_{2.5}$,

(2) 1 ton of $PM_{2.5}$ to 200 tons of NO_x,

(3) 40 tons of SO_2 to 1 ton $PM_{2.5}$,

(4) 1 ton of $PM_{2.5}$ to 40 tons of SO_2.

(h) Exemptions. Temporary emission sources, such as pilot plants and portable facilities which will be relocated outside of the nonattainment area after a short period of time, are exempt from the requirements of Paragraphs 3.4.3(c) through (e) of this Part.

(i) The total amount of increased emissions resulting from a major modification that must be offset, in tons per year, shall be determined by summing the difference between the allowable emissions (as defined in this Part)

after the modification, and the actual emissions (as defined in this Part), before the modification for each emissions unit.

3.4.4 Offset Standards

(a) Where the emission limit under these regulations allows greater emissions than the potential to emit of the source, emissions offset credit will be allowed only for control below this potential;

(b) For an existing fuel combustion source, credit shall be based on the allowable emissions under these regulations for the type of fuel being burned at the time the application to construct is filed. If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable (or actual) emissions for the fuels involved is not acceptable, unless the permit is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a dirtier fuel at some later date.

(c) Emissions reductions achieved by shutting down an existing emission unit or curtailing production or operating hours may be generally credited for offsets if they meet the following requirements:

(1) Such reductions are surplus, permanent, quantifiable, and enforceable.

(2) The shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this Paragraph, the Director may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. No credit may be given for shutdowns that occurred before August 7, 1977.

(d) Emissions reductions achieved by shutting down an existing emissions unit or curtailing production or operating hours and that do not meet the requirements in Subparagraph (c)(2) above may be generally credited only

if:

(1) The shutdown or curtailment occurred on or after the date the construction permit application is filed; or

(2) The applicant can establish that the proposed new emission unit is a replacement for the shutdown or curtailed emission unit, and the emissions reductions achieved by the shutdown or curtailment are surplus, permanent, quantifiable, and enforceable.

(e) No emissions credit may be allowed for replacing one hydrocarbon compound with another of lesser reactivity, except for those compounds listed in Table 1 of EPA's "Recommended Policy on Control of Volatile Organic Compounds" (42 FR 35314, July 8, 1977; (This document is also available from the Office of Air Quality Planning and Standards, (MD-15) Research Triangle Park, NC 27711.))

(f) All emission reductions claimed as offset credit shall be federally enforceable;

(g) Credit for an emissions reduction can be claimed provided that the Department has not relied on it in issuing any permit under Part 3.4 or 3.5 of this Chapter, or has not relied on it in a demonstration of attainment or reasonable further progress.

(h) If a designated nonattainment area is projected to be an attainment area as part of an approved SIP control strategy by the new source start-up date, offsets would not be required if the new source would not cause a new violation.

(i) Calculation of Emission Offsets.

(1) The following procedure shall be followed to calculate emission offsets;

(i) The source shall calculate average annual actual emissions, in tons per year (tpy), before the emission reduction using data from the 24-month period immediately preceding the reduction in emissions. With the Director's approval, the use of a different time period, not to exceed 10 years immediately preceding the

reduction in emissions, may be allowed if the owner or operator of the source documents that such period is more representative of normal source operation, but not prior to the base year inventory date, which is the last day of the two years preceding the date of nonattainment designation; and

(ii) The emission offsets created shall be calculated by subtracting the allowable emissions following the reduction from the average annual actual emissions prior to the reduction.

(2) For any emissions unit that has been operating for a consecutive period of at least 12 months but less than 24 months on the base year inventory date, based on the unit's potential to emit, emissions shall be calculated equal to the amount needed to complete a 24-month period on the base year inventory date. The baseline for determining credit for emission offsets of any source shall be the allowable emissions of said source or the actual emissions of said source, not including any malfunctions, whichever is less.

(j) Location of offsetting emissions. Emission offsets shall be obtained from sources currently operating within the same designated nonattainment area as the new or modified stationary source. Emission offsets may be obtained from another nonattainment area with the Director's approval only if

(1) The other area has an equal or higher nonattainment classification then the area in which the proposed source is located; and

(2) Emissions from the other area contribute to a violation of the NAAQS in the nonattainment area in which the source is located.

(k) Emission offsetting ratios. Emission offsets shall be required in nonattainment areas in accordance with the following provisions;

(1) Emissions increases in carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter (PM_{10} and $PM_{2.5}$) nonattainment areas shall be offset at a ratio greater than 1 to 1.

(2) Emissions increases in ozone nonattainment areas shall be offset for volatile organic compounds (VOC) and nitrogen oxides (NOx) in accordance with the following;

(i) Marginal 1.1 to 1

(ii) Moderate 1.15 to 1

(iii) Serious 1.2 to 1

(iv) Severe 1.3 to 1

(v) Extreme 1.5 to 1

3.4.5 Banking of Emissions Offsets. Offsets approved after January 16, 1979, which exceed the requirement of reasonable further progress may be "banked" for future use; likewise, reductions in emission from existing sources which exceed the requirement of reasonable further progress may be "banked" for future use. The banking is subject to the following requirements:

(a) Application shall be made in writing to the Director, describing the emission offsets to be banked, such description to include location, source, and type of emissions.

(b) Emission offsets cannot be banked beyond the allowable emission of said source or the existing emissions of said source, not including any malfunctions, whichever is less.

(c) Upon approval by the Director of said application, the banked emissions shall be credited to the facility submitting such application.

(d) No emission offsets banked in accordance with the provisions of this Section shall be used unless written notice is provided to the Director thirty (30) days prior to submission of the necessary permit applications, to provide opportunity for review of the proposed use of the banked emission offsets.

(e) In the event that a determination is made that

the banked emission offsets may not be used for the proposed construction, written notice shall be afforded the applicant, as provided in Section 3.2.4 of this Chapter.

(f) In the event that a determination under Paragraph (e) of this Section is made by the Director, construction may proceed if, and only if emission offsets are obtained sufficient to satisfy the requirements of Section 3.4.4 of this Part.

(g) Nothing contained in this Section shall prohibit the transfer, assignment, sale, or otherwise complete disposition of said banked emission offsets, provided that written notice is provided to the Director, thirty (30) days prior to such disposition, describing in detail the recipient of the banked emissions.

3.4.6 Area Classifications.

(a) The following area, which was in existence on August 7, 1977, shall be a Class I area and may not be redesignated:

(1) The Sipsey Wilderness Area, located in Franklin, Winston, and Lawrence counties, Alabama.

(b) Any other area is initially designated Class II:

3.4.7 Air Quality Models.

(a) All estimates of ambient concentrations required under this Part shall be based on the applicable air quality models, data bases and other requirements specified in the "Guideline on Air Quality Models", (U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711).

3.4.8 Control Technology Review.

(a) A major stationary source or major modification shall meet each applicable emissions limitation under the State Implementation Plan and each applicable limitation standard and standard of performance under 40 CFR Parts 60, 61, and 63.

(b) A new major stationary source shall apply LAER for each regulated NSR pollutant and precursors that it would have the potential to emit in significant amounts for which the area is designated as nonattainment.

(c) A major modification shall apply LAER for each regulated NSR pollutant and precursors for which it would result in a significant net emissions increase for which the area is designated as nonattainment. This requirement applies to each emissions unit at which a net emissions increase in the pollutant or precursors would occur as a result of a physical change or change in the method of operation in the unit.

(d) For phased construction projects, the determination of LAER shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than eighteen (18) months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of LAER for the source.

3.4.9 Air Quality Monitoring.

(a) Post-construction Monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the Director determines is necessary to determine the impact said source or modification may have, or is having, on air quality in any area.

(b) Operations of Monitoring Stations. The owner or operator of a major stationary source or major modification shall meet Federal monitoring quality assurance requirements during the operation of monitoring stations for purposes of satisfying this Section.

(c) Visibility Monitoring. The Director may require monitoring of visibility in any Federal Class I area near the proposed new stationary source or major modification for such purposes and by such means as the Director deems necessary and appropriate.

3.4.10 Source Information. The owner or operator of

a proposed source or modification shall submit all information necessary to perform any analysis or to make any determination required under this Part.

(a) Such information shall include:

(1) a description of the nature, location, design, capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout;

(2) A detailed schedule for construction of the source or modification;

(3) A detailed description as to what system of continuous emission reduction is planned for the source or modification, emission estimates, and any other information necessary to determine that LAER would be applied.

(b) Upon request of the Director, the owner or operator shall also provide information on:

(1) The air quality impact of the source or modification, including meteorological and topographical data necessary to estimate such impact; and

(2) The air quality impacts and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.

3.4.11 Public Participation.

(a) After receipt of an application for an Air Permit or any addition to such application, the Director shall advise the applicant of any deficiency in the application or in the information submitted. In the event of such a deficiency, the date of receipt of the application shall be, for the purpose of this Part, the date on which the Director received all required information.

(b) Within one (1) year after receipt of a complete application, the Director shall make a final determination of the application. This involves performing the following actions in a timely manner:

(1) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

(2) Make available in at least one location in each region in which the proposed source or modification would be constructed a copy of all materials the applicant submitted, a copy of the preliminary determination and a copy or summary of other materials, if any, considered in making the preliminary determination.

(3) Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source or modification would be constructed, of the application, the preliminary determination, and the opportunity for written public comment, as well as comment at a public hearing. Public comments will be accepted for at least 30 days from the date of initial publication.

(4) Send a copy of the notice of public comment to the applicant, to EPA, and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: any other State or local air pollution control agencies, the chief executives of the city and county where the source or modification would be located, any comprehensive regional land use planning agency, and any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the source or modification.

(5) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source or modification, alternatives to the source or modification, the control technology required, and other appropriate considerations.

(6) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. No later than ten (10) days after the close of the public comment period, the applicant may, as part of the public record, submit a written response to any

comments submitted by the public. The Director shall consider the applicant's response in making a final decision. The Director shall make all comments available for public inspection in the same locations where the Director made available preconstruction information relating to the proposed source or modification.

(7) Make a final determination whether construction should be approved, approved with conditions, or disapproved pursuant to this Part.

(8) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the Director made available preconstruction information and public comments relating to the source or modification.

3.4.12 Source Obligation.

(a) An Air Permit authorizing construction shall become invalid if construction is not commenced within twenty-four (24) months after receipt of such approval, if construction is discontinued for a period of twenty-four (24) months or more, or if construction is not completed within a reasonable time. The Director may extend the twenty-four (24) month period upon satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within twenty-four (24) months of the projected and approved commencement date.

(b) An Air Permit authorizing construction shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan and any other requirements under local, State or Federal law.

(c) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as restriction on hours of operation, then the requirements of Sections 3.4.8 through 3.4.12 of this Part shall apply to the

source or modification as though construction had not yet commenced on the source or modification.

(d) The provisions of this Paragraph apply to projects at an existing emissions unit at a major stationary source (other than projects at a source with a PAL), that are not excluded from the definition of physical change or change in the method of operation, where there is not a reasonable possibility that the project is a part of a major modification and may result in a significant emissions increase and the owner or operator elects to use the method specified in Subdivisions (2)(i) through (iii) of the definition of "projected actual emissions" in this Part for calculating projected actual emissions.

(1) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

(i) A description of the project;

(ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and

(iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under Subdivision (2)(iii) of the definition of "projected actual emissions" in this Part and an explanation for why such amount was excluded, and any netting calculations, if applicable.

(2) The owner or operator of the source shall make the information required to be documented and maintained pursuant to this Paragraph available for review upon a request for inspection by the Department or the general public.

(3) Nothing in this Subparagraph shall be construed to exempt the owner or operator of such a unit from obtaining any minor source Air Permit in accordance with the requirements of this Chapter.

(e) The provisions of this Paragraph apply to projects at an existing emissions unit at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility that a project that is not a part of a major modification, and that is not excluded from the definition of physical change or change in the method of operation, may result in a significant emissions increase and the owner or operator elects to use the method specified in Subdivisions (2)(i) through (iii) of the definition of "projected actual emissions" in this Part for calculating projected actual emissions.

(1) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

(i) A description of the project;

(ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and

(iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under Subdivision (2)(iii) of the definition of "projected actual emissions" in this Part and an explanation for why such amount was excluded, and any netting calculations, if applicable.

(2) Before beginning actual construction, the owner or operator shall provide a copy of the information set out in Subparagraph (e)(1) above to the Director. Nothing in this Subparagraph shall be construed to require the owner or operator of such a unit to obtain any determination from the Director before beginning actual construction; however, nothing in this Subparagraph shall be construed to exempt the owner or operator of such a unit from obtaining any minor source Air Permit in accordance with the requirements of this Chapter.

(3) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could

increase as a result of the project and that is emitted by any emission unit identified in Subdivision (e)(1)(ii) above; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

(4) The owner or operator shall submit a report to the Director within 60 days after the end of each year during which records must be generated under Subparagraph (e)(3) above. The report shall contain the following:

(i) All information required by Subparagraph (e)(1) of this Paragraph.

(ii) The name, address and telephone number of the major stationary source;

(iii) The annual emissions as calculated pursuant to Subparagraph (e)(3) of this Paragraph; and

(iv) Any other information that the owner or operator wishes to include in the report.

(5) The owner or operator of the source shall make the information required to be documented and maintained pursuant to this Paragraph available for review upon a request for inspection by the Department.

(6) All information submitted to the Department pursuant to the requirements of this Paragraph shall be available for review at the request of any member of the public in accordance with the Department's public records review procedures found in Part 1.6 of these Regulations.

3.4.13 Innovative Control Technology.

(a) An owner or operator of a proposed major stationary source or major modification may request in writing no later than the close of the comment period under Section 3.4.11 that the Director approve a system of innovative control technology.

(b) The Director shall determine that the source or modification may employ a system of innovative control technology, if:

(1) The proposed control system would not cause or contribute to an unreasonable risk to public health, welfare or safety in its operation or function;

(2) The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required under Paragraph 3.4.8(b) by a date specified by the Director. Such date shall not be later than four (4) years from the time of startup or seven (7) years from permit issuance.

(3) The source or modification would meet the requirements of Section 3.4.8 based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified by the Director.

(4) The source or modification has obtained all emission reductions as required in Section 3.4.4 prior to initial startup of the source or modification.

(5) The consent of the Governor of any other affected state is secured;

(6) All other applicable requirements including those for public participation have been met.

(c) The Director shall withdraw any approval to employ a system of innovative control technology made under this Part, if;

(1) The proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or

(2) The proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare or safety; or

(3) The Director decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare or safety.

(d) If a source or modification fails to meet the required level of continuous emission reduction within the specified time period or the approval is withdrawn in accordance with Paragraph (c) of this Section, the Director may allow the source or modification up to an additional three (3) years to meet the requirement for the application of LAER through use of a demonstrated system of control.

3.4.14 Actuals PALs. The provisions in this Section govern actual PALs.

(a) Applicability.

(1) The Director may approve the use of an actuals PAL for any existing major stationary source if the PAL meets the requirements in Paragraphs 3.4.14(a) through (o) of this Part. The term "PAL" shall mean "actuals PAL" throughout this Section.

(2) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in this Section, and complies with the PAL permit:

(i) Is not a major modification for the PAL pollutant;

(ii) Does not have to be approved through the nonattainment major NSR program;

(3) A major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.

(b) Definitions. For the purposes of this Section, the definitions in this Paragraph apply. When a term is not defined in this Paragraph, it shall have the meaning given in Section 3.4.2 of this Part or in the Clean Air Act.

"Actuals PAL" for a major stationary source means a PAL based on the baseline actual emissions (as defined in this Part) of all emissions units (as defined in this

Part) at the source, that emit or have the potential to emit the PAL pollutant.

"Allowable emissions" means "allowable emissions" as defined in this Part, except as this definition is modified according to Subdivisions (i) and (ii) below.

(i) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.

(ii) An emissions unit's potential to emit shall be determined using the definition in this Part, except that the words "or enforceable as a practical matter" should be added after "enforceable."

"Small emissions unit" means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in this Part or in the Clean Air Act, whichever is lower.

"Major emissions unit" means:

(i) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area; or

(ii) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the threshold for the PAL pollutant included in the definition of "Major stationary source" in this part.

"Plantwide applicability limitation (PAL)" means an emission limitation expressed in tons per year, for a pollutant at a major stationary source that is enforceable as a practical matter and established source-wide in accordance with this Section.

"PAL effective date" generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

"PAL effective period" means the period beginning with the PAL effective date and ending 10 years later.

"PAL major modification" means, notwithstanding the definitions for "major modification" and "net emissions increase" in this Part, any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.

"PAL permit" means the major NSR permit, the minor NSR permit, or the title V permit issued by the Director that establishes a PAL for a major stationary source.

"PAL pollutant" means the pollutant for which a PAL is established at a major stationary source.

"Significant emissions unit" means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in this Part or in the Clean Air Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in this Paragraph.

(c) Permit application requirements. As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information to the Director for approval:

(1) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations, or work practices apply to each unit.

(2) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup and shutdown.

(3) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions

and annual emissions based on a 12-month rolling total for each month as required by Subparagraph 3.4.14(m)(1) of this Section.

(d) General requirements for establishing PALs.

(1) The Director is allowed to establish a PAL at a major stationary source, provided that at a minimum, the requirements in Subdivisions (1)(i) through (vii) below are met.

(i) The PAL shall impose an annual emission limitation in tons per year, that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month total, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

(ii) The PAL shall be established in a PAL permit that meets the public participation requirements in Paragraph 3.4.14(e) of this Section.

(iii) The PAL permit shall contain all the requirements of Paragraph 3.4.14(g) of this Section.

(iv) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.

(v) Each PAL shall regulate emissions of only one pollutant.

(vi) Each PAL shall have a PAL effective period of 10 years.

(vii) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements

provided in Paragraphs 3.4.14(l) through (n) of this Section for each emissions unit under the PAL through the PAL effective period.

(2) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under this Part unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

(e) Public participation requirements for PALs. PALs for existing major stationary sources shall be established, renewed, or increased through a procedure that is consistent with those of this Part and 40 CFR Sections 51.160 and 51.161. This includes the requirement that the Director provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The Director must address all material comments before taking final action on the permit.

(f) Setting the 10-year actuals PAL level. The actuals PAL level for a major stationary source shall be established as the sum of the baseline actual emissions (as defined in this Part) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under the definition of "significant" in this Part or under the Clean Air Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shutdown after this 24-month period must be subtracted from the PAL level. Emissions from units on which actual construction began after the beginning of the 24-month period must be added to the PAL level in an amount equal to the potential to emit of the unit if the unit began operation less than 24 months prior to the submittal of the PAL application. Baseline actual emissions from units on which actual construction began after the beginning of the 24-month period and commenced operation 24 months or more prior to the submittal of the PAL

application must be added to the PAL based upon any 24 month period since the unit commenced operation. The Director shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Director is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO_X to a new Rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).

(g) Contents of the PAL permit. The PAL permit must contain, at a minimum, the information in Subparagraphs (g)(1) through (10) below.

(1) The PAL pollutant and the applicable source-wide emission limitation in tons per year.

(2) The PAL permit effective date and the expiration date of the PAL (PAL effective period).

(3) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL in accordance with Paragraph 3.4.14(j) of this Section before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the Director.

(4) A requirement that emission calculations for compliance purposes must include emissions from startups and shutdowns.

(5) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of Paragraph 3.4.14(i) of this Section.

(6) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total as required by Subparagraph 3.4.14(m)(1) of this Section.

(7) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under Paragraph 3.4.14(l) of this Section.

(8) A requirement to retain the records required under Paragraph 3.4.14(m) of this Section on site. Such records may be retained in an electronic format.

(9) A requirement to submit the reports required under Paragraph 3.4.14(n) of this Section by the required deadlines.

(10) Any other requirements that the Director deems necessary to implement and enforce the PAL.

(h) PAL effective period and reopening of the PAL permit. The requirements in Subparagraphs (h)(1) and (2) below apply to actuals PALs.

(1) PAL effective period. The Director shall specify a PAL effective period of 10 years.

(2) Reopening of the PAL permit.

(i) During the PAL effective period, the Director must reopen the PAL permit to:

A. Correct Typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL;

B. Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under this Part; and

C. Revise the PAL to reflect an increase in the PAL as provided under Paragraph 3.4.14(k) of this Section.

(ii) The Director shall have discretion to reopen the PAL permit for the following:

A. Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) with compliance dates after the PAL effective date;

B. Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and is required by these regulations; and

C. Reduce the PAL if the Director determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on a published air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.

(iii) Except for the permit reopening in Subdivision (2)(i)(A) of this Paragraph for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of Paragraph 3.4.14(e) of this Section.

(i) Expiration of a PAL. Any PAL that is not renewed in accordance with the procedures in Paragraph 3.4.14(j) of this Part shall expire at the end of the PAL effective period, and the requirements in Subparagraphs (i)(1) through (5) below shall apply.

(1) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in Subdivisions (1)(i) and (ii) below.

(i) Within the time frame specified for PAL renewals in Subparagraph 3.4.14(j)(2) of this Section, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Director) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under Subparagraph 3.4.14(j)(5) of this Section, such

distribution shall be made as if the PAL had been adjusted.

(ii) The Direct or shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Director determines is appropriate.

(2) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Director may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS, or CPMS to demonstrate compliance with the allowable emission limitation.

(3) Until the Director issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under Subdivision (1)(ii) of this Paragraph, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.

(4) Any physical change or change in the method of operation at the major stationary source will be subject to major NSR requirements if such change meets the definition of "major modification" in this Part.

(5) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, synthetic minor limit, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period.

(j) Renewal of a PAL.

(1) The Director shall follow the procedures specified in Paragraph 3.4.14(e) of this Section in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Director.

(2) Application deadline. A major stationary source owner or operator shall submit a timely application to the Director to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

(3) Application requirements. The application to renew a PAL permit shall contain the information required in Subdivisions (3)(i) through (iv) below.

(i) The information required in Subparagraphs 3.4.14(c)(1) through (3) of this Section.

(ii) A proposed PAL level.

(iii) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).

(iv) Any other information the owner or operator wishes the Director to consider in determining the appropriate level for renewing the PAL.

(4) PAL adjustment. In determining whether and how to adjust the PAL, the Director shall consider the options outlined in Subdivisions (4)(i) and (ii) below. However, in no case may any such adjustment fail to comply with Subdivision (4)(iii) below.

(i) If the emissions level calculated in accordance with Paragraph 3.4.14(f) of this Section is equal to or greater than 80 percent of the PAL level, the Director may renew the PAL at the same level without considering the factors set forth in Subdivision (4)(ii) below; or

(ii) The Director may set the PAL at a level that he or she determines to be more representative of the source's baseline actual emissions, or that he or she determines to be more appropriate considering air

quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Director in his or her written rationale.

(iii) Notwithstanding Subdivisions (4)(i) and (ii) above:

(A) If the potential to emit of the major stationary source is less than the PAL, the Director shall adjust the PAL to a level no greater than the potential to emit of the source; and

(B) The Director shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of Paragraph 3.4.14(k) of this Section (increasing a PAL).

(5) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the Director has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.

(k) Increasing a PAL during the PAL effective period.

(1) The Director may increase a PAL emission limitation only if the major stationary source complies with the provisions in Subdivisions (k)(1)(i) through (iv) below.

(i) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.

(ii) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline

actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

(iii) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in Subdivision (1)(i) above, regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the nonattainment major NSR process (for example, LAER), even though they have also become subject to the PAL or continue to be subject to the PAL.

(iv) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(2) The Director shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with Subdivision (k)(1) (ii)) above, plus the sum of the baseline actual emissions of the small emissions units.

(3) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of Paragraph 3.4.14(e) of this Section.

(l) Monitoring requirements for PALs.

(1) General requirements.

(i) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.

(ii) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in Subdivisions (2)(i) through (iv) of this Paragraph and must be approved by the Director.

(iii) Notwithstanding Subdivision (1)(ii) above, an alternative monitoring approach that meets Subdivision (1)(i) above may be employed if approved by the Director.

(iv) Failure to use a monitoring system that meets the requirements of this Paragraph renders the PAL invalid.

(2) Minimum performance requirements for approved monitoring approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in Subparagraphs (3) through (9) of this Paragraph:

(i) Mass balance calculations for activities using coatings or solvents;

(ii) CEMS;

(iii) CPMS or PEMS; and

(iv) Emission factors.

(3) Mass balance calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:

(i) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;

(ii) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and

(iii) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Director determines there is site-specific data or a site-specific monitoring program to support another content within the range.

(4) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:

(i) CEMS must comply with applicable Performance Specifications found in 40 CFR Part 60, appendix B; and

(ii) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.

(5) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:

(i) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and

(ii) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Director, while the emissions unit is operating.

(6) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:

(i) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

(ii) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and

(iii) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the Director determines that testing is not required.

(7) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.

(8) Notwithstanding the requirements in Subparagraphs (l)(3) through (7) above, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Director shall, at the time of permit issuance:

(i) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or

(ii) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.

(9) Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Director. Such testing must occur at least once every 5 years after issuance of the PAL.

(m) Recordkeeping requirements.

(1) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of this Section of this Part and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.

(2) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:

(i) A copy of the PAL permit application and any applications for revisions to the PAL; and

(ii) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.

(n) Reporting and notification requirements. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Director in accordance with the applicable title V operating permit. The reports shall meet the requirements in Subparagraphs (n) (1) through (3) below.

(1) Semi-annual report. This report shall contain the information required in Subdivisions (n)(1)(i) through (vii) below.

(i) The identification of owner and operator and the permit number.

(ii) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to Subparagraph 3.4.14(m)(1) of this Section.

(iii) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control

data, in calculating the monthly and annual PAL pollutant emissions.

(iv) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.

(v) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.

(vi) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by Subparagraph 3.4.14(l)(7) of this Section.

(vii) A signed statement by a responsible official (as defined in this Chapter) certifying the truth, accuracy, and completeness of the information provided in the report.

(2) Deviation report. The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to Subparagraph 3.9.5(e)(2) of this Chapter shall satisfy this reporting requirement. The reports shall contain the following information:

(i) The identification of owner and operator and the permit number;

(ii) The PAL requirement that experienced the deviation or that was exceeded;

(iii) Emissions resulting from the deviation or the exceedance; and

(iv) A signed statement by a responsible official (as defined in this Chapter) certifying the

truth, accuracy, and completeness of the information provided in the report.

(3) Re-validation results. The owner or operator shall submit to the Director the results of any re-validation test or method within 3 months after completion of such test or method.

(o) Transition requirements.

(1) The Director may not issue a PAL that does not comply with the requirements in this Section after the effective date of this Section.

(2) The Director may supersede any PAL that was established prior to the effective date of this Section with a PAL that complies with the requirements of this Section.

3.4.15 If any provision of this Part, or the application of such provision to any person or circumstance, is held invalid, the remainder of this Part, or the application of such provision to persons or circumstance other than those as to which it is held invalid, shall not be affected thereby.

3.5 Air Permits Authorizing Construction in Clean Air Areas. (Prevention of Significant Deterioration Permitting (PSD)) (amended September 8, 2011)

3.5.1 Applicability. (Amended March 10, 2016)

(a) The requirements of this Part apply to the construction of any new major stationary source (as defined in this Part) or any project at an existing major stationary source in an area designated as attainment or unclassifiable under sections 107(d)(1)(A)(ii) or (iii) of the Clean Air Act.

(b) The requirements of Sections 3.5.4 through 3.5.12 of this Part apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as this Part otherwise provides.

(c) No new major stationary source or major

modification to which the requirements of Sections 3.5.4 through 3.5.12(c) of this Part apply shall begin construction without a permit that states that the major stationary source or major modification will meet those requirements.

(d) Except as otherwise provided in Paragraph 3.5.1(j) of this Part, and consistent with the definition of major modification contained in this Part, a project is a major modification for a regulated NSR pollutant only if it causes two types of emissions increases – a significant emissions increase [as defined in this Part], and a significant net emissions increase [see the definitions of "significant", and "net emissions increase" in this Part].

(e) Before beginning actual construction, the procedure for calculating whether a significant emissions increase will occur depends upon the type of emissions units being modified, according to Paragraphs 3.5.1(f) through (i) of this Part. The procedure for calculating whether a significant net emissions increase will occur at the major stationary source is contained in the definition of "net emissions increase" in this Part. Regardless of any such preconstruction projections, a major modification can result only if the project causes a significant emissions increase and a significant net emissions increase.

(f) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference(s) between the projected actual emissions [as defined in this Part] and the baseline actual emissions [as defined in Subparagraphs (1) and (2) of the definition of "baseline actual emissions" in this Part], for each existing emissions unit, equals or exceeds the significant rate for that pollutant [see the definition of "significant" in this Part].

(g) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit [as defined in this Part] from each new emissions unit following

completion of the project and the baseline actual emissions [as defined in Subparagraph (3) of the definition of "baseline actual emissions" in this Part] of these units before the project equals or exceeds the significant rate for that pollutant [see the definition of "significant" in this Part].

(h) Actual-to-potential test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference(s) between the potential to emit [as defined in this Part] and the actual emissions [as defined in this Part], for each existing emissions unit, equals or exceeds the significant rate for that pollutant [see the definition of "significant" in this Part].

(i) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in Paragraphs 3.5.1 (f) through (h) of this Section as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant rate for that pollutant [see the definition of "significant" in this Part].

(j) Any major stationary source subject to a plantwide applicability limit (PAL), as defined in Section 3.5.20 of this Part, for a regulated NSR pollutant shall comply with the requirements under Section 3.5.20 of this Part.

(k) Greenhouse gases (GHGs)

(1) GHGs, as defined in Section 3.5.2 of this Part, shall not be utilized in determining if a source is a major stationary source, as defined in Section 3.5.2 of this Part, or in determining if a modification is a major modification, as defined in Section 3.5.2 of this Part.

(2) GHGs shall only be subject to the requirements of this Part if:

(i) A new major stationary source or major

modification causes a significant emissions increase of GHGs, as defined in Section 3.5.2 of this Part, and a significant net emissions increase of GHGs, as defined in Section 3.5.2 of this Part.

(ii) The new major stationary source or major modification is required to obtain a permit subject to the requirements of this Part as a result of emissions of regulated NSR pollutants other than GHGs.

3.5.2 Definitions. For the purposes of this Part only, the following terms will have meanings ascribed in this Section. (amended September 8, 2011)

"Actual Emissions" shall mean:

(1) the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with Subparagraphs (2) through (4) below, except that this definition shall not apply for establishing a PAL under Section 3.5.20 of this Part. Instead, the definitions of "baseline actual emissions" and "projected actual emissions" in this Part shall apply for this purpose.

(2) in general, actual emissions as of any given date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the given date and which is representative of normal source operation. The Director shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the units actual operating hours, production rates, and type of materials processed, stored, or combusted during the selected time period.

(3) the Director may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.

(4) for any emissions unit which has not begun normal operations on the given date as determined in Subparagraph (2) above, actual emissions shall equal the

potential to emit of the unit on that date.

"Adverse Impact on Visibility" means visibility impairment which interferes with the management, protection, preservation or enjoyment of the visitors visual experience of the Federal Class I area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of visibility impairments, and how these factors correlate with

(1) times of visitor use of the Federal Class I area, and

(2) the frequency and timing of natural conditions that reduce visibility.

"Allowable Emissions" shall mean the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:

(1) the applicable standards as set forth in 40 CFR 60, 61, and 63;

(2) the applicable State Implementation Plan emissions limitation, including those with a future compliance date; or

(3) the emissions rate specified as an enforceable permit condition, including those with a future compliance date.

"Baseline actual emissions" means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with Subparagraphs (1) through (4) below.

(1) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The

Director may allow the use of a different time period upon a determination that it is more representative of normal source operation.

(i) The average rate shall include fugitive emissions to the extent quantifiable and emissions associated with startups and shutdowns.

(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.

(iii) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(iv) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by Subdivision (1)(ii) of this definition.

(2) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Department for a permit required under this Part, whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990.

(i) The average rate shall include fugitive emissions to the extent quantifiable and emissions associated with startups and shutdowns.

(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission

limitation that was legally enforceable during the consecutive 24-month period.

(iii) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under 40 CFR Part 63, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of 40 CFR §51.165(a)(3)(ii)(G).

(iv) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for all the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(v) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by Subdivisions (2)(ii) and (iii) of this Paragraph.

(3) For a new emissions unit, as defined in this Part, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero. During the first two years from the date which the emissions unit commenced operation, the baseline actual emissions shall equal the potential to emit for the unit. Thereafter, the unit will be considered an existing emissions unit and the baseline actual emissions will be determined in accordance with Subparagraph (1) of this Paragraph for an electric steam generating unit or Subparagraph (2) of this Paragraph for other emissions units.

(4) For a PAL for a stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in Subparagraph (1) of this Paragraph, for other existing emissions units in accordance with the procedures contained in Subparagraph (2) of this Paragraph, and for a new emissions unit in accordance with the procedures contained in Subparagraph (3) of this Paragraph.

"Baseline Area" shall mean

(1) any intrastate area (and every part thereof) designated as attainment or unclassifiable under Section 107(d)(1) (A)(ii) or (iii) of the CAA in which the major source or major modification establishing the minor source baseline date would construct or would have an air quality impact equal to or greater than one (1) microgram per cubic meter (annual average) of the pollutant for which the minor source baseline date is established.

(2) Any baseline area established originally for TSP increments shall remain in effect and shall apply for purposes of determining the amount of available PM_{10} increments.

"Baseline Concentration" shall mean: (Amended April 23, 1992)

(1) that ambient concentration level which exists in the baseline area (as defined in this Part) at the time of the applicable minor source baseline date. A baseline concentration is determined for each pollutant for which a minor source baseline date is established and shall include:

(i) the actual emissions, as defined in this Part, representative of sources in existence on the applicable minor source baseline date, except as provided in Subparagraph (2) of this Paragraph;

(ii) the allowable emissions of major stationary sources which commenced construction before the major source baseline date, but were not in operation by the applicable minor source baseline date.

(2) the following will not be included in the baseline concentration and will affect the applicable maximum allowable increases(s):

(i) actual emissions, as defined in this Part, from any major stationary source on which construction commenced after the major source baseline date; and

(ii) actual emissions increases and decreases, (see the definition of "actual emissions" in this Part) at any stationary source occurring after the minor source baseline date.

"Baseline Dates" are defined as follows in Subparagraphs (1) through (4) below: (amended January 25, 1996)

(1) "Major Source Baseline Date" means:

(i) in the case of particulate matter less than 10 microns in diameter and sulfur dioxide, January 6, 1975;

(ii) in the case of nitrogen dioxide, the major source baseline date is February 8, 1988, and

(iii) in the case of particulate matter less than 2.5 microns in diameter, the major source baseline date is October 20, 2010.

(2) "Minor Source Baseline Date" means the earliest date after the trigger date on which the first complete (as defined in this Part) application is submitted by a major stationary source or major modification subject to the requirements of Federal PSD regulations or this Part. The trigger date is:

(i) in the case of particulate matter less than 10 microns in diameter and sulfur oxides, August 7, 1977, and

(ii) in the case of nitrogen dioxide, February 8, 1988.

(iii) in the case of particulate matter less than 2.5 microns in diameter, October 20, 2011.

(3) the baseline date is established for each pollutant for which increments or other equivalent measures have been established if:

(i) the area in which the proposed source or modification would construct is designated as attainment or unclassifiable under Section 107(d)(1) (A)(ii) or (iii) of the CAA for the pollutant on the date of its complete application under Federal PSD regulations or this Part:

(ii) in the case of a major stationary source, the pollutant would be emitted in significant amounts or, in the case of a major modification, there would be a significant net emissions increase of the pollutant.

(4) any minor source baseline date established originally for the TSP increments shall remain in effect and shall apply for purposes of determining the amount of available PM_{10} increments.

"Begin Actual Construction" shall mean, in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying under-ground pipework, and construction of permanent storage structures. With respect to a change in method of operations, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

"Best Available Control Technology (BACT)" shall mean an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the Director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of BACT result

in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR 60 and 61. If the Director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.

"Building, Structure, Facility, or Installation" shall mean all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., which have the same first two digit code) as described in the Standard Industrial Classification Manual.

"Clean coal technology" means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

"Clean coal technology demonstration project" means a project using funds appropriated under the heading "Department of Energy-Clean Coal Technology", up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

"CO_2e equivalent emissions (CO_2e)" shall mean the amount of GHGs emitted as computed in Subparagraphs (1)

and (2) below:

(1) Multiplying the mass amount of emissions (TPY) for each of the six greenhouse gases in the pollutant GHGs by the gas's associated global warming potential as listed in Appendix B.

(2) Sum the resultant value determined in Subparagraph (1) above for each gas to calculate the TPY of CO_2e.

"Commence" as applied to construction of a major stationary source or major modification shall mean that the owner or operator has all necessary preconstruction approvals or permits (as defined in this Part) and either has:

(1) begun, or caused to begin, a continuous program of actual on-site construction (see the definition of "begin actual construction" in this Part) of the source, to be completed within a reasonable time; or

(2) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

"Complete" shall mean, in reference to an application for a permit, that the application contains all of the information necessary for processing the application.

"Construction" shall mean any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in emissions.

"Continuous emissions monitoring system (CEMS)" means all of the equipment that may be required to meet the data acquisition and availability requirements of this Part, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.

"Continuous emissions rate monitoring system (CERMS)" means the total equipment required for the determination

and recording of the pollutant mass emissions rate (in terms of mass per unit of time).

"Continuous parameter monitoring system (CPMS)" means all of the equipment necessary to meet the data acquisition and availability requirements of this Part, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O2 or CO2 concentrations), and to record average operational parameter value(s) on a continuous basis.

"Electric utility steam generating unit" means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

"Emission Unit" shall mean any part of a stationary source which emits or would have the potential to emit any regulated NSR pollutant including an electric utility steam generating unit as defined in this Part. For purposes of this Part, there are two types of emissions units as described in Subparagraphs (1) and (2) below.

(1) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.

(2) An existing emissions unit is any emissions unit that does not meet the requirements in Subparagraph (1) above. A replacement unit, as defined in this Section, is an existing emissions unit. (Amended March 10, 2016).

"Enforceable" shall mean all limitations and conditions which are enforceable, including those requirements developed pursuant to 40 CFR 60, 61, and 63, requirements within the State Implementation Plan, and

any permit requirements established pursuant to this Chapter.

"Environmentally beneficial activity" shall mean:

(1) any activity or project undertaken at an existing emissions unit which, as its primary purpose, reduces emissions of air pollutants from such unit, and is limited to the installation or modification of any of the following:

(i) conventional or advanced flue gas desulfurization, or sorbent injection for SO_2;

(ii) electrostatic precipitators, baghouses, high efficiency multiclones, or scrubbers for particulate matter or other pollutants;

(iii) flue gas recirculation, low-NO_x burners, selective non-catalytic reduction or selective catalytic reduction for NO_x;

(iv) regenerative thermal oxidizers, catalytic oxidizers, condensers, thermal incinerators, flares, carbon adsorbers, or combustion devices installed or modified to comply with hazardous emission standards for volatile organic compounds or hazardous air pollutants;

(v) activities or projects undertaken to accommodate switching to an inherently less polluting fuel, including but not limited to natural gas or coal reburning, or the cofiring of natural gas and other inherently less polluting fuels, for the purpose of controlling emissions, and including any activity that is necessary to accommodate switching to an inherently less polluting fuel;

(vi) pollution prevention projects which the Director determines to be environmentally beneficial;

(vii) installation or modification of a technology other than those listed in Subdivisions (1) (i) through (v) above, for the purposes set forth in this Subparagraph, which has demonstrated an effectiveness at reducing emissions and is determined by the Director to be environmentally beneficial;

(2) Environmentally beneficial projects do not include:

(i) the replacement of an existing emission unit with a newer or different unit;

(ii) reconstruction of an existing emissions unit;

(iii) pollution prevention projects which result in an increased risk from the release of hazardous air pollutants;

(iv) any project which would result in the increased production of an existing emissions unit;

(v) any project which reduces emissions solely by transferring them to or from another media;

(vi) any project which would cause an exceedance of an existing enforceable emissions limitation which was established to avoid applicability of the requirements of this Part.

"Federal Land Manager" shall mean, with respect to any lands in the United States, the Secretary of the Department with authority over such lands.

"Fugitive Emissions" shall mean those emissions which could not reasonably pass through a stack, chimney, vent, roof monitor, or other functionally equivalent opening.

"Greenhouse Gases (GHGs)" means the aggregate of: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

"High Terrain" shall mean any area having an elevation 900 feet or more above the base of the stack of a source.

"Indian Governing Body" shall mean the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.

"Indian Reservation" shall mean any Federally

recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.

"Innovative Control Technology" shall mean any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or non-air quality environmental impacts.

"Low Terrain" shall mean any area other than high terrain.

"Major Modification" shall mean:

(1) any physical change in or change in the method of operation of a major stationary source that would result in a significant (as defined in this Part) net emissions increase (as defined in this Part) of any regulated NSR pollutant;

(2) any net emissions increase that is significant for VOC or NOx shall be considered significant for ozone.

(3) any net emissions increase that is significant for SO_2 or NO_x shall be considered significant for $PM_{2.5}$.

(4) A physical change or change in the method of operation shall not include:

(i) routine maintenance, repair and replacement;

(ii) use of an alternative fuel or raw material by reason of an order under Section 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (P.L. 93-319, 15 U.S.C. 791 note) or any superseding legislation, or by reason of a natural gas curtailment plan pursuant to the Federal Power Act (June 10, 1920, P. L. 280, 16 U.S.C. 791a);

(iii) use of an alternative fuel by reason of an order or rule under Section 125 of the CAA;

(iv) use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(v) use of an alternative fuel or raw material by a stationary source which:

(A) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any enforceable permit condition which was established after January 6, 1975;

(B) the source is approved to use under any permit issued under the Federal Prevention of Significant Deterioration (PSD) regulations (40 CFR 52.21) or under regulations of this Part;

(vi) an increase in the hours of operation or in the production rate, unless such change would be prohibited under any enforceable permit condition which was established after January 6, 1975.

(vii) any change in ownership at a stationary source.

(viii) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(ix) The installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, provided that the project does not result in an increase in the potential to emit of any regulated NSR pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis.

(5) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under Section 3.5.20 of this Part for a PAL for that pollutant. Instead, the definition of "PAL Major Modification" in Section 3.5.20 of this Part shall apply.

"Major Stationary Source" shall mean:

(1) any of the following stationary sources (as defined in this Part) of air pollutants which emits, or has the potential to emit (as defined in this Part), 100 tons per year or more of any regulated NSR pollutant:

- carbon black plants (furnace process);
- charcoal production plants;
- chemical process plants;
- coal cleaning plants (with thermal dryers);
- coke oven batteries;
- fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;
- fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input;
- fuel conversion plants;
- glass fiber processing plants; and
- hydrofluoric acid plants;
- sulfuric acid plants;
- nitric acid plants;
- iron and steel mill plants;
- kraft pulp mills;
- lime plants;
- municipal incinerators capable of charging more than 250 tons of refuse per day;
- petroleum refineries;
- petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- phosphate rock processing plants;
- portland cement plants;
- primary aluminum ore reduction plants;
- primary copper smelters;
- primary lead smelters;
- primary zinc smelters;
- secondary metal production plants;
- sintering plants;
- sulfur recovery plants;
- taconite ore processing plants;

(2) notwithstanding the stationary source size specified in Subparagraph (1) above, any stationary source which emits, or has the potential to emit, 250 tons per year or more of any regulated NSR pollutant;

(3) any physical change that would occur at a stationary source not otherwise qualifying under this Paragraph as a major stationary source, if the changes would constitute a major stationary source by itself or

(4) a stationary source that is considered major for VOC or NOx shall be considered major for ozone. (Amended March 10, 2016)

"Natural Conditions" includes naturally occurring phenomena that reduce visibility as measured in terms of visual range, contrast, or coloration.

"Necessary Preconstruction Approvals or Permits" shall mean those permits or approvals required under the State Implementation Plan.

"Net Emissions Increase" shall mean with respect to any regulated NSR pollutant:

(1) the amount by which the sum of the following exceeds zero:

(i) any increase in emissions as calculated pursuant to Paragraphs 3.5.1(e) through (i) of this Part from a particular physical change or change in method of operation at a stationary source; and

(ii) any other increases and decreases in actual emission at the source that are contemporaneous with the particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases under this Paragraph shall be determined as provided in the definition of "baseline actual emissions" in this Part, except that Subdivisions (1)(iii) and (2)(iv) of that definition shall not apply.

(2) an increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:

(i) the date five (5) years before construction (as defined in this Part) on the particular change commences (as defined in this Part); and

(ii) the date that the increase from the particular change occurs.

(3) an increase or decrease in actual emissions is creditable only if the Director has not relied on it in issuing a permit for the source under this Part, which is in effect when the increase in actual emissions from the particular change occurs.

(4) an increase or decrease in actual emissions of sulfur dioxide, particulate matter, or nitrogen oxides which occurs before the applicable minor source baseline date (see Subparagraph (3)of the definition of "baseline date" in this Part) is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available. With respect to particulate matter, only PM_{10} and $PM_{2.5}$ emissions can be used to evaluate the net emissions increase for PM_{10}. Only $PM_{2.5}$ emissions can be used to evaluate the net emissions increase for $PM_{2.5}$. (amended September 8, 2011)

(5) an increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.

(6) a decrease in actual emissions is creditable only to the extent that:

(i) the old level of actual emissions or the old level of allowable emissions (as defined in this Part), whichever is lower, exceeds the new level of actual emissions;

(ii) it is enforceable (as defined in this Part) at and after the time that actual construction on the particular change begins; and

(iii) it has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.

(7) an increase that results from a physical

change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

"Pollution prevention projects" shall mean any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants (including fugitive emissions) and other pollutants to the environment prior to recycling, treatment, or disposal. It does not mean recycling (other than certain "in-process recycling" practices), energy recovery, treatment, or disposal.

"Potential to Emit" shall mean the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Secondary emissions (as defined in this Part) do not count in determining the potential to emit of a stationary source.

"Predictive emissions monitoring system (PEMS)" means all of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O_2 or CO_2 concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

"Prevention of Significant Deterioration (PSD) program" means the preconstruction permit program in this Part. Any permit issued under this program is a major NSR permit.

"Project" means a physical change in, or change in the method of operation of, an existing major stationary source.

"Projected actual emissions" means

(1) The maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (consecutive 12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.

(2) In determining the projected actual emissions under Subparagraph (1) above (before beginning actual construction), the owner or operator of the major stationary source:

(i) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under these regulations; and

(ii) Shall include fugitive emissions to the extent quantifiable and emissions associated with startups and shutdowns; and

(iii) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions (see the definition of "baseline actual emissions" in this Part) and that are not resulting from the particular project, including any increased utilization due to product demand growth; or

(iv) In lieu of using the method set out in Subdivisions (2)(i) through (iii) above, may elect to use the emissions unit's potential to emit, in tons per year, as defined in this Part.

"Regulated NSR pollutant", for purposes of this Part, means the following:

(1) Any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the Administrator of EPA (e.g., volatile organic compounds and NO_X are precursors for ozone);

(2) Any pollutant that is subject to any standard promulgated under Section 111 of the Clean Air Act;

(3) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Clean Air Act; or

(4) Any pollutant that otherwise is subject to regulation under the Clean Air Act; except that any or all hazardous air pollutants either listed in Section 112 of the Clean Air Act, including compounds listed in 40 CFR Part 68 pursuant to Section 112(r) of the Clean Air Act, or added to the list pursuant to Section 112(b)(2) of the Clean Air Act, which have not been delisted pursuant to Section 112(b)(3) of the Clean Air Act, are not regulated NSR pollutants unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under Section 108 of the Clean Air Act.

(5) $PM_{2.5}$ and PM_{10} emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. Such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM, $PM_{2.5}$ and PM_{10}. Applicability determinations made prior to January 1, 2011 without accounting for condensable particulate matter shall not be considered invalid. (Amended March 10, 2016)

"Replacement unit" means an emissions unit for which all the criteria listed in subparagraphs (1) through (4) below are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced. A replacement unit is subject to all permitting requirements for modifications under this Part.

(1) The emissions unit is a reconstructed unit within the meaning of 40 CFR §60.15(b)(1), or the emissions unit completely takes the place of an existing emissions unit.

(2) The emissions unit is identical to or functionally equivalent to the replaced emissions unit. A functionally equivalent unit would be a unit that serves the same purpose as the replaced unit. The Director shall be the determiner of whether a unit is functionally equivalent to the replaced unit.

(3) The replacement does not alter the basic design parameters of the process unit. Basic design parameters shall include, but not be limited to, maximum hourly heat input, maximum hourly fuel utilization, or maximum hourly raw material feed, as appropriate. Basic design parameters of a replaced unit shall also include all source specific emission limits and/or monitoring requirements. The Director shall be the determiner of whether the basic design parameters of the replaced unit are altered.

(4) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit. (Added March 10, 2016).

"Repowering" means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetoydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the

performance of technology in widespread commercial use as of November 15, 1990.

(1) Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Reserved.

Reserved.

Reserved.

"Secondary Emissions" shall mean emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this Part, secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions may include, but are not limited to:

(1) emissions from ships or trains coming to or from the new or modified stationary source; and

(2) emissions from any offsite support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification.

"Significant" shall mean:

(1) in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant and Emissions Rate (tons per year) (amended September 8, 2011)	
Carbon monoxide	100
Nitrogen oxides	40
Sulfur dioxide	40
Particulate matter	25
PM_{10}	15
$PM_{2.5}$	10 (of direct $PM_{2.5}$) 40 (of SO_2 or NOx)
Ozone	40 (of VOC or NO_x)
Lead	0.6
Fluorides (excluding HF)	3
Sulfuric acid mist	7
Hydrogen sulfide (H_2S)	10
Total reduced sulfur (including H_2S)	10
Reduced sulfur compounds (including H_2S)	10
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	3.5×10^{-6}
Municipal waste combustor metals (measured as particulate matter)	15
Municipal waste combustor acid gases (measured as sulfur dioxide, and hydrogen chloride	40
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	50
Greenhouse gases (GHG) CO_2e	75,000

(2) Significant means, in reference to a net emissions increase or the potential of a source to emit a regulated NSR pollutant that Subparagraph (1) above does not list: 100 TPY.

(3) notwithstanding Subparagraph(1) above, significant shall mean any emissions rate or any net emissions increase, excluding GHGs, associated with a major stationary source or major modification which would construct within ten (10) kilometers of a Class I area and have an impact on such area equal to or greater than one (1) microgram per cubic meter (24-hour average).

(4) For GHGs, a source or modification would not be significant unless it results in:

(i) An emissions increase and a net emissions increase in GHGs on a total mass basis, and

(ii) A significant emissions increase and a significant net emissions increase in GHGs on a CO_2e basis.

"Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is significant (as defined in this Part) for that pollutant.

"Stationary Source" shall mean any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.

"Temporary clean coal technology demonstration project" means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

"Visibility Impairment" means any humanly perceptible change in visibility (light extinction, visual range, contrast, coloration) from that which would have existed under natural conditions.

3.5.3 Review of Major Stationary Sources and Major Modifications - Source Applicability and Exemptions. (amended January 25, 1996)

(a) No major stationary source or major modification shall begin actual construction unless, as a minimum, requirements contained in Sections 3.5.4 through 3.5.12 of this Part have been met.

(b) The requirements contained in Sections 3.5.4 through 3.5.12 shall apply to any major stationary source and any major modification with respect to each regulated NSR pollutant that it would emit, except as this Section would otherwise allow.

(c) The requirements contained in Sections 3.5.4 through 3.5.12 apply only to any major stationary source or major modification that would be constructed in an area designated as attainment or unclassified under Section 107(d)(1) (A)(ii) or (iii) of the CAA.

(d) The requirements contained in Sections 3.5.4 through 3.5.12 shall not apply to a major stationary source or major modification, if:

(1) The source or modification would be a nonprofit health or nonprofit educational institution, or a major modification would occur at such an institution; or

(2) The source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification, and the source does not belong to any of the following categories:

- Coal cleaning plants (with thermal dryers);
- Kraft pulp mills;
- Portland cement plants;
- Primary zinc smelters;
- Iron and steel mills;
- Primary aluminum ore reduction plants;
- Primary copper smelters;
- Municipal incinerators capable of charging more than 250 tons of refuse per day;
- Hydrofluoric, sulfuric, or nitric acid plants;
- Petroleum refineries;
- Lime plants;
- Phosphate rock processing plants;
- Coke oven batteries;
- Sulfur recovery plants;
- Carbon black plants (furnace process);
- Primary lead smelters;
- Fuel conversion plants;
- Sintering plants;
- Secondary metal production plants
- Chemical Process plants;

- Fossil-fuel boilers or combination there of totaling more than 250 million BTU per hour heat input;
- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- Taconite ore processing plants;
- Glass fiber processing plants;
- Charcoal production plants;
- Fossil fuel-fired steam electric plants of more than 250 million British thermal unit per hour heat input;
- Any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the CAA; or

(3) the source is a portable stationary source which has previously received a permit under this Part; and

(i) the owner or operator proposes to relocate the source and emissions of the source at the new location would be temporary; and

(ii) the emissions from the source would not exceed its allowable emissions; and

(iii) the emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated; and

(iv) reasonable notice is given to the Director prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the Director not less than ten (10) days in advance of the proposed relocation unless a different time duration is previously approved by the Director.

(e) The requirements of Sections 3.5.4 through 3.5.12 shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment under Section 107 of the

CAA.

(f) The requirements of Sections 3.5.5, 3.5.7 and 3.5.9 shall not apply to a major stationary source or major modification with respect to a particular pollutant if the allowable emissions of that pollutant from the source or the new emissions increase of that pollutant from the modification:

(1) would impact no Class I area and no area where an applicable increment is known to be violated, and

(2) would be temporary.

(g) The requirements of Sections 3.5.5, 3.5.7 and 3.5.9 as they relate to any maximum allowable increase for a Class II area shall not apply to a major modification at a stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each regulated NSR pollutant from the modification after the application of BACT would be less than 50 tons per year.

(h) The Director may exempt a stationary source or modification from the requirements of Section 3.5.7 with respect to monitoring for a particular pollutant if:

(1) the emissions increase of the pollutant from the new source or the net emissions increase of the pollutant from the modification would cause, in any area, air quality impacts which are less than the following amounts:

Carbon monoxide	575 $\mu g/m^3$, 8-hour average;
Nitrogen dioxide	14 $\mu g/m^3$, annual average;
PM_{10}	10 $\mu g/m^3$, 24-hour average;
$PM_{2.5}$	4 $\mu g/m^3$, 24-hour average;
Sulfur dioxide	13 $\mu g/m^3$, 24-hour average;
Ozone;- [1]	
Lead	0.1 $\mu g/m^3$, 3- month average;

[1]No de minimis air quality level is provided for Ozone; however, any net increase of 100 tons per year or more of VOC or NOx subject to Part 3.5 would be required to perform an ambient impact analysis including the gathering of ambient air quality data.

Fluorides	0.25 $\mu g/m^3$ 24-hour average;
Total reduced sulfur	10 $\mu g/m^3$, 1- hour average;
Hydrogen sulfide	0.2 $\mu g/m^3$, 1-hour average;

or

(2) the concentrations of the pollutant in the area that the source or modification would affect are less than the concentrations listed in Subparagraph (1) above, or the pollutant is not listed in Subparagraph (1) above; or

(3) the owner or operator of the stationary source or modification submits an application under this Part that the Director determines is complete, except with respect to the requirements for monitoring PM_{10} in Section 3.5.7, on or before June 1, 1988. If a complete permit application is received after June 1, 1988, but not later than December 1, 1988, the requirements for PM_{10} monitoring under Section 3.5.7 apply in that data shall have been gathered over at least the period from February 1, 1988, to the date the complete application is received, except that if the Director determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than four months) then the shorter period of data gathering will suffice to meet the requirements of Section 3.5.7.

(i) At the discretion of the Director, the requirements for air quality monitoring of PM_{10} in Subparagraphs 3.5.7 (a)(1) through (4) of this Part may not apply to a particular source or modification when the owner or operator of the source or modification submits an application for a permit under this Part on or before June 1, 1988 and the Director subsequently determines that the application as submitted before that date was complete, except with respect to the requirements for monitoring PM_{10} in Subparagraphs 3.5.7(a)(1) through (4).

(j) The requirements for air quality monitoring of PM_{10} in Subparagraphs 3.5.7(a)(2) and (4) and Paragraph 3.5.7(c) shall apply to a particular source or modification if the owner or operator of the source or modification submits an application for a permit under this Part after June 1, 1988 and no later than December 1, 1988. The data shall have been gathered over at least the period from February 1, 1988 to the date the application becomes otherwise complete in accordance with

the provisions set forth under Subparagraph 3.5.7(a)(8), except that if the Director determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than 4 months), the data that Subparagraph 3.5.7(a)(3) requires shall have been gathered over that shorter period.

(k) Any project which is an environmentally beneficial project as defined in this Part shall not be considered a major modification as defined in Section 3.5.2 of this Part and is exempt from all provisions of this Part except Sections 3.5.5, 3.5.6, 3.5.8, 3.5.10 and 3.5.11.

(l) The requirements of Sections 3.5.5, 3.5.6, 3.5.7, 3.5.9, and 3.5.10 of this Part shall not apply with respect to GHGs for any major stationary source or major modification.

3.5.4 Control Technology Review.

(a) A major stationary source or major modification shall meet each applicable emissions limitation under the State Implementation Plan and each applicable limitation standard and standard of performance under 40 CFR 60 and 61.

(b) A new major stationary source shall apply BACT for each regulated NSR pollutant that it would have the potential to emit in significant amounts.

(c) A major modification shall apply BACT for each regulated NSR pollutant for which it would result in a significant net emissions increase at the source. This requirement applies to each proposed emission unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.

(d) For phased construction projects, the determination of BACT shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than eighteen (18) months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of BACT for the source.

3.5.5 Source Impact Analysis.

(a) The owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of:

(1) any National Ambient Air Quality Standard in any air quality control region; or

(2) any applicable maximum allowable increase over the baseline concentration in any area.

(b) Significant Impact Levels. The demonstration required in Paragraph 3.5.5(a) is deemed to have been made if the emissions increase for the new stationary source alone or from the modification alone would cause, in all areas, air quality impacts less than the following amounts:

Pollutant	Averaging Time	Class I Significance Level	Class II Significance Level
SO_2	3-hour		25 µg/m^3
	24-hour		5 µg/m^3
	Annual		1 µg/m^3
PM_{10}	24-hour		5 µg/m^3
	Annual		1 µg/m^3
$PM_{2.5}$	24-hour	0.07 µg/m^3	1.2 µg/m^3
	Annual	0.06 µg/m^3	0.3 µg/m^3
NO_2	Annual		1 µg/m^3
CO	1-hour		2,000 µg/m^3
	8-hour		500 µg/m^3

3.5.6 Air Quality Models. All estimates of ambient concentrations required under this Part shall be based on the applicable air quality models, data bases, and other requirements specified in the "Guideline on Air Quality Models". (U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards Research Triangle Park, N.C. 27711)

3.5.7 Air Quality Analysis.

(a) Preapplication Analysis.

(1) Any application for a permit under this Part shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:

(i) for the source, each pollutant that it would have the potential to emit in a significant amount;

(ii) for the modification, each pollutant for which it would result in a significant net emissions increase.

(2) With respect to any such pollutant for which no NAAQS exists, the analysis shall contain such air quality monitoring data as the Director determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.

(3) With respect to any such pollutant (other than nonmethane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase.

(4) In general, the continuous air quality monitoring data that is required shall have been gathered over a period of at least one (1) year and shall represent the year preceding receipt of the application, except that, if the Director determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but

not to be less than four (4) months), the data that is required shall have been gathered over at least that shorter period.

(5) Reserved.

(6) The owner or operator of a proposed stationary source or modification of VOC who satisfies all conditions of Part 3.5 may provide post-approval monitoring data for ozone in lieu of providing preconstruction data as required under Paragraph (a) of this Section.

(7) For any application that becomes complete, except as to the requirements of Subparagraph 3.5.7(a)(3) and (4) pertaining to PM_{10}, after December 1, 1988 and no later than August 1, 1989 the data that Subparagraph 3.5.7(a)(3) requires shall have been gathered over at least the period from August 1, 1988 to the date the application becomes otherwise complete, except that if the Director determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than 4 months), the data that Subparagraph 3.5.7(a)(3) requires shall have been gathered over that shorter period.

(8) With respect to any requirements for air quality monitoring of PM_{10} under Paragraphs 3.5.3(i) and (j) of this Part, the owner or operator of the source or modification shall use a monitoring method approved by the Director and shall estimate the ambient concentrations of PM_{10} using the data collected by such approved monitoring method in accordance with estimating procedures approved by the Director.

(b) Post-construction Monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the Director determines is necessary to determine the impact for said source or modification may have, or is having, on air quality in any area.

(c) Operations of Monitoring Stations. The owner or operator of a major stationary source or major modification shall meet Federal monitoring quality assurance requirements during the operation of monitoring

stations for purposes of satisfying Section 3.5.7.

(d) Visibility Monitoring. The Director may require monitoring of visibility in any Federal Class I area near the proposed new stationary source or major modification for such purposes and by such means as the Director deems necessary and appropriate.

3.5.8 Source Information. The owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or to make any determination required under this Part.

(a) With respect to a source or modification to which Sections 3.5.4, 3.5.5, 3.5.7, and 3.5.9 apply, such information shall include:

(1) a description of the nature, location, design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout.

(2) a detailed schedule for construction of the source or modification;

(3) a detailed description as to what system of continuous emission reduction is planned for the source or modification, emission estimates and any other information necessary to determine that BACT would be applied.

(b) Upon request of the Director, the owner or operator shall also provide information on:

(1) the air quality impact of the source or modification, including meteorological and topographical data necessary to estimate such impact; and

(2) the air quality impacts and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.

3.5.9 Additional Impact Analyses.

The owner or operator shall provide an analysis of

the impact on visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.

(b) The owner or operator shall provide analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial, and other growth associated with the source or modification.

3.5.10 Sources Impacting Federal Class I Areas - Additional Requirements. (amended January 25, 1996)

(a) Notice to Federal Land Managers and to EPA. The Director shall provide notice of any permit application for a proposed major stationary source or major modification the emissions from which would affect a Class I area to EPA, the Federal Land Manager and the Federal official charged with direct responsibility for management of any lands within any such area. The Director shall provide such notice promptly after receiving the application. The Director shall also provide EPA, the Federal Land Manager and such federal officials with notice of every action related to the consideration of such permit.

(b) The Director shall notify all affected Federal Land Managers within 30 days of receipt of an advance notification of any permit application for a proposed major stationary source or modification, the emissions from which may affect a Class I Area. The Director shall provide written notification to all affected Federal Land Managers within 30 days of receiving the permit application. At least 30 days prior to the publication of the notice for public comment on the application, the Director shall provide the Federal Land Manager with a copy of all information relevant to the permit application including an analysis provided by the source of the potential impact of the proposed source on visibility.

(c) Visibility analysis. The Director shall consider any analysis performed by the Federal Land Manager concerning visibility impairment if the analysis is

received within 30 days of being provided the permit application information and analysis required by Paragraph (b) of this Section. Where the Director finds that such an analysis does not demonstrate to the satisfaction of the Director that an adverse impact on visibility will result in the Federal Class I area, the Director must, in the notice of public comment on the permit application, either explain his decision or give notice as to where the explanation can be obtained.

(d) Denial - Impact on Air Quality Related Values. The Federal Land Manager of any such lands may demonstrate to the Director that the emissions from a proposed source or modification would have an adverse impact on the air quality related values (including visibility) of those lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the Director concurs with such demonstration, then he shall not issue the permit.

(e) Class I Variances. The owner or operator of a proposed source or modification may demonstrate to the Federal Land Manager that the emissions from such source or modification would have no adverse impact on the air quality related values of any such lands (including visibility), notwithstanding that the change in air quality resulting from emissions from such source or modification would cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the Federal Land Manager concurs with such demonstration and he so certifies, the Director may issue the permit with such emission limitations as may be necessary to assure that emissions of sulfur dioxide, $PM_{2.5}$ PM_{10}, and nitrogen oxides would not exceed the following maximum allowable increases over baseline concentration for such pollutants:

Pollutant	Maximum Allowable Increase (micrograms per cubic meter)
PM_{10}:	Annual arithmetic mean....17 24-hour maximum 30
$PM_{2.5}$:	Annual arithmetic mean.....4 24-hour maximum..... 9
Sulfur Dioxide:	Annual arithmetic mean....20 24-hour maximum..... 91 3-hour maximum.....325
Nitrogen Dioxide:	Annual arithmetic mean... 25

provided that the applicable requirements of this Part are otherwise met.

(f) Sulfur Dioxide Variance by Governor with Federal Land Manager's Concurrence. The owner or operator of a proposed source of modification which cannot be approved under Paragraph (c) of this Section may demonstrate to the Governor that the source or modification cannot be constructed by reason of any maximum allowable increase for sulfur dioxide for a period of twenty-four (24) hours or less applicable to any Class I area and, in the case of Federal mandatory Class I areas, that a variance under this clause would not adversely affect the air quality related values of the area (including visibility). The Governor, after consideration of the Federal Land Manager's recommendation (if any) and subject to his concurrence, may, after notice and public hearing, grant a variance from such maximum allowable increase. If such variance is granted, the Director shall issue a permit to such source or modification pursuant to the requirements of Section 3.5.11 of this Part; provided, that the applicable requirements of this Part are otherwise met.

(g) Variance by the Governor with the President's Concurrence. In any case where the governor recommends a variance in which the Federal Land Manager does not concur, the recommendations of the Governor and the Federal Land Manager shall be transmitted to the

President. The President may approve the Governor's recommendation if the President finds that the variance is in the national interest. If the variance is approved, the Director shall issue a permit pursuant to the requirements of Section 3.5.11 of this Part; provided, that the applicable requirements of this Part are otherwise met.

(h) Emission Limitations for Presidential or Gubernatorial Variance. In the case of a permit issued pursuant to Paragraphs (f) or (g) of this Section, the source or modification shall comply with such emission limitations as may be necessary to assure that emissions of sulfur dioxide from the source or modification would not (during any day on which the otherwise applicable maximum allowable increases are exceeded) cause or contribute to concentrations which would exceed the following maximum allowable increases over the baseline concentration and to assure that such emissions would not cause or contribute to concentrations which exceed the otherwise applicable maximum allowable increases for periods of exposure of twenty-four (24) hours or less for more than eighteen (18) days, not necessarily consecutive, during any annual period.

Period of exposure	Maximum Allowable Increase (micrograms per cubic meter)	
	Terrain areas	
	Low	High
24-hour maximum	36	62
3-hour maximum	130	221

3.5.11 Public Participation.

(a) After receipt of an application for an Air Permit or any addition to such application, the Director shall advise the applicant of any deficiency in the application or in the information submitted. In the event of such a deficiency, the date of receipt of the application shall

be, for the purpose of this Part, the date on which the Director received all required information.

(b) Within one (1) year after receipt of a complete application, the Director shall make a final determination of the application. This involves performing the following actions in a timely manner:

(1) make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

(2) make available in at least one location in each region in which the proposed source or modification would be constructed a copy of all materials the applicant submitted, a copy of the preliminary determination and a copy or summary of other materials, if any, considered in making the preliminary determination.

(3) notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source or modification would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and the opportunity for written public comment, as well as comment at a public hearing. Public comments will be accepted for at least 30 days from the date of initial publication.

(4) send a copy of the notice of public comment to the applicant, to EPA and to officials and agencies having cognizance over the locations where the proposed construction would occur as follows: any other State or local air pollution control agencies, the chief executives of the city and county where the source or modification would be located, any comprehensive regional land use planning agency and any State, Federal Land Manager, or Indian governing body whose lands may be affected by emissions from the source or modification.

(5) provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source or modification, alternatives to the source or modification, the control technology required, and other appropriate considerations.

(6) consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. No later than ten (10) days after the close of the public comment period, the applicant may, as a part of the public record, submit a written response to any comments submitted by the public. The Director shall consider the applicants response in making a final decision. The Director shall make all comments available for public inspection in the same location where the Director made available preconstruction information relating to the proposed source or modification.

(7) make a final determination whether construction should be approved, approved with conditions or disapproved pursuant to this Part.

(8) notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the Director made available preconstruction information and public comments relating to the source or modification.

3.5.12 Source Obligation

(a) An Air Permit authorizing construction shall become invalid if construction is not commenced within twenty-four (24) months after receipt of such approval, if construction is discontinued for a period of twenty-four (24) months or more, or if construction is not completed within a reasonable time. The Director may extend the twenty-four (24) month period upon satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within twenty-four (24) months of the projected and approved commencement date.

(b) An Air Permit authorizing construction shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan and any other requirements under local, State or Federal law.

(c) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of Sections 3.5.4 through 3.5.12 shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(d) The provisions of this Paragraph apply to projects at an existing emissions unit at a major stationary source (other than projects at a source with a PAL), that are not excluded from the definition of physical change or change in the method of operation, where there is not a reasonable possibility that the project is a part of a major modification and may result in a significant emissions increase and the owner or operator elects to use the method specified in Subdivisions (2)(i) through (iii) of the definition of "projected actual emissions" in this Part) for calculating projected actual emissions.

(1) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

(i) A description of the project;

(ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and

(iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under Subdivision (2)(iii) of the definition of "projected actual emissions" in this Part and an explanation for why such amount was excluded, and any netting calculations, if applicable.

(2) The owner or operator of the source shall make the information required to be documented and

maintained pursuant to this Paragraph available for review upon a request for inspection by the Department or the general public.

(3) Nothing in this Paragraph shall be construed to exempt the owner or operator of such a unit from obtaining any minor source Air Permit in accordance with the requirements of this Chapter.

(e) The provisions of this Paragraph 3.5.12(e) apply to projects at an existing emissions unit at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility that a project that is not a part of a major modification, and that is not excluded from the definition of physical change or change in the method of operation, may result in a significant emissions increase and the owner or operator elects to use the method specified in Subdivisions (2)(i) through (iii) of the definition of "projected actual emissions" in this Part for calculating projected actual emissions.

(1) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

(i) A description of the project;

(ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and

(iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under Subdivision (2)(iii) of the definition of "projected actual emissions" in this Part and an explanation for why such amount was excluded, and any netting calculations, if applicable.

(2) Before beginning actual construction, the owner or operator shall provide a copy of the information set out in Subparagraph (e)(1) above to the Director. Nothing in this Subparagraph shall be construed to require the owner or operator of such a unit to obtain

any determination from the Director before beginning actual construction; however, nothing in this Subparagraph shall be construed to exempt the owner or operator of such a unit from obtaining any minor source Air Permit in accordance with the requirements of this Chapter.

(3) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in Subdivision (e)(1)(ii) above ; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

(4) The owner or operator shall submit a report to the Director within 60 days after the end of each year during which records must be generated under Subparagraph (e)(3) above. The report shall contain the following:

(i) All information required by Subparagraph (e)(1) of this Paragraph.

(ii) The name, address and telephone number of the major stationary source;

(iii) The annual emissions as calculated pursuant to Subparagraph (e)(3) of this Paragraph; and

(iv) Any other information that the owner or operator wishes to include in the report.

(5) The owner or operator of the source shall make the information required to be documented and maintained pursuant to this Paragraph available for review upon a request for inspection by the Department.

(6) All information submitted to the Department pursuant to the requirements of this Paragraph shall be available for review at the request of any member of the public in accordance with the Department's public records review procedures found in Part 1.6 of these regulations.

3.5.13 Innovative Control Technology.

(a) An owner or operator of a proposed major stationary source or major modification may request the Director in writing no later than the close of the comment period under Section 3.5.11 to approve a system of innovative control technology.

(b) The Director shall determine that the source or modification may employ a system of innovative control technology, if:

(1) the proposed control system would not cause or contribute to an unreasonable risk to public health, welfare or safety in its operation or function;

(2) the owner or operator agrees to achieve a level of continuous emissions reductions equivalent to that which would have been required under Paragraph 3.5.4(b) by a date specified by the Director. Such date shall not be later than four (4) years from the time of startup or seven (7) years from permit issuance;

(3) the source or modification would meet the requirements of Sections 3.5.4 and 3.5.5 based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified by the Director;

(4) the source or modification would not before the date specified by the Director:

(i) cause or contribute to a violation of an applicable National Ambient Air Quality Standard; or

(ii) impact any Class I area; or

(iii) impact any area where an applicable increment is known to be violated;

(5) the consent of the Governor of any other affected state is secured; and

(6) all other applicable requirements including those for public participation have been met.

(c) The Director shall withdraw any approval to employ a system of innovative control technology made under this Section, if:

(1) the proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or

(2) the proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare or safety; or

(3) the Director decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare or safety.

(d) If a source or modification fails to meet the required level of continuous emission reduction within the specified time period or the approval is withdrawn in accordance with Paragraph (c) of this Section, the Director may allow the source or modification up to an additional three (3) years to meet the requirement for the application of BACT through use of a demonstrated system of control.

3.5.14 Ambient Air Increments. In areas designated as Class I, II, or III, increases in pollutant concentration over the baseline shall be limited to the following: (amended September 8, 2011)

Maximum Allowable Increase
(micrograms per cubic meter)

Pollutant	Class I
PM_{10}:	
Annual arithmetic mean	4
24-hour maximum	8
$PM_{2.5}$:	
Annual arithmetic mean	1
24-hour maximum	2
Sulfur dioxide:	
Annual arithmetic mean	2

24-hour maximum..... 5
3-hour maximum..... 25

Nitrogen dioxide:
Annual arithmetic mean 2.5

Class II

PM_{10}:
Annual arithmetic mean 17
24-hour maximum..... 30

$PM_{2.5}$:
Annual arithmetic mean 4
24-hour maximum..... 9

Sulfur dioxide:
Annual arithmetic mean 20
24-hour maximum..... 91
3-hour maximum..... 512

Nitrogen dioxide:
Annual arithmetic mean 25

Class III

PM_{10}:
Annual arithmetic mean 34
24-hour maximum..... 60

$PM_{2.5}$:
Annual arithmetic mean 8
24-hour maximum..... 18

Sulfur dioxide:
Annual arithmetic mean 40
24-hour maximum..... 182
3-hour maximum..... 700

Nitrogen dioxide:
Annual arithmetic mean 50

For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

3.5.15 Ambient Air Ceilings. No concentration of a

pollutant shall exceed:

(a) the concentration permitted under the National Secondary Ambient Air Quality Standard, or

(b) the concentration permitted under the National Primary Ambient Air Quality Standard, whichever concentration is lowest for the pollutant for a period of exposure.

3.5.16 Area Classifications.

(a) The following area, which was in existence on August 7, 1977, shall be a Class I area and may not be redesignated: the Sipsey Wilderness Area, located in Franklin, Winston, and Lawrence counties, Alabama.

(b) Any other area is initially designated Class II.

3.5.17 Exclusions from Increment Consumption. (amended January 25, 1996)

(a) The following concentrations shall be excluded in determining compliance with a maximum allowable increase:

(1) concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum products, natural gas, or both by reason of an order in effect under Section 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order;

(2) concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act over the emissions from such sources before the effective date of such plan;

(3) concentrations of PM_{10} attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources;

(4) the increase in concentrations attributable

to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration; and

(5) concentrations attributable to the temporary increase in emissions of sulfur dioxide, PM10, or nitrogen oxides from stationary sources which are affected by plan revisions approved by the EPA as being exempt from increment consumption.

(b) No exclusion of such concentrations shall apply for more than five (5) years after the effective date of the order to which Subparagraph (a)(1) or the plan to which Subparagraph (a)(2) refers, whichever is applicable. If both such order and plan are applicable, no such exclusion shall apply for more than five (5) years after the later of such effective dates.

3.5.18 Reserved.

3.5.19 Permit Rescission.

(a) Any owner or operator of a stationary source or modification who holds a permit for the source or modification which was issued under Part 3.5 as in effect on July 30, 1987 or any earlier version of this Part may request that the Director rescind the permit or a particular portion of the permit.

(b) The Director shall grant an application for rescission if the application shows that this Part would not apply to the source or modification.

(c) If the Director rescinds a permit under this Part, the public shall be given adequate notice of the rescission. Publication of an announcement of rescission in a newspaper of general circulation in the affected region within sixty (60) days of the rescission shall be considered adequate notice.

3.5.20 Actuals PALs. The provisions in Paragraphs 3.5.20(a) through (o) of this Part govern actuals PALs. (amended September 8, 2011)

(a) Applicability.

(1) The Director may approve the use of an actuals PAL for any existing major stationary source if the PAL meets the requirements in Paragraphs 3.5.20(a) through (o) of this Section. The term "PAL" shall mean "actuals PAL" throughout Section 3.5.20 of this Part.

(2) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in Paragraphs 3.5.20(a) through (o) of this Section, and complies with the PAL permit:

(i) Is not a major modification for the PAL pollutant;

(ii) Does not have to be approved through the PSD program;

(3) A major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.

(b) Definitions. For the purposes of this Section, the definitions in this Paragraph apply. When a term is not defined in this Paragraph, it shall have the meaning given in Section 3.5.2 of this Part or in the Clean Air Act.

"Actuals PAL" for a major stationary source means a PAL based on the baseline actual emissions (as defined in this Part) of all emissions units (as defined in this Part) at the source, that emit or have the potential to emit the PAL pollutant.

"Allowable emissions" means "allowable emissions" as defined in this Part, except as this definition is modified according to Subdivisions (2)(i) and (ii) below.

(i) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.

(ii) An emissions unit's potential to emit shall be determined using the definition of "potential to

emit" in this Part, except that the words "or enforceable as a practical matter" should be added after "enforceable."

"Small emissions unit" means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in this Part or in the Clean Air Act, whichever is lower.

"Major emissions unit" means:

(i) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant other than GHG as CO_2e, in an attainment area or

(ii) Any emissions unit that has the potential to emit 75,000 tons per year of GHG as CO_2e. (Amended March 10, 2016).

"Plantwide applicability limitation (PAL)" means an emission limitation expressed in tons per year, for a pollutant at a major stationary source that, is enforceable as a practical matter and established source-wide in accordance with this Section.

"PAL effective date" generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

"PAL effective period" means the period beginning with the PAL effective date and ending 10 years later.

"PAL major modification" means, notwithstanding the definitions for major modification and net emissions increase in this Part, any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.

"PAL permit" means the major NSR permit, the minor NSR permit, or the title V permit issued by the Director that establishes a PAL for a major stationary source.

"PAL pollutant" means the pollutant for which a PAL is established at a major stationary source.

"Significant emissions unit" means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in this Part or in the Clean Air Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in this Section.

(c) Permit application requirements. As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information to the Director for approval:

(1) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations, or work practices apply to each unit.

(2) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup and shutdown.

(3) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by Subparagraph 3.5.20(m)(1) of this Section.

(d) General requirements for establishing PALs.

(1) The Director is allowed to establish a PAL at a major stationary source, provided that at a minimum, the requirements in Subdivisions (1)(i) through (vii) below are met.

(i) The PAL shall impose an annual emission limitation in tons per year that is enforceable as a practical matter, for the entire major stationary source.

For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month total, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

(ii) The PAL shall be established in a PAL permit that meets the public participation requirements in Paragraph 3.5.20(e) of this Section.

(iii) The PAL permit shall contain all the requirements of Paragraph 3.5.20(g) of this Section.

(iv) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.

(v) Each PAL shall regulate emissions of only one pollutant.

(vi) Each PAL shall have a PAL effective period of 10 years.

(vii) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in Paragraphs 3.5.20(l) through (n) of this Section for each emissions unit under the PAL through the PAL effective period.

(2) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under Part 3.4 of this Chapter unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

(e) Public participation requirements for PALs. PALs for existing major stationary sources shall be established, renewed, or increased through a procedure that is consistent with those of this Part and 40 CFR Sections 51.160 and 51.161. This includes the requirement that the Director provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The Director must address all material comments before taking final action on the permit.

(f) Setting the 10-year actuals PAL level. The actuals PAL level for a major stationary source shall be established as the sum of the baseline actual emissions (as defined in this Part) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under the definition of "significant" in this Part or under the Clean Air Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shutdown after this 24-month period must be subtracted from the PAL level. Emissions from units on which actual construction began after the beginning of the 24-month period must be added to the PAL level in an amount equal to the potential to emit of the unit if the unit began operation less than 24 months prior to the submittal of the PAL application. Baseline actual emissions from units on which actual construction began after the beginning of the 24-month period and commenced operation 24 months or more prior to the submittal of the PAL application must be added to the PAL based upon any 24 month period since the unit commenced operation. The Director shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Director is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO_X to a new Rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL

level reduced by half of the original baseline emissions of such unit(s).

(g) Contents of the PAL permit. The PAL permit must contain, at a minimum, the information in Subparagraphs (g)(1) through (10) below.

(1) The PAL pollutant and the applicable source-wide emission limitation in tons per year.

(2) The PAL permit effective date and the expiration date of the PAL (PAL effective period).

(3) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL in accordance with Paragraph 3.5.20(j) of this Section before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the Director.

(4) A requirement that emission calculations for compliance purposes must include emissions from startups and shutdowns.

(5) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of Paragraph 3.5.20(i) of this Section.

(6) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total as required by Subparagraph 3.5.20(m)(1) of this Section.

(7) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under Paragraph 3.5.20(l) of this Section.

(8) A requirement to retain the records required under Paragraph 3.5.20(m) of this Section on site. Such records may be retained in an electronic format.

(9) A requirement to submit the reports required under Paragraph 3.5.20(n) of this Section by the required deadlines.

(10) Any other requirements that the Director deems necessary to implement and enforce the PAL.

(h) PAL effective period and reopening of the PAL permit. The requirements in Subparagraphs (h)(1) and (2) below apply to actuals PALs.

(1) PAL effective period. The Director shall specify a PAL effective period of 10 years.

(2) Reopening of the PAL permit.

(i) During the PAL effective period, the Director must reopen the PAL permit to:

(A) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL;

(B) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under Part 3.4 of this Chapter; and

(C) Revise the PAL to reflect an increase in the PAL as provided under Paragraph 3.5.20(k) of this Section.

(ii) The Director shall have discretion to reopen the PAL permit for the following:

(A) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) with compliance dates after the PAL effective date;

(B) Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and is required by these regulations; and

(C) Reduce the PAL if the Director determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on a published air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.

(iii) Except for the permit reopening in Subdivisions (h)(2)(i)(A) above for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of Paragraph 3.5.20(e) of this Section.

(i) Expiration of a PAL. Any PAL that is not renewed in accordance with the procedures in Paragraph 3.5.20(j) of this Section shall expire at the end of the PAL effective period, and the requirements in Subparagraphs (i)(1) through (5) below shall apply.

(1) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in Subdivisions (i)(1)(i) and (ii) below.

(i) Within the time frame specified for PAL renewals in Subparagraph 3.5.20(j)(2) of this Section, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Director) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under Subparagraph 3.5.20(j)(5) of this Section, such distribution shall be made as if the PAL had been adjusted.

(ii) The Director shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Director determines is appropriate.

(2) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Director may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS, or CPMS to demonstrate compliance with the allowable emission limitation.

(3) Until the Director issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under Subdivision 3.5.20(i)(1)(ii) of this Paragraph, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.

(4) Any physical change or change in the method of operation at the major stationary source will be subject to major NSR requirements if such change meets the definition of major modification in this Part.

(5) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, synthetic minor limit, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period.

(j) Renewal of a PAL.

(1) The Director shall follow the procedures specified in Paragraph 3.5.20(e) of this Section in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Director.

(2) Application deadline. A major stationary source owner or operator shall submit a timely application to the Director to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

(3) Application requirements. The application to renew a PAL permit shall contain the information required in Subdivisions (3)(i) through (iv) below.

(i) The information required in Subparagraphs 3.5.20(c)(1) through (3) of this Section.

(ii) A proposed PAL level.

(iii) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).

(iv) Any other information the owner or operator wishes the Director to consider in determining the appropriate level for renewing the PAL.

(4) PAL adjustment. In determining whether and how to adjust the PAL, the Director shall consider the options outlined in Subdivisions (4)(i) and (ii) below. However, in no case may any such adjustment fail to comply with Subdivision (4)(iii) below.

(i) If the emissions level calculated in accordance with Paragraph 3.5.20(f) of this Section is equal to or greater than 80 percent of the PAL level, the Director may renew the PAL at the same level without considering the factors set forth in Subdivision (4)(ii) below; or

(ii) The Director may set the PAL at a level that he or she determines to be more representative of the source's baseline actual emissions, or that he or she determines to be more appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Director in his or her written rationale.

(iii) Notwithstanding Subdivisions (4)(i) and (ii) above:

(A) If the potential to emit of the major stationary source is less than the PAL, the Director shall adjust the PAL to a level no greater than the potential to emit of the source; and

(B) The Director shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions

of Paragraph 3.5.20(k) of this Section (increasing a PAL).

(5) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the Director has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.

(k) Increasing a PAL during the PAL effective period.

(1) The Director may increase a PAL emission limitation only if the major stationary source complies with the provisions in Subdivisions (1)(i) through (iv) below.

(i) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.

(ii) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

(iii) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in

Subdivision (k)(1)(i) above, regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the major NSR process (for example, BACT), even though they have also become subject to the PAL or continue to be subject to the PAL.

(iv) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(2) The Director shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with Subdivision (k)(1) (ii) above, plus the sum of the baseline actual emissions of the small emissions units.

(3) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of Paragraph 3.5.20(e) of this Section.

(l) Monitoring requirements for PALs.

(1) General requirements.

(i) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.

(ii) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in Subdivisions (l)(2)(i) through (iv) of this Paragraph and must be approved by the Director.

(iii) Notwithstanding Subdivision (1)(ii) above, an alternative monitoring approach that meets Subdivision (1)(i) above may be employed if approved by the Director.

(iv) Failure to use a monitoring system that meets the requirements of this Rule renders the PAL invalid.

(2) Minimum performance requirements for approved monitoring approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in Subparagraphs (1)(3) through (9) of this Paragraph:

(i) Mass balance calculations for activities using coatings or solvents;

(ii) CEMS;

(iii) CPMS or PEMS; and

(iv) Emission factors.

(3) Mass balance calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:

(i) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;

(ii) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and

(iii) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Director determines there is site-

specific data or a site-specific monitoring program to support another content within the range.

(4) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:

(i) CEMS must comply with applicable Performance Specifications found in 40 CFR Part 60, appendix B; and

(ii) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.

(5) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:

(i) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and

(ii) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Director, while the emissions unit is operating.

(6) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:

(i) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

(ii) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and

(iii) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL

permit issuance, unless the Director determines that testing is not required.

(7) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.

(8) Notwithstanding the requirements in Subparagraphs (l)(3) through (7) above, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Director shall, at the time of permit issuance:

(i) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or

(ii) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.

(9) Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Director. Such testing must occur at least once every 5 years after issuance of the PAL.

(m) Recordkeeping requirements.

(1) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of this Section and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.

(2) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:

(i) A copy of the PAL permit application and any applications for revisions to the PAL; and

(ii) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.

(n) Reporting and notification requirements. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Director in accordance with the applicable title V operating permit. The reports shall meet the requirements in Subparagraphs (n)(1) through (3) below.

(1) Semi-annual report. This report shall contain the information required in Subdivisions (n)(1)(i) through (vii) below.

(i) The identification of owner and operator and the permit number.

(ii) Total annual emissions (tons/year)

based on a 12-month rolling total for each month in the reporting period recorded pursuant to Subparagraph 3.5.20(m)(1) of this Section.

(iii) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.

(iv) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.

(v) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.

(vi) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system

continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by Subparagraph 3.5.20(1)(7) of this Section.

(vii) A signed statement by a responsible official (as defined in this Chapter) certifying the truth, accuracy, and completeness of the information provided in the report.

(2) Deviation report. The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to Subparagraph 3.9.5(e)(2) shall satisfy this reporting requirement. The reports shall contain the following information:

(i) The identification of owner and operator and the permit number;

(ii) The PAL requirement that experienced the deviation or that was exceeded;

(iii) Emissions resulting from the deviation or the exceedance; and

(iv) A signed statement by a responsible official (as defined in this Chapter) certifying the truth, accuracy, and completeness of the information provided in the report.

(3) Re-validation results. The owner or operator shall submit to the Director the results of any re-validation test or method within 3 months after completion of such test or method.

(o) Transition requirements.

(1) The Director may not issue a PAL that does not comply with the requirements in this Section after the effective date of this Section.

(2) The Director may supersede any PAL that was established prior to the effective date of this Section with a PAL that complies with the requirements of this Section.

3.5.21 If any provision of this Part, or the application of such provision to any person or circumstance, is held invalid, the remainder of this Part, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

3.6 Permit Application Fees. (Amended March 10, 2016)

3.6.1 Applicability. The provisions of this Part shall apply to any person making application for the issuance, reissuance or modification of an Air Permit, a Synthetic Minor Operating Permit, or a Major Source Operating Permit.

3.6.2 Definitions. The words or phrases used in this Part shall have the meanings provided in the rules and regulations unless the word or phrase is defined in this Section. For purposes of this Part, the following words or phrases shall have the following meanings:

(a) "greenfield site" shall mean a new development or the initial operation of a new facility or a facility or operation not previously permitted.

(b) Reserved.

3.6.3 Exemptions. No fee is required for applications for a permit modification to correct clerical, typographical or calculation errors.

3.6.4 Permit Application Fees.

(a) Except as provided in Paragraph (b) of this Section, any person making application for the issuance, reissuance or modification of a permit shall be subject to a three-part application fee consisting of the following:

(1) a fee of $1,610 per application relating to a greenfield site, except gasoline dispensing facilities subject to permitting under the requirements for Stage I vapor recovery, which are specifically exempted from the greenfield site fee, for permit applications received after January 1, 1994;

(2) a fee which shall be the sum of the fees for each applicable type of permit application, and each action deemed necessary to complete evaluation of the application, as specified in Fee Schedule, Section 3.6.6.

(3) a public hearing fee of $8,450 if a public hearing relating to the permit application is held.

(b) Any person making application for modification of a permit to change the name of the permittee only or to transfer the permit only shall be subject to a $800 fee per application. Applicants for an administrative permit amendment under Section 3.9.11 of this Chapter shall be subject to a $500 fee per application. Applicants for coverage under a General Permit issued pursuant to Section 3.9.7 of this Chapter shall be subject to a $500 fee per application. Applicants for renewal of an Air Permit or a Synthetic Minor Operating Permit shall be subject to a $500 fee per application.

3.6.5 Payment of Fees.

(a) Payment of permit application fees required under Section 3.6.4 shall be included with the permit application. No permit application shall be processed without payment of such fees.

(b) Any fee required under Section 3.6.4 shall be billed to the applicant. Payment of such fee shall be made within thirty days of the invoice date. No final decision regarding the permit application shall be made until after payment of such fee. Failure to make payment as provided herein shall constitute cause for denial of the permit application.

(c) All fees paid pursuant to the requirements of this Part shall be non-refundable.

(d) All fees and remittances shall be made payable to the City of Huntsville.

3.6.6 Fee Schedule.

Type of Activity	Fee
Permit Preparation (Per Permit)	$ 1,465
Non-Attainment Review Submittal Fee (Per Application)	$ 2,410
LAER Determination (Per Permit per Pollutant)	$ 940
Plantwide Applicability Limits (PAL) Review (Per Pollutant)	$ 11,830
PSD Review (Per Application)	$ 2,410
BACT Determination (Per Pollutant)	$ 940
Huntsville/State Regulations Review (Per Permit)	$ 575
NESHAPs Review (Per Permit)/Per NESHAP	$ 2,795
MACT/ 112(g) Determination (per Pollutant)	$ 940
Non-Criteria Air Pollutant Review (Per Pollutant)	$ 1,895
NSPS Review (Per Permit)/Per NSPS	$ 2,795
Modeling Review	
Modeling Protocol Review	$ 2,575
Modeling Review	$ 19,060
Class 1 Modeling Review	$ 2,575
Emission Inventory Preparation	$ 1,460 + $ 150/ point/pollutant
Meteorological Data	$ 1,085
Public Comment Period (Per Application)	$ 740
Adequacy Determination of Preconstruction Monitoring Network/Data	$ 7,435

3.6.7 All permit application fees paid by application for a Major Source Operating Permit shall be used to fund the Air Program.

3.6.8 In the event there is a conflict between Alabama State law or the regulations promulgated thereto and the fee structure provided in this Part, the fee structure established under State law shall take precedence. (adopted November 9, 2000)

3.7 Major Source Operating Permit Annual Emissions Fees.

3.7.1 Applicability. The provisions of this part shall apply to any person who operates a stationary source, except as provided in Section 3.7.3.

3.7.2 Definitions. The words or phrases used in this part shall have the meanings provided in the rules and regulations applicable to the particular application involved unless the word or phrase is defined in this Section. For the purposes of this part, the following words or phrases shall have the following meanings:

(a) "Actual emissions" means the actual rate of emissions in tons per year of any regulated air pollutant emitted by a stationary source. Actual emissions shall be calculated using the stationary source's actual operating hours, production rates, and in-place control equipment, types of materials processed, stored, or combusted during the calendar year which precedes the year the fees are due by two years.

(b) "Affected pollutant" means any of the following pollutants: nitrogen oxides, sulfur oxides measured as sulfur dioxide, volatile organic compounds, or particulate matter.

(c) "Consumer price index or CPI" means the average of the Consumer Price Index for all urban consumers published by the Department of Labor, as of the close of the 12-month period ending on August 31 of each year.

(d) "Regulated Air Pollutant" means the following:

(1) Nitrogen oxides or any volatile organic compounds;

(2) Any pollutant for which a national ambient air quality standard has been promulgated;

(3) Any pollutant that is subject to any standard promulgated under section 111 of the Federal Clean Air Act; or

(4) Any pollutant subject to a standard promulgated under section 112 or other requirements established under section 112 of the Federal Clean Air Act, including sections 112(g), and (j) of the Federal Clean Air Act, including the following:

(i) Any pollutant subject to requirements under section 112(j) of the Federal Clean Air Act. If the Administrator fails to promulgate a standard by the date established pursuant to section 112(e) of the Federal Clean Air Act, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to section 112(e) of the Federal Clean Air Act; and

(ii) Any pollutant for which the requirements of section 112(g)(2) of the Federal Clean Air Act have been met, but only with respect to the individual source subject to that section 112(g)(2) requirement.

3.7.3 Exemptions.

(a) Stationary sources which are not subject to the requirements of Part 3.9 of this Chapter and have not elected to apply for a Major Source Operating Permit are exempt from annual emissions fee payments.

(b) Stationary sources which are subject to Phase I of Title IV in the 1990 Clean Air Act Amendments are exempt from the payment of fees for the calendar years through 1999.

(c) Fugitive emissions shall be exempt from the fees paid in Schedules A and B of this part.

3.7.4 Fee Schedule. (amended March 24, 1994)

(a) Major sources which have actual emissions of 1000 tons or more per year of an affected pollutant in the

calendar years 1991, 1992, and 1993 shall pay permit fees according to Schedule A of this Part for pollutants which are limited by regulation or by a permit condition developed pursuant to these requirements.

(b) Major sources which have actual emissions of 100 tons or more per year but less than 1000 tons per year of an affected pollutant in the calendar years 1992 and 1993 shall pay permit fees according to Schedule B of this Section for pollutants which are limited by regulation or by a permit condition developed pursuant to these requirements.

(c) Beginning in the calendar year 1995, fees will be due on May 1st for every source subject to this Part at the rate of $25 per ton plus the difference in the CPI of the year the fees were assessed and the CPI of 1989 for each regulated pollutant, except carbon monoxide, as defined in 3.8.2(g) for the actual emissions during the calendar year 1994. Each subsequent year, fees will be due May 1st for the emissions of regulated air pollutants during the preceding calendar year.

(d) Emissions from a major source of any pollutant subject to fees in this part which are emitted at a rate greater than 4000 tons per year shall be defined as 4000 tons per year for the purposes of assessing fees for each said pollutant.

(e) Emissions of a regulated air pollutant shall not be counted more than once in determining fees.

(f) In the event the annual emissions fees which would be due from a source subject to this Part are less than $500 under the requirements of Paragraph 3.7.4(c) above, the fees which are actually due shall be $500, except those facilities which are covered only by a General Permit issued pursuant to Section 3.9.7 of this Part. For facilities which are subject only to such General Permitting requirements, and for which the annual emissions fees are less than $250 under the requirements of Paragraph 3.7.4(c) above, the fees which are actually due shall be $250.

(g) In the event there is a conflict between Alabama State law or the regulations promulgated thereto and the fee structure provided in this Part, the fee structure

established under State law shall take precedence. (adopted November 9, 2000)

3.7.5 Payment of Fees.

(a) Payment of major source operating permit annual emissions fees required under Section 3.7.4 shall be made on or before May 1 of each year beginning in 1992.

(b) Failure to submit payment as required in this part shall be cause for revocation of permit(s).

(c) Failure to make payment of fees within 30 days of the date the fees are due shall be cause for the Department to assess a late fee of 3% (of the original fee) per month or fraction thereof.

(d) All fees paid pursuant to the requirements of this part shall be non-refundable.

(e) All fees and remittances shall be made payable to the City of Huntsville.

(f) Within 60 days of payment of the fees, the Department shall advise the source that it agrees with the actual emission estimate used to calculate the fees, disagrees with the actual emission estimate used to assess the fees, or needs additional information. When the Department sends a letter agreeing with actual emission estimates, it may not reassess the fees for the year in question unless it is determined that the source intentionally provided erroneous information.

(g) All fees generated by major source operating permit annual emission fee payments shall be deposited in an account dedicated for the purpose of these fees and the major source operating permit application fees required under Part 3.6 of this Chapter and will be used only to directly and indirectly support the Air Program.

(h) If at the end of any fiscal year the amount of major source operating permit annual emissions fees and major source operating permit application fees carried over in the account dedicated for these revenues exceeds the amount of the Air Program budget for that fiscal year, the major source operating permit annual emissions fees shall be reduced the following year.

SCHEDULE A

Due Date	Fee Assessment
May 1, 1992	$7.70 per ton of actual emissions per affected pollutant emitted at a rate of 1000 tons per year or more during the calendar year 1991
May 1, 1993	$12.00 per ton of actual emissions per affected pollutant emitted at a rate 1000 tons per year or more during the calendar year 1992
May 1, 1994	$18.30 per ton of actual emissions per affected pollutant emitted at a rate of 1000 tons per year or more during the

SCHEDULE B

Due Date	Fee Assessment
May 1, 1993	$15.70 per ton of actual emissions per affected pollutant emitted at a rate of 100 tons or more per year but less than 1000 tons per year during the calendar year 1992
May 1, 1994	$22.40 per ton of actual emissions per affected pollutant emitted at a rate of 100 tons or more per year but less than 1000 tons per year during the calendar year

3.8 Synthetic Minor Operating Permit Requirements. (amended March 13, 1997)

3.8.1 Applicability. The provisions of this Part shall apply only to potential major sources, except those stationary sources which are applying for, will apply for, or have obtained Major Source Operating Permits.

(a) Any potential Major Source whose actual emissions do not exceed 50 percent of any applicable major source thresholds, for every consecutive 12 month period, shall be considered to hold a Synthetic Minor Operating Permit until the Department amends this Rule in the future in accordance with the adoption of a Rule by the Environmental Protection Agency that Environmental Protection Agency that codifies a position regarding the subject of this sentence in some form, provided that:

(1) The source maintains adequate records such as emission tests, production data or operational logs sufficient to determine actual emissions, and;

(2) Such records are maintained and made available for inspection by the Department for a period of five years in a format suitable for inspection by the Department, and are submitted to the Department within thirty (30) days of receipt of a specific request.

(b) Nothing in Paragraph (2) of this Rule shall exempt any source from complying with the new source permitting requirements of part 3.1.2.

3.8.2 General Provisions (amended September 8,2011)

(a) The Synthetic Minor Operating Permit shall include specific conditions that restrict the facility's potential to emit to levels below the applicability threshold of Part 3.9 and are federally enforceable.

(b) A potential major source that does not obtain a Synthetic Minor Operating Permit shall apply for a Major Source Operating Permit.

(c) Any Stationary Source applying for a Synthetic Minor Operating Permit shall submit applications for a Synthetic Minor Operating Permit at least ten (10) days prior to construction except as provided in Section 3.8.4. The owner or operator shall obtain a Synthetic Minor Operating Permit prior to beginning operation of a new or modified source and shall notify the Department at least ten (10) days prior to beginning such operation.

(d) Synthetic Minor Operating Permits shall expire on the date five years from the date of issuance except as

provided for in Paragraph (f) below. The permitted source must file an application for renewal of a Synthetic Minor Operating Permit at least six months prior to the expiration date.

(e) In the event a Synthetic Minor Operating Permit expires prior to reissuance, the terms and conditions of the permit shall remain fully enforceable.

(f) In the event the Director fails to act on an application for renewal of a Synthetic Minor Operating Permit submitted in accordance with the requirements of this Part, the Synthetic Minor Operating Permit shall not expire provided that the source has filed an application within the time frame specified in Paragraph 3.8.2(d) of this Part.

(g) The holder of a Synthetic Minor Operating Permit shall comply with all conditions contained in such permit, as well as all applicable provisions of these Rules and Regulations. Such conditions shall be permanent, quantifiable and otherwise enforceable as a practical matter. Synthetic Minor Operating Permits which do not conform to the provisions in this Chapter and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA.

3.8.3 Existing Potential Major Sources.

(a) Any facility that would request a Synthetic Minor Operating Permit shall apply to the Director within one year after approval by EPA of the Major Source Operating Permit regulations in Part 3.9.

(b) Any facility possessing a Major Source Operating Permit or whose potential emissions require it to obtain a Major Source Operating Permit may, at any time, accept federally enforceable permit restrictions which would allow it to obtain a Synthetic Minor Operating Permit.

3.8.4 New Potential Major Sources. Any new potential major source which commences construction after November 15, 1995, may apply to the Director for a Synthetic Minor Operating Permit. This application shall be accurately completed and submitted to the Director prior to such construction. Any new potential major source located at a greenfield site as defined in Part

3.6.2(a) shall not initiate construction until the Synthetic Minor Operating Permit has been issued. (amended March 13, 1997)

3.8.5 Modifications to Synthetic Minor Sources.

(a) Any Stationary Source subject to the regulations in this Part that is modified so that it becomes a major source as defined in Part 3.1 of this Chapter shall apply for a Major Source Operating Permit within twelve (12) months of beginning operation.

(b) Any modification which would require a change to existing permit conditions that restrict the facility's potential to emit or require new conditions that restrict the facility's potential to emit, as required in Section 3.8.2 of this Part, must undergo the public participation procedures prescribed in Section 3.1.9 of this Chapter.

3.9 Major Source Operating Permits.

3.9.1 Applicability. (amended March 24, 1994)

(a) Except as exempted under Paragraph 3.9.1(b) below and elsewhere herein, the following sources are subject to the permitting requirements under this Part.

(1) Any major source as defined in Part 3.1 of this Chapter;

(2) Any source subject to a standard, limitation, or other requirement under Chapter 13 or Chapter 14 of these rules and regulations;

(3) Any affected source as defined in Part 3.1 of this Chapter;

(b) The following sources are exempt from the requirements of this Part:

(1) Non-major sources subject to Chapter 13 or Chapter 14 of these Rules and Regulations prior to July 21, 1992, unless the Administrator determines through rulemaking that specific classes of such sources are subject to the requirements of 40 CFR Part 70;

(2) Non-major sources subject to Chapter 13 or

Chapter 14 of these Rules and Regulations which have an applicability date after July 21, 1992 that have been exempted by the Administrator from the requirements of 40 CFR Part 70. Non-major sources which are temporarily exempted from the requirements of 40 CFR Part 70 by the Administrator are also temporarily exempted from the requirements of this Part to the extent allowed by the Administrator;

(3) Solid waste incineration units combusting municipal waste subject to standards under section 129(e) of the Federal Clean Air Act which satisfy all of the conditions specified in Section 3.3.10 of this Chapter.

(4) Wood heaters subject to Chapter 13 of these Rules and Regulations and asbestos demolitions and renovation sources subject to Chapter 14 of these Rules and Regulations.

3.9.2 Permit Application Requirements

(a) Upon becoming subject to this Part, a source must submit an application, as described in this Part within 12 months. The Director may require some sources to submit their applications earlier than 12 months after the requirements of this Part become applicable if it is determined that earlier submittal is necessary to satisfy the requirements in Section 3.9.10 of this Part. The Director shall notify any emission source that must submit an early applications at least one year in advance of the date the submittal is due.

(b) Sources subject to Part 3.10 or subject to preconstruction review under Title 1 of the Federal Clean Air Act must apply for a permit under this Part within 12 months after commencing operation, except, when an existing permit issued under this Part prohibits construction or a change in operation, a permit revision must be obtained before commencing operation. (amended March 26, 1998).

(c) Renewal. An application for renewal shall be submitted at least six (6) months before the date of permit expiration, unless a longer period (not to exceed 18 months) is specified in the permit.

(d) Applications for initial phase II acid rain

permits shall be submitted by January 1, 1996 for sulfur dioxide (SO2) and by January 1, 1998 for nitrogen oxides (NOx).

(e) Complete application. Unless the Director notifies the permit applicant in writing that the application is not complete, the application is considered complete 60 days after receipt by the Department. If, while processing the application, the Director determines that more information is needed to evaluate the application, the applicant must submit such information by a reasonable deadline(s) specified in writing by the Director.

(f) A source may operate without a permit under this Part between the date the application has been deemed complete and the date the final permit is issued, provided that the applicant submits any requested additional material by the deadline(s) specified by the Director.

(g) Duty to supplement or correct an application. A source must submit additional information to the Director to supplement or correct an application promptly after becoming aware of the need for additional or corrected information. Also, a source must supply to the Director additional information concerning any new requirements which have become applicable after a complete application has been filed but before a draft Major Source Operating Permit is released.

3.9.3 Standard application form and required information. The following information shall be included in an application by a source for a permit under this Part:

(a) Identifying information, including company name and address (and plant name and address if different from the company name), owner's name and agent, and telephone number and names of plant site manager/contact;

(b) A description of the source's processes and products (including the appropriate four-digit Standard Industrial Classification Code), including any processes and products associated with each alternate operating scenario that is identified by the source and a list of insignificant sources and the basis for the

determination(s);

(c) The following emissions-related information:

(1) A list of all emissions of pollutants for which the source is considered to be major and a list of all emissions of regulated air pollutants. The permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except where such units are exempted under this Part. The source shall submit additional information related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source, and other information necessary to determine the amount of any annual emissions fees owed under the fee schedule approved pursuant to Part 3.7 of this Chapter;

(2) Identification and description of all points of emissions described in subparagraph 3.9.3(c)(1) of this paragraph in sufficient detail to establish the basis for fees and the applicability of the requirements of this Part;

(3) Emissions rates of all pollutants in tons per year (tpy) and in such terms as are necessary to establish compliance consistent with the applicable standard reference test method, or alternative method approved by the Director;

(4) The following information to the extent it is needed to determine or regulate emissions: fuels to be used, rate of fuel use, raw materials that will be used in the production process, production rates, and operating schedules;

(5) Identification and description of all air pollution control equipment and compliance monitoring devices or activities that will be used by the source;

(6) Limitations that will be placed on the source's operation so as to affect emissions or any work practice standards that will be implemented, where applicable, for all regulated pollutants.

(7) Other information that may be required to address other applicable requirements (including, but not limited to, information relating to stack height

limitations developed pursuant to section 123 of the Federal Clean Air Act).

(8) Calculations on which the information in items 1. through 7. above are based.

(9) Trivial and Insignificant Activities (amended (November 9, 2000)

(i) Insignificant activities, shall not necessarily be listed in permits issued pursuant to the provisions of this Part, provided they are listed in the permit application, and they are not expected to violate any generally applicable requirements listed in the permit.

(ii) Trivial activities shall not be subject to the provisions of this Part.

(d) The following air pollution control requirements:

(1) Citations and descriptions of all applicable statutory and administrative code requirements, and

(2) A description of or reference to any applicable test methods for determining compliance with each applicable statutory or regulatory requirement.

(e) Other information that may be required by the Director to enforce and implement other requirements of this Part;

(f) An explanation of all proposed exemptions from otherwise applicable requirements;

(g) Additional information determined by the Director to be necessary to define alternative operating scenarios that are identified by the source pursuant to Paragraph 3.9.5(o) of these Rules and Regulations, or to define permit terms or conditions implementing the provisions of paragraph 3.9.5(u) or Section 3.9.12. (Amended November 9, 2000)

(h) A compliance plan for the source that contains the following:

(1) A description of the compliance status of the

source with respect to all applicable requirements and a compliance schedule.

(2) A statement that the source will continue to comply with all regulatory requirements that it is now in compliance with;

(3) A statement that the source will meet such requirements that will become effective during the term of the permit in a timely manner, unless a more detailed schedule is expressly required by the applicable requirement;

(4) A narrative description of how the source will achieve compliance with requirements for which the source is not in compliance at the time of permit issuance with a compliance schedule for the source. Any schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. The compliance schedule shall be at least as stringent as any compliance schedule that is contained in any judicial consent decree or administrative order to which the source is subject. Any schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

(5) A schedule for submission of certified progress reports no less frequently than every 6 months for sources required to have a schedule of compliance to remedy a violation.

(6) The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under title IV of the Federal Clean Air Act with regard to the schedule and method(s) the source will use to achieve compliance with the acid rain emissions limitations.

(i) A compliance certification, including the following:

(1) A certification of compliance with all

applicable requirements by a responsible official consistent with Section 3.9.4 of this Part and section 114(a)(3) of the Federal Clean Air Act, as it relates to the enhanced monitoring requirements;

(2) A statement of methods used for determining compliance, including a description of monitoring, record keeping, and reporting requirements and test methods;

(3) A schedule for submission of compliance certifications during the permit term, which shall be submitted annually, or more frequently if required by the underlying applicable requirement or by the Director; and

(4) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Federal Clean Air Act.

(j) The use of nationally-standardized forms for acid rain portions of permit applications and compliance plans as required by regulations promulgated under title IV of the Federal Clean Air Act.

3.9.4 Certification of truth, accuracy and completeness. (amended November 9, 2000).

Any application form, report, or compliance certification submitted pursuant to this Part shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this Part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.9.5 Permit Content. All permits required under this Part shall include the following standard permit requirements: (amended March 24, 1994)

(a) Applicable emissions limitations and standards and operational requirements and limitations necessary to assure compliance with all applicable requirements at the time of permit issuance. In addition, the permit shall include:

(1) A statement or reference to the origin and

authority for each term or condition in the permit and any difference in form as compared to the applicable requirement under this Part upon which the term or condition is based; and

(2) A statement to the effect that where an applicable requirement of this Part is more stringent than an applicable requirement of regulations promulgated under Title IV of the Federal Clean Air Act, both provisions shall be incorporated into the permit and shall be enforceable by the Department.

(b) Duration of Operating Permits

(1) The Director shall issue permits for a fixed term of five years, except as provided in Subparagraph (2) below.

(2) Solid waste incineration units combusting municipal waste subject to standards under section 129(e) of the Act shall have a fixed term not to exceed 12 years. However, said permits shall be reviewed every five years.

(3) Permits which are issued for new emission units before the units become operational shall be effective for five years after operation of the unit commences.

(c) Monitoring requirements. Major Source Operating Permits shall contain the following requirements with respect to monitoring:

(1) All emissions monitoring and analysis procedures or test methods required under the applicable requirements, including any procedures and methods promulgated pursuant to sections 114(a)(3) or 504(b) of the Federal Clean Air Act;

(2) Where the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (e.g. record keeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data for the relevant time period that is representative of the source's compliance with the permit, as reported pursuant to Paragraph 3.9.5(e) of this Part. Such monitoring requirements shall assure use

of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. In certain instances record keeping provisions may be sufficient to meet the requirements of this subparagraph; and

(3) As necessary, information concerning the use, maintenance, and, where appropriate, installation of monitoring equipment or methods.

(d) Record keeping requirements. With respect to record keeping, the permit shall incorporate all requirements of this Part and require, where appropriate, the following:

(1) Records of required monitoring information of the source that include the following:

(i) The date, place (as defined in the permit), and time of all sampling or measurements;

(ii) The date(s) analyses were performed;

(iii) The company or entity that performed the analyses;

(iv) The analytical techniques or methods used;

(v) The results of all analyses; and

(vi) The operating conditions that existed at the time of sampling or measurement;

(2) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.

(e) Reporting requirements. Permits shall incorporate all reporting requirements of this Part and require the following:

(1) The source to submit reports to the Department of any required monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Section 3.9.4 of this Part.

(2) The source to report deviations from permit requirements within two (2) working days of such deviations, including those attributable to upset conditions as defined in the permit, the probable cause of said deviations, and any corrective actions or preventive measures that were taken.

(f) Permits shall contain statements to the effect that emissions exceeding any allowances that the source lawfully holds under title IV of the Federal Clean Air Act or the regulations promulgated thereunder are prohibited. Furthermore, the following shall be applicable:

(1) No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement;

(2) No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement;

(3) Any such allowance shall be accounted for according to the procedures established in regulations promulgated pursuant to title IV of the Federal Clean Air Act.

(g) Permits shall include a severability clause for the purpose of ensuring the continuation of a permit in the event a portion(s) of the permit is successfully challenged in a legal forum.

(h) Permits shall contain a provision that states that the source (permittee) must comply with all conditions of these Rules and Regulations: Noncompliance with a permit will constitute a violation of the Federal Clean Air Act and these Rules and Regulations and may

result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the source.

(i) Permits shall contain a provision that states the source (permittee) shall not use as a defense in an enforcement action that maintaining compliance with conditions of the permit would have required halting or reducing the permitted activity.

(j) Permits shall contain a provision that states that the permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the source (permittee) for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.

(k) Permits shall contain a provision that states that no property rights of any sort, or any exclusive privilege are conveyed through the issuance of the permit.

(l) Permits shall contain a provision that states that the source (permittee) shall furnish to the Department, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by the permit.

(m) Permits shall contain a provision that states that the source (permittee) must have paid all fees required by Parts 3.6 and 3.7 of these Rules and Regulations or the permit is not effective.

(n) Permits shall state that no permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. However, appropriate requirements for providing notification of such changes to the Department shall be specified in the permit.

(o) The permit shall contain a provision that quantifies the terms and conditions for reasonably anticipated alternative operating scenarios that were identified by the source in its application and are acceptable to the Director. The alternative operating scenarios terms and conditions shall:

(1) Require the source, contemporaneously with making a change from one operating scenario to another, to record in a log at the permitted facility a record of the scenario under which it is operating;

(2) Ensure that the terms and conditions of each such alternative scenario meet all applicable requirements and the requirements of this Part.

(p) The permit shall contain compliance certification, testing, monitoring, reporting, and record keeping requirements sufficient to assure compliance with the terms and conditions of the permit. Any document (including reports submitted by the source (permittee)) that is required in a Major Source Operating permit shall contain a certification by a responsible official that meets the requirements of Section 3.9.4 of this Part.

(q) The permit shall contain inspection and entry requirements that mandate that the permittee shall allow employees of the Department or an authorized representative, upon presentation of credentials and other documents that may be required by law, to perform the following:

(1) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of a permit;

(2) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of a permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required pursuant to a permit; and

(4) Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

(r) The permit shall contain a schedule of compliance consistent with Paragraph 3.9.3(h) of these Rules and Regulations.

(s) The permit shall contain the requirement that progress reports consistent with an applicable schedule of compliance and Paragraph 3.9.3(h) of this Part are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the Director. Such progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and/or dates when such activities, milestones or compliance were achieved; and

(2) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

(t) Operating Permits shall contain requirements for certification of compliance with terms and conditions contained in the permit, including emission limitations, standards, or work practices. Permits shall include each of the following:

(1) The frequency of submissions of compliance certifications, which shall be at least annually unless more frequent periods are specified according to the regulations governing the source or required by the Director.

(2) A means for monitoring the compliance of the source with its emissions limitations, standards, and work practices in accordance with Paragraph 3.9.5(c) of this Section;

(3) A requirement that the compliance certification include the following:

(i) The identification of each term or

condition of the permit that is the basis of the certification;

(ii) The compliance status;

(iii) Whether compliance has been continuous or intermittent;

(iv) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Paragraph 3.9.5(c) of this Part; and

(v) Such other facts as the Director may require to determine the compliance status of the source;

(4) A requirement that all compliance certifications be submitted to the Administrator as well as to the Department; and

(5) Such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Federal Clean Air Act.

(u) The permit shall contain terms and conditions, if specifically requested by the applicant, which authorize the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit independent of otherwise applicable requirements, to the extent that the applicable requirements provide for trading such increases and decreases without a case-by-case approval of each emissions trade. (adopted November 9, 2000)

(1) Such terms and conditions:

(i) shall include all terms required under Section 3.9.5 of this part to determine compliance;

(ii) may extend the permit shield described in Section 3.9.9 of this part to all terms and conditions that allow such increases and decreases; and

(iii) must meet all applicable requirements of this Chapter.

(2) All requests for emissions trading under this paragraph shall include proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. Such requests shall also include sufficient proposed monitoring, recordkeeping, and reporting as necessary to ensure compliance with all applicable requirements. The applicant shall provide written notice of requests for emissions trading under this paragraph to the Department and EPA at least 7 days prior to the anticipated change. This notice shall state when the change would occur and shall describe the changes in emissions that would result and how these increases and decreases in emissions would comply with the terms and conditions of the permit.

(v) Operating Permits shall contain such other provisions as the Director may require.

3.9.6 Federally enforceable requirements. (amended March 24, 1994)

(a) All terms in a permit that are required to be part of a permit pursuant to the Federal Clean Air Act are federally enforceable by EPA, and are enforceable by the Alabama Department of Environmental Management, the Department and citizens in general. However, those provisions of a permit that are identified within the Major Source Operating Permit as not required under the Federal Clean Air Act are considered to be state or local permit provisions and consequently, are not federally enforceable by EPA or enforceable by citizens in general.

(b) Those provisions of a permit that are state or local permit provisions shall be separated from the federally enforceable terms. Such state or local provisions shall be clearly identified in the permit.

3.9.7 General Permits. (amended March 24, 1994)

(a) The Director may issue a general permit to any source category if he concludes that the category is appropriate for permitting on a generic basis after notice and opportunity for public participation provided under Section 3.9.13 of this Chapter. No general permit may be issued for affected sources under the acid rain program unless otherwise provided for in regulations promulgated under Title IV of the Federal Clean Air Act.

(b) A general permit may be issued for a source category based upon an application from a source within the source category or upon the Director's own initiative. The same procedures for issuance of a general permit are applicable as for any other permit issued under this Part.

(c) A general permit may be issued for the following purposes:

(1) to establish terms and conditions to implement applicable requirements for a source category;

(2) to establish terms and conditions to implement applicable requirements for specified categories of changes to permitted sources;

(3) to establish terms and conditions for new requirements that apply to sources with existing permits; and

(4) to establish federally-enforceable caps on emissions from sources in a specified category.

(d) The Director may issue a general permit if he finds that:

(1) there are several permittees or permit applicants who have the same or substantially similar operations, emissions, activities, or facilities;

(2) the permittees or permit applicants emit the same types of regulated air pollutants;

(3) the operations, emissions, activities, or facilities are subject to the same or similar standards, limitations, and operating requirements; and

(4) the operations, emissions, activities, or facilities are subject to the same or similar monitoring requirements.

(e) A general permit issued under this rule shall identify criteria by which sources may qualify for the general permit. After a general permit has been issued, any source may submit a request to be covered under the permit.

(1) A request for coverage under a general permit shall identify the source and provide information sufficient to demonstrate that it falls within the source category covered by the general permit, together with any additional information that may be specified in the general permit. In the event the information provided under this subparagraph incorrectly indicates that the applicant qualifies for coverage under the general permit, such coverage granted by the Department shall be invalid and enforcement action may be taken for failure to obtain a Major Source Operating Permit.

(2) A final action approving a request for coverage under a general permit shall not require repeating the public participation procedures prescribed in Section 3.9.13 of this Part. However, at his discretion the Director may include such public participation procedures prior to approval of a request for coverage under a general permit.

(f) A copy of the general permit, together with a list of sources approved for coverage under it, shall be kept on file for public review at the Department's office in Huntsville.

(g) If some, but not all, of a source's operations, activities, and emissions are eligible for coverage under one or more general permits, the source may apply for and receive coverage under the general permits for the operations, activities, and emissions that are so eligible. If the source is required under Section 3.9.2 of this Chapter to apply for a permit addressing the remainder of its operations, activities, and emissions, it may apply for and receive a permit that addresses specifically only those items not covered by general permits. In such a case, the source's permit shall identify all operations, activities, and emissions that are subject to general permits and incorporate those general permits by reference.

3.9.8 Temporary sources.

(a) One permit for sources which move at least once during term of permit: A single permit may be issued authorizing emissions from similar operations by the same source owner or operator at multiple temporary locations,

provided that each such temporary location has been identified in the permit application. The operation must be temporary and involve at least one change of location during the term of the permit. No affected source shall be permitted as a temporary source. Permits for temporary sources shall include the following:

(1) Conditions that will assure compliance with all applicable requirements at all authorized locations;

(2) Requirements that the owner or operator notify the permitting authority at least ten days in advance of each change in location; and

(3) Conditions that assure compliance with all other provisions of this Part.

(b) The Department shall be notified in writing at least 10 days in advance of a change in location of the source.

3.9.9 Permit Shield.

(a) Except as provided in this Part, the Director may expressly include in a Major Source Operating Permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

(1) Such applicable requirements are included and are specifically identified in the permit; or

(2) The Director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(b) A Major Source Operating Permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

(c) Nothing in this Section or in any Major Source Operating Permit shall alter or affect the following:

(1) The provisions of section 303 of the Federal Clean Air Act (emergency orders), including the authority

of the Administrator under that section; or the provisions of Part 2.9 of these Rules and Regulations, including the authority of the Director under that Part.

(2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(3) The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Clean Air Act; or

(4) The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Clean Air Act.

3.9.10 Permit Issuance. (amended March 13, 1997)

(a) Initial Permit Issuance

(1) All major sources must be issued operating permits within 3 years of the date that EPA approves the Department's Operating Permits program.

(2) At least one-third of the permits for sources subject to this Part must be issued each of the three years following EPA's approval of the Department's Major Source Operating Permits program.

(3) Any application for a new source must be acted on within 18 months of receiving a complete application.

(b) Renewals of Operating Permits

(1) Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, and affected State and EPA review, that apply to initial permit issuance under this Part.

(2) A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least six months, but not more than 18 months, before the date of expiration or the Director has taken final action approving the source's application for renewal by the

expiration date.

(3) If a timely and complete application for a permit renewal is submitted, but the Director fails to take final action to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.

3.9.11 Permit Modifications or Amendments. (amended September 13, 2001)

(a) Administrative modifications or amendments

(1) Some modifications to permits shall be considered, by their nature, to be administrative changes. An administrative permit amendment is a permit revision that:

(i) Corrects typographical errors;

(ii) Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;

(iii) Requires more frequent monitoring or reporting by the permittee;

(iv) Incorporates a general permit into a Major Source Operating Permit.

(v) Allows for a change in ownership or operational control of a source where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee for purposes of regulatory responsibility has been submitted to the Department;

(vi) Incorporates into a permit issued under this Part the requirements from preconstruction review permits authorized under these Rules and Regulations, provided that the process used meets procedural requirements substantially equivalent to the requirements of Section 3.9.10 and Section 3.9.13 of this Part that

would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in Sections 3.9.5 through 3.9.9 of this Part; or

(vii) Incorporates any other type of change which the Director has determined, and the Administrator has approved as part of an approved operating permit program to be similar to those in Divisions (i)- (v) above. (Amended November 9, 2000)

(2) Administrative permit amendments for purposes of the acid rain portion of the permit shall be governed by regulations promulgated under title IV of the Federal Clean Air Act.

(3) An administrative permit amendment may be made by the Director consistent with the following:

(i) The Director shall take no more than 60 days from receipt of a request for an administrative permit amendment to take final action on such request, and may incorporate such changes without providing notice to the public or affected States provided that it designates any such permit revisions as having been made pursuant to this paragraph.

(ii) The Department shall submit a copy of the revised permit to the Administrator.

(iii) The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

(b) Flexible Permit Changes (i.e., Section 502 (B) 10 changes): Changes which are not considered to be modifications under title I of the Federal Clean Air Act, that contravene an existing permit condition and do not exceed emissions allowable under the permit can be done without amending the permit if:

(1) Written notification is provided to the Department that describes the proposed change, the date of the change, any change in emissions, and any term or condition of the permit which is no longer valid due to the change; and

(2) Notice is given to the Department and EPA at least 7 days before the change is made.

(3) Section 502(B)(10) changes for purposes of the acid rain portion of the permit shall be governed by regulations promulgated under title IV of the Federal Clean Air Act.

(c) Minor Permit Modification Procedures

(1) Criteria

(i) Minor permit modification procedures may be used only for those permit modifications that:

A. Do not violate any applicable requirement;

B. Do not involve significant changes to existing monitoring, reporting, or record keeping requirements in the permit;

C. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

D. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

(I). A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and

(II). An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act;

E. Are not modifications under any provision of Title I of the Federal Clean Air Act; and

F. Are not required by Section 3.9.10 of this Part to be processed as a significant modification.

(ii) Notwithstanding Division 3.9.11(c)(1)(i) of this Section, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by EPA.

(2) Application. An application requesting the use of minor permit modification procedures shall meet the requirements of Section 3.9.3 of this Chapter, but only as these requirements relate to the proposed change, and shall include the following:

(i) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

(ii) The source's suggested draft permit;

(iii) Certification by a responsible official, consistent with Section 3.9.4 of this Part, that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

(iv) Completed forms for the Department to use to notify the Administrator and affected States as required under Section 3.9.12 of this Part.

(3) EPA and affected State notification. Within 5 working days of receipt of a complete permit modification application, the Director shall notify the Administrator and affected States of the requested permit modification. The Department promptly shall send any notice of refusal to accept any recommendations made by the Administrator or the affected States to the Administrator.

(4) Timetable for issuance. The Department may not issue a final permit modification until after EPA's 45-day review period or until EPA has notified the

Director that EPA will not object to issuance of the permit modification, whichever is first. Within 90 days of the Department's receipt of an application under minor permit modification procedures or 15 days after the end of the Administrator's 45-day review period under Section 3.9.12 of this Part, whichever is later, the Director shall:

(i) Issue the permit modification as proposed;

(ii) Deny the permit modification application;

(iii) Determine that the requested modification does not meet the minor permit modification criteria and should be reviewed under the significant modification procedures; or

(iv) Revise the draft permit modification and transmit to the Administrator the new proposed permit modification as required by Section 3.9.12 of this Part.

(5) Source's ability to make change.

Ten days after the application has been submitted to the Department, the source may make the change for which they applied unless the Director notifies the source earlier that the change qualifies as a minor modification. After the source makes the change allowed by the preceding sentence, and until the Director takes any of the actions specified in subparagraphs 3.9.11(c)(4)(i)-(iv) of this Section, the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

(ii) If the Director notifies the source that the modification does not qualify as a minor modification within 10 days after receiving the application, then the source shall apply for the change as a significant modification.

(6) The permit shield under Section 3.9.9 of this Part shall not extend to minor permit modifications.

(d) Significant Modifications. Modifications that are significant modifications under the requirements of Parts 3.4 or 3.5 of this Chapter or are modifications under the NSPS or NESHAPS regulations must be incorporated in the Major Source Operating Permit using the requirements for sources initially applying for a Major Source Operating Permit, including those for applications, public participation, review by affected States, and review by EPA, as described in Sections 3.9.3 and 3.9.13 of this Part.

(e) Reopening for cause.

(1) Each issued permit shall include provisions specifying the conditions under which the permit will be reopened prior to the expiration of the permit. A permit shall be reopened and revised under any of the following circumstances:

(i) Additional applicable requirements under the Federal Clean Air Act become applicable to a major source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire.

(ii) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

(iii) The Department or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

(iv) The Administrator or the Director determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(2) Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(3) Reopenings under subparagraph 3.9.11(e)(1) of this Section shall not be initiated before a written notice of such intent is provided to the source by the Director at least 30 days in advance of the date that the permit is to be reopened, except that the Director may provide a shorter time period in the case of an emergency.

3.9.12 Off-Permit Changes (amended March 24, 1994)

(a) Any change at a source holding a Major Source Operating Permit which is not addressed or prohibited in the federally enforceable terms and conditions of the permit may be designated by the owner or operator as an off-permit change, and may be made without revision to the federally enforceable terms and conditions of the operating permit, provided that the change:

(1) shall meet all applicable requirements;

(2) does not violate any federally enforceable permit term or condition;

(3) is not subject to any requirement or standard under title IV of the Federal Clean Air Act; and

(4) is not a modification under title I.

(b) Designation of a change as state-only affects only the federal requirements for processing of the change under the federal operating permit program. The owner or operator must comply with all applicable State of Alabama and City of Huntsville permitting and preconstruction review requirements. Any change designated as state and/or local-only will require a permit revision under state and City permitting requirements and shall be processed in accordance with the administrative permit amendment provisions in paragraph 3.9.11(a) or the minor permit modification provisions in paragraph 3.9.11(c) of this Part, except that the provisions of subparagraph 3.9.11(c)(4) shall

not apply.

(c) The owner or operator of any permitted source who plans to make a change meeting the criteria set forth in this section may submit a request that the Director process the change application as an off-permit change, in accordance with paragraph (b) of this section.

(d) Any application pertaining to a change designated by the applicant as an off-permit change shall be submitted by the applicant to EPA in fulfillment of the obligation to provide written notice, provided, that no change meeting the criteria for an insignificant activity or trivial activity is subject to the procedures set forth in this section.

3.9.13 Permit Review by EPA, Affected States and the Public. (amended September 13, 2001)

(a) Transmission of information to EPA

(1) The Director shall submit each application, each proposed permit and each final permit to EPA. The Director may require the applicant to submit a copy of its application directly to EPA. The Director shall send a copy of the draft permit to the applicant at the same time that EPA is sent a copy.

(2) Upon agreement with EPA, the Director may submit a summary of the application instead of the full application.

(3) The Department shall keep 5 years of records of the information sent to EPA that is required in subparagraph 3.9.13(a)(1) above.

(b) Review by Affected States.

(1) The Director shall give notice to each Affected State of each draft permit on or before public notice, unless public notice is not required.

(2) The Director shall respond in writing to each Affected State and to the Administrator his reasons for refusing to accept an Affected State's recommendations or for refusing to accept the Administrator's recommendations regarding a Major Source Operating

Permit.

(c) EPA objection.

(1) If EPA objects in writing within 45 days of receipt of a proposed Major Source Operating permit, or prior to issuance of a final permit, the Director shall not issue the permit, except the Director may issue a permit that is valid pursuant to the Alabama Air Pollution Control Act only. However, the Director shall advise the source that issuance of such permit shall not provide any protection from federal requirements.

(2) EPA's objection must include the reasons for the objection and a description of the terms that the permit must include to remedy the objections. EPA shall supply the applicant with a copy of the objection.

(3) Failure of the Director to do any of the following are also grounds for objection:

(i) Comply with Paragraphs 3.9.13(a) or 3.9.13(b) of this Section;

(ii) Submit any information requested by EPA in writing necessary to review the permit; or

(iii) Process the permit under the significant permit modification procedures (unless the modification is minor).

(d) Public participation. Except for modifications qualifying for administrative or minor permit modification procedures, all permit proceedings, including initial permit issuance, significant modifications, and renewals, shall use the following procedures for public notice:

(1) Notice shall be given by publication in a newspaper of general circulation in the area where the source is located or in a publication designed to give general public notice and also to persons on a mailing list developed by the Department for persons desiring notice of permit action, including persons who have requested in writing to be on such a list;

(2) The notice shall identify the affected

facility; the name and address of the permittee; the address of the Department; the activity or activities involved in the permit action; the emissions change involved in any permit modification; the name, address, and telephone number of a person from whom interested persons may obtain additional information, including copies of the permit draft, the application, all relevant supporting materials, including any compliance plan, monitoring and compliance certification report, except for information entitled to be kept confidential, and all other materials available to the Department that are relevant to the permit decision; a brief description of the comment procedures required by the Department; and the time and place of any hearing that may be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled);

(3) The Director shall provide at least 30 days for public comment and shall give notice of any public hearing at least 30 days in advance of the hearing; and

(4) The Department shall keep a record of the comments made during the public participation process.

3.10 Requirements for Control Technology [Determinations for Major Sources in Accordance with Clean Air Act Section 112(g)]. (adopted March 26, 1998).

3.10.1 Applicability.

(a) The requirements of Sections (1) through (4) of this Part carry out Section 112(g)(2)(B) of the 1990 Clean Air Act Amendments (hereinafter, referred to as 'the Act' in this Part).

(b) Overall requirements. The requirements of Sections 3.10.1 through 3.10.4 of this Part apply to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants after the effective date of this Part unless the major source in question has been specifically regulated or exempted from regulation under a standard issued pursuant to Section 112(d), Section 112(h), or Section 112(j) and incorporated in another Subpart of Part 63 of the 40 Code of Federal Regulations or Chapter 14 of these Rules and Regulations, or the owner or operator of such major source has received all necessary air quality permits for such

construction or reconstruction project before the effective date of this Part.

(c) Exclusion for electric utility steam generating units. The requirements of this Part do not apply to electric utility steam generating units unless and until such time as these units are added to the source category list pursuant to Section 112(c)(5) of the Act.

(d) Exclusion for stationary sources in deleted source categories. The requirements of this Part do not apply to stationary sources that are within a source category that has been deleted from the source category list pursuant to Section 112(c)(9) of the Act.

(e) Exclusion for research and development activities. The requirements of this Part do not apply to research and development activities, as defined in Section 3.10.2 below.

(f) Prohibition. After the effective date of this Part, no person may begin actual construction or reconstruction of a major source of HAP unless:

(1) The major source in question has been specifically regulated or exempted from regulation under a standard issued pursuant to Section 112(d), Section 112(h) or Section 112(j) in Part 63 [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B], and the owner and operator has fully complied with all procedures and requirements for preconstruction review established by that standard, including any applicable requirements set forth in Subpart A of Part 63; or

(2) The Department has made a final and effective case-by-case determination pursuant to the provisions of this Part such that emissions from the constructed or reconstructed major source will be controlled to a level no less stringent than the maximum achievable control technology emission limitation for new sources.

3.10.2 Definitions. Terms used in this Part that are not defined below have the meaning given to them in the Act and in 40 CFR Subpart A.

(a) "Affected Source" means the stationary source or group of stationary sources which, when fabricated (on

site), erected, or installed meets the definition of "construct a major source" or the definition of "reconstruct a major source" contained in this Section.

(b) "Affected States" are all States:

(1) Whose air quality may be affected and that are contiguous to the State in which a MACT determination is made in accordance with this Part; or

(2) Whose air quality may be affected and that are within 50 miles of the major source for which a MACT determination is made in accordance with this Part.

(c) "Available Information" means, for purposes of identifying control technology options for the affected source, information contained in the following information sources as of the date of approval of the MACT determination by the Department:

(1) A relevant proposed regulation, including all supporting information;

(2) Background information documents for a draft or proposed regulation;

(3) Data and information available from the Control Technology Center developed pursuant to Section 113 of the Act;

(4) Data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;

(5) Any additional information that can be expeditiously provided by the Director; and

(6) For the purpose of determinations by the Department, any additional information provided by the applicant or others, and any additional information considered available by the Department.

(d) "Construct a Major Source" means:

(1) To fabricate, erect, or install at any greenfield site a stationary source or group of stationary sources which is located within a contiguous

area and under common control and which emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, or

(2) To fabricate, erect, or install at any developed site a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, unless the process or production unit satisfies criteria (i) through (vi) below:

(i) All HAP emitted by the process or production unit that would otherwise be controlled under the requirements of this Part will be controlled by emission control equipment which was previously installed at the same site as the process or production unit;

(ii) A. The Department has determined within a period of 5 years prior to the fabrication, erection, or installation of the process or production unit that the existing emission control equipment represented best available control technology (BACT), or lowest achievable emission rate (LAER) under Chapter 3; or

B. The Department determines that the control of HAP emissions provided by the existing equipment will be equivalent to that level of control currently achieved by other well-controlled similar sources (i.e., equivalent to the level of control that would be provided by a current BACT or LAER determination);

(iii) The Department determines that the percent control efficiency for emissions of HAP from all sources to be controlled by the existing control equipment will be equivalent to the percent control efficiency provided by the control equipment prior to the inclusion of the new process or production unit;

(iv) The Department has provided notice and an opportunity for public comment concerning its determination that criteria in Subdivisions (2)(i), (2)(ii), and (2)(iii) of this definition apply and concerning the continued adequacy of any prior LAER or BACT determination;

(v) If any commenter has asserted that a

prior LAER or BACT determination is no longer adequate, the Department has determined that the level of control required by that prior determination remains adequate; and

(vi) Any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by the Department are predicated will be construed by the Department as applicable requirements under Section 504(a) and either have been incorporated into any existing Major Source Operating Permit for the affected facility or will be incorporated into such permit upon issuance.

(e) "Control Technology" means measures, processes, methods, systems, or techniques to limit the emission of hazardous air pollutants through process changes, substitution of materials or other modifications including, but not limited to, measures that:

(1) Reduce the quantity of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications;

(2) Enclose systems or processes to eliminate emissions;

(3) Collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point;

(4) Are design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in 42 U.S.C. 7412(h); or

(5) Are a combination of Subparagraphs (e)(1) - (e)(4) of this definition.

(f) "Department" means the Department as defined in this Chapter.

(g) "Effective Date of Section 112(g)(2)(B)" means the effective date of this Part adopted by the Department.

(h) "Electric Utility Steam Generating Unit" means

any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that co-generates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electric output to any utility power distribution system for sale shall be considered an electric utility steam generating unit.

(i) "Greenfield Site" means a contiguous area under common control that is an undeveloped site.

(j) "Hazardous Air Pollutant or HAP" means any of the substances listed pursuant to Section 112(g) of the Act.

(k) "List of Source Categories" means the Source Category List required by Section 112(c) of the Act.

(l) "Maximum Achievable Control Technology (MACT) Emission Limitation for New Sources" means the emission limitation which is not less stringent than the emission limitation achieved in practice by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the Department, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed major source.

(m) "Process or Production Unit" means any collection of structures and/or equipment, that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one process or production unit.

(n) "Reconstruct a Major Source" means the replacement of components at an existing process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, whenever:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable process or

production unit; and

(2) It is technically and economically feasible for the reconstructed major source to meet the applicable maximum achievable control technology emission limitation for new sources established under this Part.

(o) "Research and Development Activities" means activities conducted at a research or laboratory facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a de minims manner.

(p) "Similar Source" means a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed major source such that the source could be controlled using the same control technology.

3.10.3 Maximum Achievable Control Technology (MACT) Determinations for Constructed and Reconstructed Major Sources.

(a) Applicability. The requirements of this Section apply to an owner or operator who constructs or reconstructs a major source of HAP subject to a case-by-case determination of maximum achievable control technology pursuant to this Part.

(b) Principles of MACT determinations. The following general principles shall govern preparation by the owner or operator of each permit application or other application requiring a case-by-case MACT determination concerning construction or reconstruction of a major source, and all subsequent review of and actions taken concerning such an application by the Department:

(1) The MACT emission limitation or MACT requirements recommended by the applicant and approved by the Department shall not be less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the Department.

(2) Based upon available information, as defined in this Part, the MACT emission limitation and control technology (including any requirements under Subparagraph (b)(3) below) recommended by the applicant and approved by the Department shall achieve the maximum degree of reduction in emissions of HAP which can be achieved by utilizing those control technologies that can be identified from the available information, taking into consideration the costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.

(3) The applicant may recommend a specific design, equipment, work practice, or operational standard, or a combination thereof, and the Department may approve such a standard if the Department specifically determines that it is not feasible to prescribe or enforce an emission limitation under the criteria set forth in Section 112(h)(2) of the Act.

(4) If the Administrator has either proposed a relevant emission standard pursuant to Section 112(d) or Section 112(h) of the Act or adopted a presumptive MACT determination for the source category which includes the constructed or reconstructed major source, then the MACT requirements applied to the constructed or reconstructed major source shall have considered those MACT emission limitations and requirements of the proposed standard or presumptive MACT determination.

(c) Application requirements for a case-by-case MACT determination.

(1) An application for a MACT determination (whether a permit application under Part 3.9, or other permit specified by the Department under Paragraph (d) of this Section) shall specify a control technology selected by the owner or operator that, if properly operated and maintained, will meet the MACT emission limitation or standard as determined according to the principles set forth in Paragraph (b) of this Section.

(2) In each instance where a constructed or reconstructed major source would require additional control technology or a change in control technology, the application for a MACT determination shall contain the

following information:

(i) The name and address (physical location) of the major source to be constructed or reconstructed;

(ii) A brief description of the major source to be constructed or reconstructed and identification of any listed source category or categories in which it is included;

(iii) The expected commencement date for the construction or reconstruction of the major source;

(iv) The expected completion date for construction or reconstruction of the major source;

(v) The anticipated date of start-up for the constructed or reconstructed major source;

(vi) The HAP emitted by the constructed or reconstructed major source, and the estimated emission rate for each such HAP, to the extent this information is needed by the Department to determine MACT;

(vii) Any enforceable emission limitations applicable to the constructed or reconstructed major source;

(viii) The maximum and expected utilization of capacity of the constructed or reconstructed major source, and the associated uncontrolled emission rates for that source, to the extent this information is needed by the Department to determine MACT;

(ix) The controlled emissions for the constructed or reconstructed major source in tons/yr at expected and maximum utilization of capacity, to the extent this information is needed by the Department to determine MACT;

(x) A recommended emission limitation for the constructed or reconstructed major source consistent with the principles set forth in Paragraph (b) of this Section;

(xi) The selected control technology to meet

the recommended MACT emission limitation, including technical information on the design, operation, size, estimated control efficiency of the control technology (and the manufacturer's name, address, telephone number, and relevant specifications and drawings, if requested by the Department);

(xii) Supporting documentation including identification of alternative control technologies considered by the applicant to meet the emission limitation, and analysis of cost and non-air quality health environmental impacts or energy requirements for the selected control technology; and

(xiii) Any other relevant information required pursuant to Subpart A, 40 CFR 63.

(3) In each instance where the owner or operator contends that a constructed or reconstructed major source will be in compliance, upon startup, with case-by-case MACT under this Rule without a change in control technology, the application for a MACT determination shall contain the following information:

(i) The information described in Subdivisions (2)(i) through (2)(x) of this Paragraph; and

(ii) Documentation of the control technology in place.

(d) Permit Content.

(1) The Air Permit will contain a MACT emission limitation (or a MACT work practice standard if the Department determines it is not feasible to prescribe or enforce an emission standard) to control the emissions of HAP. The MACT emission limitation or standard will be determined by the Department and will conform to the principles set forth in Paragraph (b) of this Section.

(2) The Air Permit will specify any notification, operation and maintenance, performance testing, monitoring, reporting and record keeping requirements, including:

(i) Additional emission limits, production limits, operational limits or other terms and conditions necessary to ensure enforceability of the MACT emission

limitation;

(ii Compliance certifications, testing, monitoring, reporting and record keeping requirements that are consistent with the requirements of Part 3.9;

(iii) In accordance with Section 114(a)(3) of the Act, monitoring shall be capable of demonstrating continuous compliance during the applicable reporting period. Such monitoring data shall be of sufficient quality to be used as a basis for enforcing all applicable requirements established under this Part, including emission limitations;

(iv) A statement requiring the owner or operator to comply with all applicable requirements contained in Subpart A of 40 CFR 63;

(3) All provisions contained in the Air Permit shall be enforceable upon the effective date of issuance of said permit, as provided by Paragraph (g) of this Section.

(4) The Air Permit shall expire if construction or reconstruction has not commenced within 18 months of issuance, unless the Department has granted an extension which shall not exceed an additional 12 months.

(e) Public participation.

(1) Notice shall be given by publication in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice and also to persons on a mailing list developed by the Department for persons desiring notice of permit action, including persons who have requested in writing to be on such a list;

(2) The notice shall identify the affected facility; the name and address of the permittee; the address of the Department; the activity or activities involved in the permit action; the emissions change involved in any permit modification; the name, address, and telephone number of a person from whom interested persons may obtain additional information, including copies of the permit draft, the application, all relevant supporting materials, including any compliance plan,

monitoring and compliance certification report, except for information entitled to be kept confidential, and all other materials available to the Department that are relevant to the permit decision; a brief description of the comment procedures required by this Chapter; and the time and place of any hearing that may be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled);

(3) The Department shall provide at least 30 days for public comment and shall give notice of any public hearing at least 30 days in advance of the hearing; and

(4) The Department shall keep a record of the comments made during the public participation process.

(5) Exceptions.

(i) If the owner or operator obtains a Major Source Operating Permit prior to construction or reconstruction of a source subject to this Part, then the requirements of this subparagraph do not apply.

(ii) If the owner or operator is concurrently applying for an Air Permit under Part 3.4 or 3.5 of these Rules, the public participation requirements of those Parts shall substitute for the requirements of this Paragraph.

(f) Prohibition of construction. An owner or operator applying for a MACT emission limitation for new sources under this Part shall not begin construction until a permit has been issued pursuant to this Part.

(g) Effective date. The effective date of a MACT determination shall be the date of issuance of a final Major Source Operating Permit incorporating a MACT determination (in those instances where the owner or operator either is required or elects to obtain such a permit before construction or reconstruction), or a permit issued pursuant to this Part.

(h) Compliance date. On and after the date of start-up, a constructed or reconstructed major source which is subject to the requirements of this Part shall be in compliance with all applicable requirements specified in the MACT determination.

(i) Compliance with MACT determinations.

(1) An owner or operator of a constructed or reconstructed major source that is subject to a MACT determination shall comply with all requirements in the final Major Source Operating Permit (in those instances where the owner or operator either is required or elects to obtain such a permit before construction or reconstruction), or other permit issued pursuant to this Rule, including but not limited to any MACT emission limitation or MACT work practice standard, and any notification, operation and maintenance, performance testing, monitoring, reporting, and recordkeeping requirements.

(2) An owner or operator of a constructed or reconstructed major source which has obtained a MACT determination shall be deemed to be in compliance with Section 112(g)(2)(B) of the Act and this Part only to the extent that the constructed or reconstructed major source is in compliance with all requirements set forth in the final Major Source Operating Permit (in those instances where the owner or operator either is required or elects to obtain such a permit before construction or reconstruction), or other permit issued pursuant to this Part. Any violation of such requirements by the owner or operator shall be deemed by the Department and by EPA to be a violation of the prohibition on construction or reconstruction in Section 112(g)(2)(B) and this Rule for whatever period the owner or operator is determined to be in violation of such requirements, and shall subject the owner or operator to appropriate enforcement action under the Act.

3.10.4 Requirements for Constructed or Reconstructed Major Sources Subject to a Subsequently Promulgated MACT Standard or MACT Requirement.

(a) If the Administrator promulgates an emission standard under Section 112(d) or Section 112(h) of the Act or the Department issues a determination under Section 112(j) of the Act [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B] that is applicable to a stationary source or group of sources which would be deemed to be a constructed or reconstructed major source under this Part before the

date that the owner or operator has obtained a final and legally effective MACT the owner or operator of the source(s) shall comply with the promulgated standard or determination rather than any MACT determination under this Part, and the owner or operator shall comply with the promulgated standard by the compliance date in the promulgated standard.

(b) If the Administrator promulgates an emission standard under Section 112(d) or Section 112(h) of the Act or the Department makes a determination under Section 112(j) of the Act [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B] that is applicable to a stationary source or group of sources which was deemed to be a constructed or reconstructed major source under this Part and has been subject to a prior case-by-case MACT determination pursuant to this Part, and the owner and operator obtained a final and legally effective case-by-case MACT determination prior to the promulgation date of such emission standard, then the Department shall (if the initial Major Source Operating Permit has not yet been issued) issue an initial operating permit which incorporates the emission standard or determination, or shall (if the initial Major Source Operating Permit has been issued) revise the operating permit according to the reopening procedures in Part 3.9 to incorporate the emission standard or determination.

(1) The EPA may include in the emission standard established under Section 112(d) or Section 112(h) of the Act a specific compliance date for those sources which have obtained a final and legally effective MACT determination under this Rule and which have submitted the information required by Section 3.10.3 of this Part to the EPA before the close of the public comment period for the standard established under Section 112(d) of the Act. Such date shall assure that the owner or operator shall comply with the promulgated standard as expeditiously as practicable, but not longer than 8 years after such standard is promulgated. In that event, the Department shall incorporate the applicable compliance date in the Major Source Operating Permit.

(2) If no compliance date has been established in the promulgated Section 112(d) or 112(h) standard or Section 112(j) determination [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B], for

those sources which have obtained a final and legally effective MACT determination under this Part, then the Department shall establish a compliance date in the permit that assures that the owner or operator shall comply with the promulgated standard or determination as expeditiously as practicable, but not longer than 8 years after such standard is promulgated or a Section 112(j) determination [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B] is made.

(c) Notwithstanding the requirements of Paragraphs (a) and (b) of this Section, if the Administrator promulgates an emission standard under Section 112(d) or Section 112(h) of the Act or the Department issues a determination under Section 112(j) of the Act [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B] that is applicable to a stationary source or group of sources which was deemed to be a constructed or reconstructed major source under this Part and which is the subject of a prior case-by-case MACT determination pursuant to Section 3.10.3 of this Part, and the level of control required by the emission standard issued under Section 112(d) or Section 112(h) or the determination issued under Section 112(j) [40 CFR 63, Subpart B, as incorporated by reference in Part 14.5 Subpart B] is less stringent than the level of control required by any emission limitation or standard in the prior MACT determination, the Department is not required to incorporate any less stringent terms of the promulgated standard in the Major Source Operating Permit applicable to such source(s) and may in its discretion consider any more stringent provisions of the prior MACT determination to be applicable legal requirements when issuing or revising such an operating permit.

CHAPTER 4. VARIANCES

4.1 Granting of Variances.

4.1.1 The Board may grant individual variances beyond the limitations prescribed in the Act or these regulations, whenever it is found, upon presentation of adequate proof, that compliance with any rule or regulation, requirement or order of the Board or Director would impose serious hardship without equal or greater benefits to the public, and the emissions occurring or proposed to occur do not endanger or tend to endanger human health or safety, human comfort, and aesthetic values. In granting or denying a variance, the Board shall file and publish a written opinion stating the facts and reasons leading to its decision.

4.1.2 In granting a variance, the Board may impose such conditions as the policies of the Act and these rules and regulations may require. If the hardship complained of consists solely of the need for a reasonable delay in which to correct a violation of these rules and regulations, the Board shall condition the granting of such variance upon the posting of sufficient performance bond or other security to assure the correction of such violation within the time prescribed.

4.1.3 Any variance granted pursuant to the provisions of this section shall be granted for such period of time, not exceeding one year, as shall be specified by the Board at the time of the grant of such variance, and upon the condition that the person who receives such variance shall make such periodic progress reports as the Board shall specify. Such variance may be extended from year to year by affirmative action of the Board, but only if satisfactory progress has been shown.

4.1.4 Any person seeking a variance shall do so by filing a petition for variance with the Board, which shall promptly give notice of such petition in a newspaper of general circulation in the city. The Director shall promptly investigate such petition, consider the views of persons who might be adversely affected by the granting of a variance and make a recommendation to the Board as to the disposition of the

petition. If the Board, in its discretion, concludes that a hearing would be advisable, or if any person files a written objection to the grant for such variance within 21 days of petition notice, then a hearing shall be held. All such hearings shall be open to the public, and reasonable opportunity to be heard with respect to the subject of the hearing shall be afforded to any person. All testimony taken before the Board shall be recorded stenographically. The transcript so recorded and any written submissions to the Board in relation to such hearings shall be open to public inspection.

4.1.5 If the Board fails to take final action upon a variance request within 90 days after the filing of the petition, the petitioner may deem the request denied.

4.1.6 A variance or renewal shall not be a right of the applicant or holder thereof, but shall be at the discretion of the Board; however, any person adversely affected by a variance or renewal granted by the Board may obtain judicial review by filing notice of appeal with the Register in Chancery of Madison County in Equity within twenty days from the action of the Board thereon. The case shall be heard by the Court under the same rules and with the same requirements as a petition for injunction would be heard. On appeal, the Circuit Court shall grant said variance unless it finds the operation of the air contamination source in the manner allowed in the variance would amount to a private or public nuisance, or if it finds that the Board acted arbitrarily or capriciously.

4.2 Petition Procedures.

4.2.1 Any person subject to any rule or regulation, requirement or order, may petition the Board for a variance from the application thereof, as prescribed by the Act or these regulations. A petition for a variance must state the following:

(a) the name, address and telephone number of the petitioner or other person authorized to receive service of notices.

(b) whether the petitioner is an individual, partnership, corporation or other entity, and names and addresses of the officers, if a corporation, and names

and addresses of the persons in control, if other entity.

(c) the type of business or activity involved in the application and the street address at which it is conducted.

(d) a brief description of the article, machine, equipment or other contrivance, if any, involved in the petition.

(e) the signature of the petitioner or that of some person on his behalf, and, where the person signing is not the petitioner, the authority to sign.

(f) the rule or regulation, requirement, or order from which a variance is requested.

(g) the facts showing why compliance with such rule or regulation, requirement or order would impose serious hardship on the petitioner or on any other person or persons without equal or greater benefits to the public.

(h) the facts showing why the emissions occurring or proposed to occur do not endanger or tend to endanger human health or safety, human comfort, and aesthetic values.

(i) for what period of time the variance is sought and why.

(j) provisions of the rule or regulation, requirement or order which the petitioner can meet and the date when petitioner can comply with such provisions.

(k) whether or not any case involving the same identical equipment or process identified in subparagraph (d) is pending in any court -- civil or criminal.

4.2.2 All petitions shall be typewritten, double spaced, on legal or letter size paper, on one side of the paper only.

4.3 Failure to Comply with Procedures.

4.3.1 The Director shall not accept for filing any petition which does not comply with these rules and regulations relating to the form, filing and service of

petitions unless the Chairman or any two members of the Board direct otherwise and confirm such direction in writing. Such direction need not be made at a meeting of the Board.

4.3.2 The Chairman or any two members, without a meeting, may require the petitioner to state further facts or reframe a petition so as to disclose clearly the issues involved.

4.4 Objection Procedures.

4.4.1 A person may file a written objection to the granting of a variance within 21 days from initial advertised notice and thus insure that a public hearing will be held, according to Section 4.1.4 of this Chapter. An objection to the granting of a variance must state:

(a) the objector's name, address, and telephone number.

(b) whether the objector is an individual, partnership, corporation or other entity, and names and addresses of the partners if a partnership, names and addresses of the officers if a corporation, and the names and addresses of the persons in control if other entity.

(c) a specification of which petition for a variance is being objected to.

(d) a statement indicating why the objector believes that the variance should not be granted.

4.4.2 All objections should be typewritten or carefully printed in ink on legal or letter size paper.

CHAPTER 5. CONTROL OF OPEN BURNING AND INCINERATION
(amended April 23, 1992)

5.1 Open Burning.

5.1.1 Control of open burning. No person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire except as follows: (amended July 26, 2007)

(a) open fires for the cooking of food for human consumption on other than commercial premises;

(b) ceremonial fires (such as school bonfires) when the fires are approved, ignited, and extinguished by Huntsville Fire Department personnel. Each school will be permitted one permit per year;

(c) fires to abate a fire hazard, providing the hazard is so declared by the fire department;

(d) fires used to destroy pests, germs, dead animals, etc. when the open burning is being conducted in accordance with, or under the direct supervision of personnel of the local or state Health Department;

(e) fires for training and instruction of public or private fire-fighting personnel provided that all requirements of the asbestos demolition and renovation standard in Subpart M of Part 14.2 are met;

(f) fires set for recognized agricultural, horticultural, silvicultural, and wildlife management purposes, when specifically recommended by the Alabama Extension Service or Alabama Forestry Commission, provided such fires are conducted only in situations where the actual burning is at least 1500 feet from the closest occupied building;

(g) fires set in salamanders or other devices approved by the Director used by construction or other workers for heating purposes;

(h) fires for the burning of trees, brush, grass, and other vegetable matter grown on that tract of land if such burning is done by the air-curtain destructor

method, properly constructed and maintained, or by an equivalent method specifically approved by the Director;

(i) open burning of leaves and small tree limbs, less than three inches in diameter, at a residence where collection for such material is not available. The determination of availability will be made by the Director. Burning of trees or limbs cut as a commercial service by tree surgeons, landscapers, or other person is prohibited; and

(j) smokeless flares or safety flares for the combustion of waste gases.

5.1.2 Open Burning Permits (amended July 26, 2007)

(a) Any person open burning within the city limits of Huntsville shall first obtain authorization from the Director in the form of an Open Burning Permit.

(b) Open burning permits may be issued subject to specific conditions, consistent with standards provided herein, in which case the conditions shall be specified in writing. The holder of an Open Burning Permit shall comply with conditions contained in such permit as well as all applicable provisions of this rule.

(c) Permit Applications. Applications for open burning permits shall be in the form prescribed by the Director and shall give all the information necessary to enable the Director to make the determinations herein required. Applications should be submitted a minimum of three days prior to the requested burn date.

(d) Action on Application. The Director shall act, within a reasonable time, on an application for an Open Burning Permit and shall notify the applicant in writing of its approval, conditional approval, or denial.

(e) Permit Fees. Open Burning Permit fees in the amount of one hundred dollars $100.00) per permit shall be paid at the time of application. Fees shall be made payable to the City of Huntsville and shall be non-refundable. (amended July 26, 2007)

(f) The Director shall not issue an Open Burning Permit during any time that an open burning ban has been

imposed by ADEM or the Alabama Forestry Commission.

(g) Revocation of Permit. Any Open Burning Permit granted by the Director may be revoked, after notice and hearing, for any of the following causes:

(1) failure to comply with the provisions of the Air Pollution Control Rules and Regulations;

(2) failure to comply with any conditions of the Open Burning Permit; and

(3) for any other cause if, in the judgement of the Director, continuance of the permit is not consistent with the purposes of these regulations.

(h) Transfer. An Open Burning Permit shall not be transferable whether by operation or law or otherwise, either from one location to another, or from one person to another.

(i) Expiration of Permit. Open Burning Permits shall expire on the date specified on the face of the permit. In no event, however, may an Open Burning Permit be issued which has an expiration date of longer than ten days from the burn start date.

5.2 Incinerator Design and Operation.
(Amended April 23, 1992)

5.2.1 No residential or commercial single-chamber incinerator shall be used for the burning of refuse for a period in excess of 18 months after the initial adoption date of these rules and regulations.

5.2.2 All new incinerators and all existing incinerators, within 18 months after the initial adoption date of these rules and regulations, shall be multiple-chamber incinerators, provided that the Director may approve any other type of incinerator if it is demonstrated such design provides equivalent performance.

5.2.3 Incinerators shall be designed and operated in such manner as is necessary to prevent the emission of objectionable odors.

5.2.4 No person shall cause or permit to be emitted

into the open air from any incinerator, particulate matter in the exhaust gases to exceed 0.20 pounds per 100 pounds of refuse charged; provided that: for incinerators of more than 50 tons per day charging rate, particulate matter in the exhaust gases may not exceed 0.10 pounds per 100 pounds of refuse charged.

5.2.5 Emission tests shall be conducted at maximum burning capacity of the incinerator.

5.2.6 The burning capacity of an incinerator shall be the manufacturer's or designer's guaranteed maximum rate or such other rate as may be determined by the Director in accordance with good engineering practices. In case of conflict, the determination made by the Director shall govern.

5.2.7 For the purposes of this Part, the total of the capacities of all furnaces within one system shall be considered as the incinerator capacity.

5.3 Incineration of Wood, Peanut, and Cotton Ginning Waste.

5.3.1 No person shall cause or permit to be emitted into the open air from any incinerator which incinerates wood, peanut, or cotton ginning waste, particulate matter in the exhaust gases to exceed 0.40 pounds per 100 pounds of material charged.

5.3.2 Emission tests shall be conducted at a maximum burning capacity of the incinerator.

5.3.3 The burning capacity of an incinerator shall be the manufacturer's or designer's guaranteed maximum rate or such other rate as may be determined by the Director in accordance with good engineering practices. In case of conflict, the determination made by the Director shall govern.

5.3.4 Each incinerator subject to this Part shall be properly designed, equipped, and maintained for its maximum burning capacity, and shall be equipped with a temperature recorder which shall be operated continuously with the incinerator and the temperature records shall be made available for inspection at the request of the Director, and shall either:

(a) be equipped with an underfire forced air system, which shall be electronically controlled to insure the optimum temperature range for the complete combustion of the amount and type of material waste being charged into the incinerator; and a variable damper; or

(b) consist of an all metal shell with refractory lining, circular furnace, and a built-in cinder catching system for either reburning or other disposition; all primary combustion air shall be supplied under pressure through nozzle openings located around the periphery of the lower furnace; over-fire air shall be provided under pressure through ports which shall be directed downward and tangentially in the same direction as the primary air; cinder collection shall be accomplished by the provision of openings through the shell located above the furnace section.

5.3.5 Each incinerator subject to this part shall be properly designed, equipped, and maintained for its maximum rated burning capacity and shall be equipped with an underfire forced air system, an over-fire air recirculation secondary combustion system, and variable control damper, all of which shall be electronically controlled to insure the optimum temperature range for the complete combustion of the amount and type of material waste being charged into the incinerator. Each such incinerator shall be equipped with a temperature recorder which shall be operated continuously with the incinerator, and the temperature records shall be made available for inspection at the request of the Director. (amended April 23, 1992)

5.4 Incineration of Hospital/Medical/ Infectious Waste. (Adopted July 22, 1999)

5.4.1 For the purpose of this Rule, the following definitions apply: (amended April 10, 2003)

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

(b) "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.

(c) "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.

(d) "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.

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

(f) "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.

(g) "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.

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

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

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

(k) "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.

(l) "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.

(m) Reserved

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

(o) "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.

(p) "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.

(q) "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.

(r) "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.

(s) "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.

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

(u) "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 than 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 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.

(v) "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)].

(w) "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.

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

(1) For intermittent and continuous HMIWI,

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

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,

$$C = PV \times 4.5/8$$

Where:

C = HMIWI capacity, lb/hr

PV = primary chamber volume, ft^3

4.5 = waste density, lb/ft^3

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

(y) "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.

(z) "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.

(aa) "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 below: The definition of medical/ infectious waste does not include hazardous waste identified or listed under the regulations in ADEM Admin. Code R. 335-14-2; household waste, as defined in ADEM Admin. Code R. 335-14-2-.01(4)(b)1.; 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 identified in ADEM Admin. Code R. 335-14-2-.01(4)(a)1.

(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, organ, 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.

(bb) "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.

(cc) "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.

(dd) "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.

(ee) "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.

(ff) "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.

(gg) "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.

(hh) "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.

(ii) "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.

(jj) "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.

(kk) "Modification or Modified HMIWI" means any change to an HMIWI unit on or after June 20, 1996 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.

(ll) "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.

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

(nn) "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.

(oo) "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).

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

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

(rr) "Responsible Official" means one of the following:

(1) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The degelation of authority to such representatives is approved in advance by the Department;

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(3) For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this Part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal

geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected sources: the designated representative for any other purposes under this Part.

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

(tt) "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.

(uu) "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.

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

(ww) "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 (see 40 CFR §60.17).

(xx) "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.

(yy) "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 organics) and/or to absorb and neutralize acid gases.

5.4.2 Applicability.

(a) Except as provided in paragraphs (b) through (h) of this section, the designated facility to which this Rule applies is each individual HMIWI for which construction was commenced on or before June 20, 1996.

(b) A combustor is not subject to this Rule 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 Director 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 this Rule if the owner or operator of the co-fired combustor:

1. Notifies the Director 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 this Rule.

(e) Any combustor which meets the applicability requirements under 40 CFR, Subpart Cb, Ea, or Eb [Part 13.2 Subparts Ea and Eb] (standards or guidelines for

certain municipal waste combustors) is not subject to this Rule.

(f) Any pyrolysis unit is not subject to this Rule.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this Rule.

(h) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with this Rule are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of 40 CFR, Subpart Ec [Part 13.2 Subpart Ec].

(i) Each existing HMIWI is subject to the permitting requirements in Part 3.9 of these Regulations. Each owner and operator of an existing HMIWI shall submit a Major Source Operating Permit application to the Department by December 15, 1999.

(j) Beginning September 15, 2000, designated facilities subject to this Rule shall operate pursuant to a permit issued under Part 3.9.

5.4.3 Emission limits.

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of Title 40 of the Code of Federal Regulations, whichever date comes first, 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 section.

(b) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, 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 total dioxins/furans 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%

5.4.4 Operator Training and Qualification Requirements.

(a) Compliance with the requirements of this section shall occur no later than one year after EPA approval of ADEM Admin. Code R. 335-3-3-.04.

(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 paragraphs (d) through (k) of this section.

(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) Bottom and fly ash characteristics and handling procedures;

(ix) Applicable Federal, State, and Local regulations;

(x) Work safety procedures;

(xi) Pre-startup inspections; and

(xii) 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 paragraph (d) of this section; 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) 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 paragraph (g) of this section 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 paragraph (d) of this section 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 this Rule;

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

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

(4) HMIWI startup, or shutdown 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 this Rule;

(7) Procedures for monitoring HMIWI emissions;

(8) Reporting and recordkeeping procedures; and

(9) Procedures for handling ash.

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

(1) The initial review of the information listed in paragraph (i) of this section shall be conducted within 6 months after EPA approval of ADEM Admin. Code R. 335-3-3-.04 or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

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

(k) The information listed in paragraph (i) of this section 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.

5.4.5 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.

5.4.6 Inspection Guidelines. (Reserved)

5.4.7 Compliance and Performance Testing.

(a) The emission limits under this Rule apply at all times except during periods of startup or shutdown, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup or shutdown.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under 40 CFR §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. (amended April 10, 2003)

(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 CFR 60 shall be used to select the sampling location and number of traverse points.

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

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

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

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 of Appendix A of 40 CFR 60 shall be used to measure the particulate matter emissions.

(7) EPA Reference Method 9 of Appendix A of 40 CFR 60 shall be used to measure stack opacity.

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

(9) EPA Reference Method 23 of Appendix A of 40 CFR 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 section 5.4.3 of this Rule, 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 2 of this Rule.

(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.

TABLE 2. 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

(10) EPA Reference Method 26 or 26A of Appendix A of 40 CFR 60 shall be used to measure HCl emissions.

If the affected facility has selected the percentage reduction standards for HCl under section 5.4.3 of this Rule, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

Where:

R_{HCl} = percentage reduction of HCl emissions

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

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 CFR 60 shall be used to measure Pb, Cd, and Hg emissions. If the affected facility has selected the percentage reduction standards for metals under section 5.4.3 of this Rule, the percentage reduction in emissions (%R metal) is computed using the following formula:

Where:

$\%R_{metal}$ = percentage reduction of metal emission (Pb,

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

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).

(c) Following the date on which the initial performance test is completed or is required to be completed under 40 CFR §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 paragraph (b) of this section.

(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 paragraph (b) of this section. 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, if specifically approved by the Director. 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 specifically approved by the Director. 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 section 5.4.3 of this Rule 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 or shutdown).

(ii) Operate all CEMS in accordance with the applicable procedures under Appendices B and F of 40 CFR 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 3 of this Rule 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 40 CFR §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 3 of this Rule 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 or shutdown. 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 paragraph (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 or shutdown) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(f) Except as provided in paragraph (h) of this section, 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 or shutdown) shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emission limits.

(g) Except as provided in paragraph (h) of this section, 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 or shutdown) 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 paragraph (e), (f), or (g) of this section.

(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 section 5.4.3 of this Rule 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 Administrator may request a repeat performance test at any time.

(k) Reserved.

5.4.8 Monitoring.

(a) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 3 of this Rule such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 3 of this Rule at all times except during periods of startup and shutdown.

(b) The owner or operator of an affected facility shall install, calibrate (to manufacturers' 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 section 5.4.3 of this Rule shall install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to section 5.4.7(i) of this Rule.

(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) Reserved.

TABLE 3. 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	1x hour	√	√	√
Maximum fabric filter inlet temperature	Continuous	1x minute	√		√
Maximum flue gas temperature	Continuous	1x minute	√	√	
Minimum operating parameters:					
Minimum secondary chamber temperature	Continuous	1x minute	√	√	√
Minimum dioxin/furan sorbent flow rate	Hourly	1x hour	√		√
Minimum HCl sorbent flow rate	Hourly	1x hour	√		√
Minimum mercury (Hg) sorbent flow rate	Hourly	1x hour	√		√
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to the scrubber	Continuous	1x minute		√	√
Minimum scrubber liquor flow rate	Continuous	1x minute		√	√
Minimum scrubber liquor Ph	Continuous	1x minute		√	√

5.4.9 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 section 5.4.3 of this Rule 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 section 5.4.7(i) and 5.4.8(c) of this Rule, 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 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.

(5) 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.

(6) Records showing the names of HMIWI operators who have completed review of the information in section 5.4.4(i) as required by subparagraph 5.4.4(j), including the date of the initial review and all subsequent annual reviews;

(7) 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;

(8) Records showing the names of the HMIWI operators who have met the criteria for qualification under section 5.4.4 of this Rule and the dates of their qualification; and

(9) Records of calibration of any monitoring devices as required under section 5.4.8 (a), (b), and (c) of this Rule.

(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 responsible official. (amended April 10, 2003)

(1) The initial performance test data as recorded under section 5.4.7(b)(1) through (b)(11), as applicable.

(2) The values for the site-specific operating parameters established pursuant to section 5.4.7(d) or (i), as applicable.

(3) The waste management plan as specified in section 5.4.5 of this Rule.

(c) An annual report shall be submitted 1 year following the submission of the information in paragraph (b) of this section and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements under Part 3.9, 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 responsible official. (amended April 10, 2003)

(1) The values for the site-specific operating parameters established pursuant to section 5.4.7(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 section 5.4.7(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 5.4.7(d) or (i) for the calendar year preceding the year being reported, in order to provide the Director with a summary of the performance of the affected facility over a 2-year period.

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

(5) Any information recorded under subparagraphs (c)(3) through (c)(5) of this paragraph for the calendar year preceding the year being reported, in order to provide the Director 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 were reported under subparagraphs (c)(3) through (c)(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 its use, 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 responsible official. (amended April 10, 2003)

(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 Director.

(f) Reserved.

5.4.10 Compliance Schedules.

(a) Except as provided in subparagraph (b), designated facilities to which this Rule applies [as defined in section 5.4.2] shall comply with all requirements of this Rule on or before the date one year after EPA approval of ADEM Admin. Code R. 335-3-3-.04, regardless of whether the Department has identified a designated facility in its inventory required by §60.25(a) of 40 CFR, Subpart B.

(b) For designated facilities planning to install the necessary air pollution control equipment, the Department may allow compliance on or before the date three years after EPA approval of ADEM Admin. Code R 335-3-3-.04, but as expeditiously as possible. Within 90 days of EPA's approval of ADEM Admin. Code R. 335-3-3-.04, these facilities shall petition the Department in writing, as outlined in subparagraphs (1) through (2)

below. Under no circumstances can compliance with these Rules extend beyond September 15, 2002.

(1) Documentation of the analyses undertaken to support the need for an extension, including an explanation of why up to 3 years after EPA approval of ADEM Admin. Code R. 335-3-3-.04 is sufficient time to comply while 1 year after EPA approval of ADEM Admin. Code R. 335-3-3-.04 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 this Rule, as defined in subparagraphs (i) through (x) below:

(i) Date for submitting a petition for site specific operating parameters under section 5.4.7(i) of this Rule [§60.56c(i) of 40 CFR Subpart Ec].

(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 these Rules shall notify the Department in writing, within 90 days after EPA approval of ADEM Admin. Code R. 335-3-3-.04. The notification shall include documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with this Rule, 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 they shall determine:

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

(2) The Department may grant the request of the petition, as petitioned or by imposing such conditions as these Rules may require in the Major Source Operating Permit, including the establishment of schedules of compliance.

(3) 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.

5.5 Incineration of Commercial and Industrial Solid Waste. (Amended March 10, 2016)

5.5.1 Terms used but not defined in this Part are defined in 40 CFR 60, Subparts A and B, and are incorporated by reference in Chapter 13. For the purposes of this Part only, the following definitions apply:

(a) "30-day rolling average" means the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes periods when this unit is not operating. The 720 hours should be consecutive, but not necessarily continuous if operations are intermittent.

(b) "Administrator" means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative.

(c) "Affirmative defense" means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

(d) "Agricultural waste" means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

(e) "Air curtain incinerator" means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(f) “Annual heat input” means the heat input for the 12 months preceding the compliance demonstration.

(g) "Auxiliary fuel" means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

(h) “Average annual heat input rate” means annual heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

(i) "Bag leak detection system" means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

(j) “Burn-off oven” means any rack reclamation unit, part reclamation unit, or drum reclamation unit. A burn-off oven is not an incinerator, waste- burning kiln, an energy recover unit or a small, remote incinerator under this Part.

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

(l) "Calendar quarter" means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

(m) "Calendar year" means 365 consecutive days starting on January 1 and ending on December 31.

(n) “CEMS data during startup and shutdown” means the following:

(1) For incinerators, small remote incinerators, and energy recovery units: CEMS data collected during the first hours of operation of a CISWI unit startup from a cold start until waste is fed into the unit and the hours of operation following the cessation of waste material being fed to the CISWI unit during a unit shutdown. For

each startup event, the length of time that CEMS data may be claimed as being CEMS data during startup must be 48 operating hours or less. For each shutdown event, the length of time that CEMS data may be claimed as being CEMS data during shutdown must be 24 operating hours or less.

(2) For waste-burning kilns: CEMS data collected during the periods of kiln operation that do not include normal operations. Startup begins when the kiln's induced fan is turned on and continues until continuous feed is introduced into the kiln, at which time the kiln is in normal operating mode. Shutdown begins when feed to the kiln is halted.

(o) "Chemical recovery unit" means 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. A chemical recovery unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this Part. The following seven types of units are considered chemical recovery units:

(1) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(3) Units burning only wood or coal feedstock for the production of charcoal.

(4) Units burning only manufacturing byproduct streams/residue containing catalyst metals that are reclaimed and reused as catalysts or used to produce commercial grade catalysts.

(5) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.

(6) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.

(7) Units burning only photographic film to recover silver.

(p) "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.

(q) "Clean lumber" means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

(r) "Commercial and industrial solid waste incineration (CISWI) unit" means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 CFR part 241. If the operating unit burns material other than traditional fuels as defined in §241.2 that have been discarded, and the owner or operator does not keep and produce records as required by paragraph 5.5.11(u) of this Part, the operating unit is a CISWI unit. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the 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 or after the waste heat recovery equipment, if any;

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar

equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system.

(3) A CISWI unit does not include any of the types of units described in paragraph 5.5.2(d) of this Part, nor does it include any combustion turbine or reciprocating internal combustion engine.

(s) "Contained gaseous material" means gases that are in a container when that container is combusted.

(t) "Continuous emission monitoring system (CEMS)" means the total equipment that may be required to meet the data acquisition and availability requirements of this Part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

(u) "Continuous monitoring system (CMS)" means the total equipment, required under the emission monitoring sections in applicable rules, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters. A particulate matter continuous parameter monitoring system (PM CPMS) is a type of CMS.

(v) "Cyclonic burn barrel" means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air. A cyclonic burn barrel is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this Part.

(w) "Deviation" means any instance in which an affected source subject to this Part, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this Part, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this Part and that is included in the operating permit for any affected source required to obtain such a permit.

(x) "Dioxins/furans" means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

(y) "Discard" means, for purposes of this Part and 40 CFR 60, Subpart CCCC [Part 13.2 Subpart CCCC], only, burned in an incineration unit without energy recovery.

(z) "Drum reclamation unit" means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.

(aa) "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 gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

(bb) "Energy recovery" means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

(cc) "Energy recovery unit" means a combustion unit combusting solid waste (as that term is defined by the Administrator in 40 CFR part 241) for energy recovery. Energy recovery units include units that would be considered boilers and process heaters if they did not combust solid waste.

(dd) "Energy recovery unit designed to burn biomass (Biomass)" means an energy recovery unit that burns solid waste, biomass, and non-coal solid materials but less than 10 percent coal, on a heat input basis on an annual average, either alone or in combination with liquid waste, liquid fuel or gaseous fuels.

(ee) "Energy recovery unit designed to burn coal (Coal)" means an energy recovery unit that burns solid waste and at least 10 percent coal on a heat input basis on an annual average, either alone or in combination with liquid waste, liquid fuel or gaseous fuels.

(ff) "Energy recovery unit designed to burn liquid waste materials and gas (Liquid/gas)" means an energy recovery unit that burns a liquid waste with liquid or gaseous fuels not combined with any solid fuel or waste materials.

(gg) "Energy recovery unit designed to burn solid materials (Solids)" includes energy recovery units designed to burn coal and energy recovery units designed to burn biomass.

(hh) "Fabric filter" means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

(ii) "Foundry sand thermal reclamation unit" means a type of part reclamation unit that removes coatings that are on foundry sand. A foundry sand thermal reclamation unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this Part.

(jj) "Incinerator" means any furnace used in the process of combusting solid waste (as that term is defined by the Administrator under Resource Conservation and Recovery Act in 40 CFR part 241) for the purpose of reducing the volume of the waste by removing combustible matter. Incinerator designs include single chamber and two-chamber.

(kk) "Kiln" means an oven or furnace, including any associated preheater or precalciner devices, used for processing a substance by burning, firing or drying. Kilns include cement kilns that produce clinker by heating limestone and other materials for subsequent production of Portland Cement.

(ll) "Laboratory analysis unit" means units that burn samples of materials for the purpose of chemical or physical analysis. A laboratory analysis unit is not an incinerator, waste-

burning kiln, an energy recovery unit or a small, remote incinerator under this Part.

(mm) "Load fraction" means the actual heat input of an energy recovery unit divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

(nn) "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)).

(oo) "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.

(pp) "Minimum voltage or amperage" means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured during the most recent particulate matter or mercury performance test demonstrating compliance with the applicable emission limits.

(qq) "Modification or modified CISWI unit" means a CISWI unit that has been changed later than August 7, 2013 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(2) Any physical change in the CISWI

unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

(rr) "Municipal solid waste or municipal-type solid waste" means household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse- derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

(ss) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(tt) "Operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any amount of solid waste is combusted at any time in the CISWI unit.

(uu) "Oxygen analyzer system" means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler/process heater, firebox, or other appropriate location. This definition includes oxygen trim systems and certified oxygen CEMS. The source owner or operator is responsible to install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

(vv) "Oxygen trim system" means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

(ww) "Part reclamation unit" means a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.

(xx) "Particulate matter" means total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of 40 CFR 60, Appendix A.

(yy) "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).

(zz) "Performance evaluation" means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

(aaa) "Performance test" means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

(bbb) "Process change" means any of the following physical or operational changes:

(1) A physical change (maintenance activities excluded) to the CISWI unit which may increase the emission rate of any air pollutant to which a standard applies;

(2) An operational change to the CISWI unit where a new type of non- hazardous secondary material is being combusted;

(3) A physical change (maintenance activities excluded) to the air pollution control devices used to comply with the emission limits for the CISWI unit (e.g., replacing an

electrostatic precipitator with a fabric filter);

(4) An operational change to the air pollution control devices used to comply with the emission limits for the affected CISWI unit (e.g., change in the sorbent injection rate used for activated carbon injection).

(ccc) "Rack reclamation unit" means a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused.

(ddd) Raw mill means a ball or tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

(eee) "Reconstruction" means rebuilding a CISWI unit and meeting two criteria:

(1) The reconstruction begins on or after August 7, 2013.

(2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(fff) "Refuse-derived fuel" means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(2) Pelletized refuse-derived fuel.

(ggg) "Responsible Official" means one of the following:

(1) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representatives is approved in advance by the Department;

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(3) For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this Part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected facilities:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the Clean Air Act or the regulations promulgated there under are concerned; or

(ii) The designated representative for any other purposes under 40 CFR Part 60.

(hhh) "Shutdown" means the period of time after all waste has been combusted in the primary chamber.

(iii) "Small, remote incinerator" means an incinerator that combusts solid waste (as that term is defined by the Administrator in 40 CFR part 241) and combusts 3 tons per day or less solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill.

(jjj) "Soil treatment unit" means a unit that thermally treats petroleum- contaminated soils for the sole purpose of site remediation. A soil treatment unit may be direct-fired or indirect fired. A soil treatment unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this Part.

(kkk) "Solid waste" (as defined in 40 CFR 241.2) 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 solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

(lll) "Solid waste incineration unit" means a distinct operating unit of any facility which combusts any solid waste (as that term is defined by the Administrator in 40 CFR part 241) material from commercial or industrial establishments or the general public (including single and multiple residences, hotels and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term "solid waste incineration unit" does not include:

(1) Materials recovery facilities (including primary or secondary smelters) which

combust waste for the primary purpose of recovering metals;

(2) Qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes; or

(3) Air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Director by rule.

(mmm) "Space heater" means a unit that meets the requirements of 40 CFR 279.23. A space heater is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this Part.

(nnn) "Standard conditions, when referring to units of measure", means a temperature of 68 deg. F (20 deg. C) and a pressure of 1 atmosphere (101.3 kilopascals).

(ooo) "Startup period" means the period of time between the activation of the system and the first charge to the unit.

(ppp) "Waste-burning kiln" means a kiln that is heated, in whole or in part, by combusting solid waste (as the term is defined by the Administrator in 40 CFR part 241). Secondary materials used in Portland cement kilns shall not be deemed to be combusted unless they are introduced into the flame zone in the hot end of the kiln or mixed with the precalciner fuel.

(qqq) "Wet scrubber" means an add-on air

pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

(rrr) "Wood waste" means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/ retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

(2) Construction, renovation or demolition wastes.

(3) Clean lumber.

5.5.2 Applicability.

(a) Except as provided in paragraph (b) below, the designated facility to which this Part applies is each individual CISWI that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013.

(b) If the owner or operator of a CISWI unit makes changes that meet the definition of modification or reconstruction on or after August 7, 2013, the CISWI unit becomes subject to 40 CFR 60, Subpart CCCC [Part 13.2 Subpart CCCC] and this Part no longer applies to that unit.

(c) If the owner or operator of a CISWI unit makes physical or operational changes to an existing CISWI unit primarily to comply with this Part, then 40 CFR 60, Subpart CCCC [Part 13.2 Subpart CCCC] does not apply to that unit. Such changes do not qualify as modifications or reconstructions under Subpart CCCC.

(d) The following types of units are exempt from this Part, but some units are required to provide notification. Air curtain incinerators are exempt from the requirements in this Part except for the provisions in Section 5.5.12, paragraphs 5.5.13(j) and 5.5.13(l) of this Part:

(1) Pathological waste incineration units. Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in Section 5.5.1 are not subject to this Part if the two requirements specified in subdivisions (d)(1)(i) and (ii) of this subparagraph below are met.

(i) Notify the Director that the unit meets these criteria.

(ii) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(2) Reserved.

(3) Municipal waste combustion units. Incineration units that are subject to 40 CFR 60, Subpart Ea (Standards of Performance for Municipal Waste Combustors); 40 CFR 60, Subpart Eb (Standards of Performance for Large Municipal Waste Combustors); 40 CFR 60, Subpart Cb (Emission Guidelines and Compliance Time for Large Municipal Combustors); 40 CFR 60, Subpart AAAA (Standards of Performance for Small Municipal Waste Combustion Units); or 40 CFR 60, Subpart BBBB (Emission Guidelines for Small Municipal Waste Combustion Units).

(4) Medical waste incineration units. Incineration units regulated under 40 CFR 60, Subpart Ec incorporated by reference in Part 13.2 Subpart Ec (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or Part 5.4 [Incineration of

Hospital/Medical/Infectious Waste].

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

(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 submits a request to the Director for a determination that the qualifying small power production facility is combusting homogenous waste.

(iv) The owner or operator maintains records specified in paragraph 5.5.11(v) of this Part

(6) Cogeneration facilities. Units that meet the three requirements specified in subdivisions (d)(6)(i) through (iii) of this subparagraph below.

(i) The unit qualifies as a cogeneration facility under Section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(ii) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(iii) The owner or operator submits a request to the Director for a determination that the qualifying cogeneration facility is combusting homogenous waste.

(iv) The owner or operator maintains records specified in paragraph 5.5.11(w) of this Part.

(7) Hazardous waste combustion units. Units that are

required to get a permit under section 3005 of the Solid Waste Disposal Act.

(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 subdivisions (d)(9)(i) through (iii) of this subparagraph below are only required to meet the requirements under "Air Curtain Incinerators" (Section 5.5.13 of this Part).

(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) Reserved.

(11) Reserved.

(12) Reserved.

(13) Sewage treatment plants. Incineration units regulated under 40 CFR 60, Subpart O as incorporated in Part 13.2 Subpart O (Standards of Performance for Sewage Treatment Plants).

(14) Reserved.

(15) Reserved.

(16) Sewage sludge incineration units. Incineration units combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter that are subject to subpart LLLL of 40 CFR 60 as incorporated in Part 13.2 Subpart LLLL (Standards of Performance for Sewage Sludge Incineration Units) or subpart MMMM of 40 CFR 60 (Emission Guidelines for Sewage Sludge Incineration Units).

(17) Other solid waste incineration units. Incineration units that are subject to subpart EEEE of 40 CFR 60 (Standards of Performance for Other Solid

Waste Incineration Units) or subpart FFFF of 40 CFR 60 (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

5.5.3 Increments of Progress.

(a) For owners or operators planning to achieve compliance more than one year following the effective date of EPA's approval of ADEM admin. Code R. 335-3-3-.05 the two increments of progress specified in subparagraphs (a)(1) and (2) of this paragraph below shall be met.

(1) Submit a final control plan to the Director no later than one year after the effective date of EPA's approval of ADEM admin. Code R. 335-3-3-.05.

(2) Achieve final compliance no later than December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999, or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010.

(b) The owner or operator shall submit to the Director, notifications for achieving increments of progress. The notifications shall be postmarked no later than 10 business days after the compliance date for the increment. These notifications shall include the three items specified in subparagraphs (b)(1) through (3) of this paragraph below:

(1) Notification that the increment of progress has been achieved.

(2) Any items required to be submitted with each increment of progress.

(3) Signature of the owner or operator of the CISWI unit.

(c) If an owner or operator fails to meet an increment of progress, a notification to the Director shall be submitted and postmarked within 10 business days after the date for that increment of progress in 5.5.3(a) above. The owner or operator shall inform the Director that the increment was not met, and reports shall be submitted each subsequent calendar month until the

increment of progress is met.

(d) For the control plan increment of progress, the owner or operator shall satisfy the two requirements specified in subparagraphs (d)(1) and (2) of this paragraph below.

(1) Submit the final control plan that includes the five items described in subdivisions (d)(1)(i) through (v) of this subparagraph below.

(i) A description of the devices for air pollution control and process changes that will be used to comply with the emission limitations and other requirements of this Part.

(ii) The type(s) of waste to be burned.

(iii) The maximum design waste burning capacity.

(iv) The anticipated maximum charge rate.

(v) If applicable, the petition for site-specific operating limits under 5.5.6(c) of this Part.

(2) Maintain an onsite copy of the final control plan.

(e) For the final compliance increment of progress, the owner or operator shall complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected CISWI unit is brought online, all necessary process changes and air pollution control devices would operate as designed.

(f) Closing and restarting a CISWI unit.

(1) If the CISWI unit is closed but will be restarted prior to the final compliance date of December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999, or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010, the owner or operator shall meet the increments of progress specified in paragraph (a) of

this Section.

(2) If the CISWI unit is closed but will be restarted after the final compliance date of December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999, or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010, the owner or operator shall complete emission control retrofits and meet the emission limitations and operating limits on the date the unit restarts operation.

(g) Permanent closure of a CISWI unit. If the owner or operator plans to close the CISWI unit rather than comply with this Part, submit a closure notification, including the date of closure, to the Director within 90 days after EPA approval of ADEM admin. Code R. 335-3-3-.05.

5.5.4 Waste Management Plan.

(a) A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

(b) A waste management plan shall be submitted no later than the date specified in 5.5.3(a)(1) of this Part for submittal of the final control plan.

(c) A waste management plan shall include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan shall identify any additional waste management measures, and the source shall implement those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

5.5.5 Operator Training and Qualification.

(a) No CISWI unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, the procedures in paragraph (h) of this section below shall be followed.

(b) Operator training and qualification shall be obtained through a State-approved program that meets the requirements included in paragraph (c) of this section below. Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under subparagraph (c)(2) of this section below.

(c) Training shall be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in subparagraphs (c)(1) through (3) of this paragraph below.

(1) Training on the eleven subjects listed in subdivisions (c)(1)(i) through (xi) of this subparagraph below.

(i) Environmental concerns, including types of emissions.

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

(iii) Operation of the specific 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) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Actions to prevent and correct malfunctions or conditions that may lead to malfunction.

(viii) Bottom and fly ash characteristics and handling procedures.

(ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(x) Pollution prevention.

(xi) Waste management practices.

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

(3) Written material covering the training course topics that can serve as reference material following completion of the course.

(d) The operator training course shall be completed by the later of the three dates specified in subparagraphs (d)(1) through (3) of this paragraph below.

(1) The final compliance date of December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999, or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010.

(2) Six months after CISWI unit startup.

(3) Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.

(e) To maintain qualification, the operator shall complete an annual review or refresher course covering, at a minimum, the five topics described in subparagraphs (e)(1) through (5) of this paragraph below.

(1) Update of regulations.

(2) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(3) Inspection and maintenance.

(4) Prevention and correction of malfunctions or conditions that may lead to malfunction.

(5) Discussion of operating problems encountered by attendees.

(f) A lapsed operator qualification shall be renewed by one of the two methods specified in subparagraphs (f)(1) and (2) of this paragraph below.

(1) For a lapse of less than 3 years, the operator shall complete a standard annual refresher course described in paragraph (e) of this section above.

(2) For a lapse of 3 years or more, the operator shall repeat the initial qualification requirements in paragraphs (b) and (c) of this section above.

(g) Requirements for site specific documentation.

(1) Site specific documentation shall be available at the facility and readily accessible for all CISWI unit operators that addresses the ten topics described in subdivisions (g)(1)(i) through (x) of this subparagraph below. The owner or operator shall maintain this information and the training records required by subparagraph (g)(3) of this paragraph below in a manner that they can be readily accessed and are suitable for inspection upon request.

(i) Summary of the applicable standards under this Part.

(ii) Procedures for receiving, handling, and charging waste.

(iii) Incinerator startup, shutdown, and malfunction procedures.

(iv) Procedures for maintaining proper combustion air supply levels.

(v) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this Part.

(vi) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(vii) Reporting and recordkeeping procedures.

(viii) The waste management plan required under section 5.5.4 of this Part.

(ix) Procedures for handling ash.

(x) A list of the wastes burned during the performance test.

(2) The owner or operator shall establish a program for reviewing the information listed in subparagraph (g)(1) of this paragraph above with each incinerator operator.

(i) The initial review of the information listed in subparagraph (g)(1) of this paragraph shall be conducted by the later of the three dates specified in subdivisions (g)(2)(i)(A) through (C) of this subparagraph below.

(A) The final compliance date of December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999, or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010.

(B) Six months after CISWI unit startup.

(C) Six months after being assigned to operate the CISWI unit.

(ii) Subsequent annual reviews of the information listed in subparagraph (g)(1) of this paragraph shall be conducted no later than 12 months following the previous review.

(3) The owner or operator shall also maintain the information specified in subdivisions (g)(3)(i) through (iii) below.

(i) Records showing the names of CISWI unit operators who have completed review of the information in subparagraph (g)(1) of this paragraph above as required by subparagraph (g)(2) of this paragraph, including the date of the initial review and all subsequent annual reviews.

(ii) Records showing the names of the CISWI operators who have completed the operator training requirements under this paragraph, met the criteria for qualification under paragraphs (a), (b) and (c) of this section, and maintained or renewed their qualification under paragraphs (e) or (f) of this section, respectively. Records shall include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(iii) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(h) If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), the owner or operator shall meet one of the two criteria specified in subparagraphs (h)(1) and (2) of this paragraph below, depending on the length of time that a qualified operator is not accessible.

(1) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in subparagraph (g)(1) of this section within the past 12 months. However, the period when all qualified operators were not accessible shall be recorded and this deviation included in the annual report as specified under section 5.5.11 of this Part.

(2) When all qualified operators are not accessible for 2 weeks or more, the two actions that are

described in subdivisions (h)(2)(i) and (ii) of this subparagraph below shall be taken.

(i) Notify the Director of this deviation in writing within 10 days. In the notice, state what caused this deviation, what actions are being taken to ensure that a qualified operator is accessible, and when it is expected that a qualified operator will be accessible.

(ii) Submit a status report to the Administrator every 4 weeks outlining what actions are being taken to ensure that a qualified operator is accessible, stating when it is expected that a qualified operator will be accessible and requesting approval from the Administrator to continue operation of the CISWI unit. The first status report shall be submitted 4 weeks after notification to the Director of the deviation under subdivision (h)(2)(i). If the Administrator notifies the owner or operator that the request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then shall cease operation. Operation of the unit may resume if the two requirements in subdivisions (h)(2)(ii)(A) and (B) of this subparagraph below are met.

(A) A qualified operator is accessible as required under paragraph (a) of this section.

(B) The owner or operator notifies the Administrator that a qualified operator is accessible and operation is resuming.

5.5.6 Emission Limitations and Operating Limits.

(a) The owner or operator shall meet the emission limitations for each CISWI unit, including bypass stack or vent, specified in Table 1 of this Part or tables 5 through 8 of this Part by the final compliance date of December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999, or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010, as applicable. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown,

or malfunction.

(1) Units that do not use wet scrubbers shall maintain opacity to less than equal to the percent opacity (three 1-hour blocks consisting of ten 6-minute average opacity values) specified in table 1 of this Part, as applicable.

(b) Timelines for Operating Limits.

(1) If a wet scrubber(s) is used to comply with the emission limitations, the owner or operator shall establish operating limits for up to four operating parameters (as specified in Table 2 of this Part) as described in subdivisions (b)(1)(i) through (iv) of this subparagraph during the initial performance test.

(i) Maximum charge rate, calculated using one of the two different procedures in subdivisions (b)(1)(i)(A) or (B) of this subparagraph, as appropriate.

(A) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(B) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(ii) Minimum pressure drop across the wet particulate matter scrubber, which is calculated as the lowest 1-hour average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the lowest 1-hour average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(iii) Minimum scrubber liquid flow rate, which is calculated as the lowest 1-hour average liquid flow rate at the inlet to the wet acid gas or particulate matter scrubber measured during the most recent performance test demonstrating compliance with all

applicable emission limitations.

(iv) Minimum scrubber liquor pH, which is calculated as the lowest 1-hour average liquor pH at the inlet to the wet acid gas scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.

(2) The owner or operator shall meet the operating limits established during the initial performance test on the date the initial performance test is required or completed (whichever is earlier). The owner or operator shall conduct an initial performance evaluation of each continuous monitoring system and continuous parameter monitoring system within 60 days of installation of the monitoring system.

(3) If the owner or operator uses a fabric filter to comply with the emission limitations, each fabric filter system shall be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(4) If the owner or operator uses an electrostatic precipitator to comply with the emission limitations, the owner or operator shall measure the (secondary) voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average electric power value (secondary voltage x secondary current = secondary electric power) for each test run. The operating limit for the electrostatic precipitator is calculated as the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(5) If the owner or operator uses an activated

carbon sorbent injection to comply with the emission limitations, the owner or operator shall measure the sorbent flow rate during the performance testing. The operating limit for the carbon sorbent injection is calculated as the lowest 1-hour average sorbent flow rate measured during the most recent performance test demonstrating compliance with the mercury emission limitations. For energy recovery units, when the unit operates at lower loads, multiply the sorbent injection rate by the load fraction, as defined in this Part, to determine the required injection rate (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5).

(6) If the owner or operator uses selective noncatalytic reduction to comply with the emission limitations, the owner or operator shall measure the charge rate, the secondary chamber temperature (if applicable to the CISWI unit), and the reagent flow rate during the nitrogen oxides performance testing. The operating limits for the selective noncatalytic reduction are calculated as the highest 1-hour average charge rate, lowest secondary chamber temperature, and lowest reagent flow rate measured during the most recent performance test demonstrating compliance with the nitrogen oxides emission limitations.

(7) If the owner or operator uses a dry scrubber to comply with the emission limitations, the owner or operator shall measure the injection rate of each sorbent during the performance testing. The operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate of each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations. For energy recovery units, when the unit operates at lower loads, multiply the sorbent injection rate by the load fraction, as defined in this Part, to determine the required injection rate (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5).

(8) If the owner or operator does not use a wet scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitation, and if the owner or operator does not determine compliance with the

particulate matter emission limitation with a particulate matter CEMS, the owner or operator shall maintain opacity to less than or equal to ten percent opacity (1-hour block average).

(9) If the owner or operator uses a PM CPMS to demonstrate compliance, the owner or operator shall establish a PM CPMS operating limit and determine compliance with it according to subdivisions (b)(9)((i) through (v) of this subparagraph below.

(i) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record all hourly average output values (milliamps) from the PM CPMS for the periods corresponding to the test runs (e.g., three 1-hour average PM CPMS output values for three 1-hour test runs).

(A) The owner or operator's PM CPMS shall provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements shall be determined in units of milliamps.

(B) The owner or operator's PM CPMS operating range shall be capable of reading PM concentrations from zero to a level equivalent to at least two times the allowable emission limit. If the owner or operator's PM CPMS is an auto ranging instrument capable of multiple scales, the primary range of the instrument shall be capable of reading PM concentrations from zero to a level equivalent to two times the allowable emission limit.

(C) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all the PM CPMS output values for three corresponding 2-hour Method 51 test runs).

(ii) If the average of the three PM performance test runs are below 75% of the PM emission limit, the owner or operator shall calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument

zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in subdivisions (b)(9)(i) through (v) of this subparagraph.

(A) Determine the instrument zero output with one of the following procedures:

I. Zero point data for *in-situ* instruments shall be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

II. Zero point data for extractive instruments shall be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

III. The zero point can also be obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when the process is not operating, but the fans are operating or the source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

IV. If none of the steps in subdivisions (b)(9)(ii)(A) through (D) of this subparagraph are possible, the owner or operator shall use a zero output value provided by the manufacturer.

(B) Determine the PM CPMS instrument average in milliamps, and the average of the corresponding three PM compliance test runs, using Equation 1 below:

$$\text{(Eq. 1)} \quad \bar{x} = 1/n \sum_{i=1}^{n} X_1 \,, \quad \bar{y} = 1/n \sum_{i=1}^{n} Y_1$$

Where:

X_1 = the PM CPMS data points for the three runs constituting the performance test;

Y_1 = the PM concentration value for the three runs constituting the performance test; and

n = the number of data points.

(C) With the instrument zero expressed in milliamps, the three run average PM CPMS milliamp value, and the three run average PM concentration from the three compliance tests, determine a relationship of lb/Mmbtu per milliamp with Equation 2 below:

$$\text{(Eq. 2)} \quad R = Y_1/(X_1 - z)$$

Where:

R = the relative mg/dscm per milliamp for the PM CPMS;

Y_1= the three run average mg/dscm PM concentration;

X_1 = the three run average milliamp output from the PM CPMS; and

z = the milliamp equivalent of the instrument zero determined from subdivision (b)(9)(ii)(A) of this subparagraph.

(D) Determine the source specific 30-day rolling average operating limit using the mg/dscm per milliamp value from Equation 2 in Equation 3, below. This sets the operating limit at the PM CPMS output value corresponding to 75% of the emission limit.

$$\text{(Eq. 3)} \quad O_1 = z + 0.75(L)/R$$

Where:

O1 = the operating limit for the PM CPMS on a 30-day rolling average, in milliamps;

L = the source emission limit expressed in lb/Mmbtu;

z = the instrument zero in milliamps, determined from subdivision(b)(9)(ii)(A) of this subparagraph; and

R = the relative mg/dscm per milliamp for the PM CPMS, from Equation 2 of this Part.

(iii) If the average of the three PM compliance test runs is at or above 75% of the PM emission limit the owner or operator shall determine the operating limit by averaging the PM CPMS milliamp output corresponding to the three PM performance test runs that demonstrate compliance with the emission limit using Equation 4 and shall submit all compliance test and PM CPMS data according to the reporting requirements in subdivision (b)(9)(v) of this paragraph.

$$\text{(Eq. 4)} \quad O_h = 1/n \sum_{i=1}^{n} X_1$$

Where:

X_1 = the PM CPMS data points for all runs i;

n = the number of data points; and

O_h = the site specific operating limit, in milliamps.

(iv) To determine continuous compliance, the owner or operator shall record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The owner or operator shall demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (e.g., milliamps, PM concentration, raw data signal) on a 30-day rolling average basis.

(v) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report shall also include the make and model of the PM CPMS instrument, serial number

of the instrument, analytical principle of the instrument (e.g., beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

(c) If the owner or operator uses an air pollution control device other than a wet scrubber, activated carbon injection, selective non-catalytic reduction, fabric filter, an electrostatic precipitator, or a dry scrubber or limits emissions in some other manner, including mass balances, to comply with the emission limitations under paragraph (a) of this section, the owner or operator shall petition the Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall submit the petition at least sixty days before the performance test is scheduled to begin. The petition shall include the five items listed in subparagraphs (c)(1) through (5) of this paragraph below.

(1) Identification of the specific parameters the owner or operator proposes to use as additional operating limits.

(2) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(3) A discussion of how the owner or operator will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(4) A discussion identifying the methods the owner or operator will use to measure and the instruments that will be used to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(5) A discussion identifying the frequency and methods for recalibrating the instruments that will be used for monitoring these parameters.

(d) Affirmative defense for violation of emission standards during malfunction.

(1) In response to an action to enforce the standards set forth in paragraph 5.5.6(a) of this Part, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 60.2. Appropriate penalties may be assessed if the burden of proving all of the requirements in the affirmative defense are not met. The affirmative defense shall not be available for claims for injunctive relief.

(i) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, the owner or operator shall timely meet the reporting requirements in subdivision (d)(1)(ii) of this paragraph below, and shall prove by a preponderance of evidence that:

(A) The violation:

I. Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

II. Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

III. Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

IV. Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(B) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(C) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(D) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(E) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(F) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(G) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(H) At all times, the affected CISWI unit was operated in a manner consistent with good practices for minimizing emissions; and

(I) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(ii) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in subdivision 5.5.6(d)(1)(i) of this paragraph. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included

in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

5.5.7 Performance Testing.

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

(b) The owner or operator shall document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in section 5.5.11 of this Part) and the types of waste burned during the performance test.

(c) All performance tests shall be conducted using the minimum run duration specified in Table 1 of this Part.

(d) Method 1 of Appendix A, 40 CFR 60 shall be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of Appendix A, 40 CFR 60 shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of Appendix A, 40 CFR 60 shall be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, shall be adjusted to 7 percent oxygen using Equation 1 of this Part:

(Eq. 5) $$C_{adj} = C_{meas}(20.9-7)/(20.9-\%O_2)$$

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.

(g) The owner or operator shall determine dioxins/furans toxic equivalency by following the procedures in subparagraphs (g)(1) through (3) of this paragraph below.

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

(2) Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. The owner or operator shall quantify the isomers per Section 9.0 of Method 23. (Note: the owner or operator may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5).

(3) For each dioxin/furan (tetra- through octa-chlorinated) isomer measured in accordance with subparagraphs (g)(1) and (g)(2) of this paragraph above, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 3 of this Part.

(4) Sum the products calculated in accordance with subparagraph (g)(3) of this paragraph above to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(h) Method 22 at 40 CFR part 60, appendix A-7 shall be used to determine compliance with the fugitive ash emission limit in Table 1 of this Part or Tables 5 through 8 of this Part.

(i) If the owner or operator has an applicable opacity operating limit, the owner or operator shall determine compliance with the opacity limit using Method 9 at 40 CFR part 60, appendix A-4, based on three 1-hour blocks consisting of ten 6-minute average opacity values, unless the owner or operator is required to install a continuous opacity monitoring system, consistent with Sections 5.5.9 and 5.5.10.

(j) The owner or operator shall determine dioxins/furans total mass basis by following the procedures in subparagraphs (j)(1) through (3) of this paragraph below.

(1) Measure the concentration of each dioxin/furan tetra- through octa-chlorinated isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A-7.

(2) Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. The owner or operator shall quantify the isomers per Section 9.0 of Method 23. (Note: The owner or operator may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5).

(3) Sum the quantities measured in accordance with subparagraphs (j)(1) and (2) of this paragraph to obtain the total concentration of dioxins/furans emitted in terms of total mass basis.

(k) The results of performance tests are used to demonstrate compliance with the emission limitations in Table 1 or Tables 5 through 8 of this Part.

5.5.8 Initial Compliance Requirements.

(a) The owner or operator shall conduct an initial performance test, as required under Sections 5.5.6 and 5.5.7 of this Part, to determine compliance with the emission limitations in Table 1 and Tables 5 through 8 of this Part, to establish compliance with any opacity operating limits in paragraph 5.5.6(b) of this Part, and to establish operating limits using the procedures in paragraphs 5.5.6(b) or 5.5.6(c) of this Part. The performance test shall be conducted using the test methods listed in Table 1 and Tables 5 through 8 of this Part and the procedures in 5.5.7 of this Part. The use of the bypass stack during a performance test shall invalidate the performance test. The owner or operator shall conduct a performance evaluation of each continuous

monitoring system within 60_days of installation of the monitoring system.

(b) The initial performance test shall be conducted no later than 180 days after the final compliance date. The final compliance date is specified in subparagraph 5.5.3(a)(2) of this Part.

(c) If the owner or operator commences or recommences combusting a solid waste at an existing combustion unit at any commercial or industrial facility and conducted a test consistent with the provisions of this Part while combusting the given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, retesting is not needed until 6 months from the date the solid waste is reintroduced.

(d) If the owner or operator commences combusting or recommences combusting a solid waste at an existing combustion unit at any commercial or industrial facility and has not conducted a performance test consistent with the provisions of this Part while combusting the given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, the owner or operator shall conduct a performance test within 60 days commencing or recommencing solid waste combustion.

(e) The initial air pollution control device inspection shall be conducted within 60 days after installation of the control device and the associated CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the final compliance date for meeting the amended emission limitations.

(f) Within 10 operating days following an air pollution control device inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Director establishing a date whereby all necessary repairs of the designated facility shall be completed.

5.5.9 Continuous Compliance Requirements.

(a) Compliance with standards.

(1) The emission standards and operating requirements set forth in this Part apply at all times.

(2) If the combusting of solid waste is ceased the owner or operator may opt to remain subject to the provisions of this Part. Consistent with the definition of CISWI unit, the owner or operator is subject to the requirements of this Part at least 6 months following the last date of solid waste combustion. Solid waste combustion is ceased when sold waste is not in the combustion chamber (i.e., the solid waste feed to the combustor has been cut off for a period of time not less than the solid waste residence time).

(3) If the combusting of solid waste is ceased the owner or operator shall be in compliance with any newly applicable standards on the effective date of the waste-to-fuel switch. The effective date of the waste-to-fuel switch is a date selected by the owner or operator, that shall be at least 6 months from the date that combusting solid waste is ceased, consistent with subparagraph (a)(2) of this paragraph above. The source shall remain in compliance with this Part until the effective date of the waste-to-fuel switch.

(4) Any owner or operator of an existing commercial or industrial combustion unit that combusted a fuel or no-waste material, and commences or recommences combustion of solid waste, the owner or operator is subject to the provisions of this Part as of the first day solid waste is introduced or reintroduced to the combustion chamber, and this date constitutes the effective date of the fuel-to-waste switch. The owner or operator shall complete all initial compliance demonstrations for any Section 112 standards that are applicable to the facility before commencing or recommencing combustion of solid waste. The owner or operator shall provide 30 days prior notice of the effective date of the waste-to-fuel switch. The notification shall identify:

(i) The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

(ii) The currently applicable subcategory under

this Part, and any 40 CFR part 63 subpart and subcategory that will be applicable after the combusting of solid waste is ceased;

(iii) The fuel(s), non-waste material(s) and solid waste(s) the CISWI unit is currently combusting and has combusted over the past 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

(iv) The date on which the unit became subject to the currently applicable emission limits;

(v) The date upon which combusting solid waste is ceased, and the date (if different) that any new requirements to become applicable (i.e., the effective date of the waste-to-fuel switch), consistent with subparagraphs 5.5.9(a)(2) and (3) of this paragraph.

(5) All air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of combusting solid waste shall be installed and operational as of the effective date of the waste-to-fuel, or fuel-to- waste switch.

(6) All monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of combusting solid waste shall be installed and operational as of the effective date of the waste-to-fuel, or fuel-to- waste switch. All calibration and drift checks shall be performed as of the effective date of the waste-to-fuel, or fuel-to waste switch. Relative accuracy tests shall be performed as of the performance test deadline for PM CEMS (if PM CEMS are elected to demonstrate continuous compliance with the particulate matter emission limits). Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with section 112 monitoring requirements or monitoring requirements under this Part.

(b) The owner or operator shall conduct an annual performance test for the pollutants listed in Table 1 or Tables 5 through 8 of this Part and opacity for

each CISWI unit as required under Section 5.5.7 of this Part. The annual performance test shall be conducted using the test methods listed in Table 1 or Tables 5 through 8 of this Part and the procedures in Section 5.5.7 of this Part. Opacity shall be measured using EPA Reference Method 9 at 40 CFR part 60. Annual performance tests are not required if the owner or operator uses CEMS or continuous opacity monitoring systems to determine compliance.

(c) The owner or operator shall continuously monitor the operating parameters specified in ~~sub~~paragraph 5.5.6(b) or established under paragraph 5.5.6(c) of this Part, and as specified in paragraph 5.5.10(d) of this Part. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour block average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under paragraph 5.5.6(c) of this Part or, for energy recovery units, where the averaging time for each operating parameter is a 30-day rolling, calculated each hour as the average of the previous 720 operating hours. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph 5.5.9(a) of this Section constitutes a deviation from the operating limits established under this Part, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or re-established during performance tests.

(d) The owner or operator shall ~~only~~ burn only the same types of waste and fuels used to establish subcategory applicability (for ERUs) and operating limits during the performance test.

(e) For energy recovery units, incinerators, and small remote units, the owner or operator shall perform annual visual emissions test for ash handling.

(f) For energy recovery units, the owner or operator shall conduct an annual performance test for opacity using EPA Reference Method 9 at 40 CFR part 60

(except where particulate matter continuous monitoring system or continuous parameter monitoring systems are used) and the pollutants listed in Table 6 of this Part.

(g) For facilities using a CEMS to demonstrate compliance with the carbon monoxide emission limit, compliance with the carbon monoxide emission limit may be demonstrated by using the CEMS according to the following requirements:

(1) The owner or operator shall measure emissions according to §60.13 to calculate 1-hour arithmetic averages corrected to 7 percent oxygen. CEMS data during startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The owner or operator shall demonstrate initial compliance with the carbon monoxide emissions limit using a 30-day rolling average of the 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown as defined in this Part, calculated using equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7.

(2) Operate the carbon monoxide continuous emissions monitoring system in accordance with the applicable requirements of performance specification 4A of appendix B and the quality assurance procedures of appendix F of 40 CFR part 60.

(h) Coal and liquid/gas energy recovery units with annual average heat input rates greater than 250 MMBtu/hr may elect to demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter CEMS according to the procedures in subparagraph 5.5.10(n) of this Part, instead of the continuous parameter monitoring system specified in subparagraph 5.5.9(i) of this paragraph. Coal and liquid/gas energy recovery units with annual average heat input rates less than 250 MMBtu/hr, incinerators, and small remote incinerators may also elect to demonstrate compliance using a particulate matter CEMS according to the procedures in paragraph 5.5.10(n) of this Part, instead of particulate matter testing with EPA Method 5 at 40 CFR part 60, appendix A-3 and, if applicable, the continuous opacity monitoring

requirements in paragraph 5.5.9(i) of this Section.

(i) For energy recovery units with annual average heat input rates greater than or equal to 10 MMBTU/hour but less than 250 MMBtu/hr the owner or operator shall install, operate, certify and maintain a continuous opacity monitoring system (COMS) according to the procedures in Section 5.5.10 of this Part.

(j) For waste-burning kilns, the owner or operator shall conduct an annual performance test for the pollutants (except mercury and particulate matter, and hydrogen chloride if no acid gas wet scrubber is used) listed in Table 7 of this Part. If the waste-burning kiln is not equipped with a wet scrubber or dry scrubber, the owner or operator shall determine compliance with the hydrogen chloride emission limit using a CEMS as specified in Section 5.5.10 of this Part. The owner or operator shall determine compliance with particulate matter using CPMS. The owner or operator shall determine compliance with the mercury emissions limit using a mercury CEMS according to the following requirements:

(1) Operate a CEMS in accordance with performance specification 12A at 40 CFR part 60, appendix B or a sorbent trap based integrated monitor in accordance with performance specification 12B at 40 CFR part 60, appendix B. The duration of the performance test shall be a calendar month. For each calendar month in which the waste-burning kiln operates, hourly mercury concentration data and stack gas volumetric flow rate data shall be obtained. The owner or operator shall demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these 1-hour mercury concentrations, including CEMS data during startup and shutdown as defined in this Part, calculated using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7. CEMS data during startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

(2) Owners or operators using a mercury continuous emissions monitoring systems

shall install, operate, calibrate and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A at 40 CFR part 60, appendix B and quality assurance procedure 5 at 40 CFR part 60, appendix F.

(3) The owner or operator of a waste-burning kiln shall demonstrate initial compliance by operating a mercury CEMS while the raw mill of the in-line kiln/raw mill is operating under normal conditions and including at least one period when the raw mill is off.

(k) If the owner or operators uses an air pollution control device to meet the emission limitations in this Part, an initial and annual inspection of the air pollution control device shall be conducted. The inspection shall include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Develop a site-specific monitoring plan according to the requirements in paragraph 5.5.9(l) of this Section. This requirement also applies if the owner or operator petition the Administrator for alternative monitoring parameters under §60.13(i) of 40 CFR part 60.

(l) For each CMS required in this paragraph, the owner or operator shall develop and submit to the Administrator for approval a site-specific monitoring plan according to the requirements of this paragraph (l) that addresses subdivisions 5.5.9(l)(1)(i) through (vi) of this paragraph.

(1) The owner or operator shall submit this site-specific monitoring plan at least 60 days before the initial performance evaluation of the continuous monitoring system.

(i) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the

measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §60.11(d).

(v) Ongoing data quality assurance procedures in accordance with the general requirements of §60.13.

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §60.7(b), (c), (c)(1), (c)(4), (d), (e), (f) and (g).

(2) The owner or operator shall conduct a performance evaluation of each continuous monitoring system in accordance with the site-specific monitoring plan.

(3) The owner or operator shall operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(m) If the owner or operator has an operating limit that requires the use of a flow monitoring system, the owner or operator shall meet the requirements in paragraph 5.5.9(l) and subparagraphs 5.5.9(m)(1) through (4) of this paragraph.

(1) Install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity at full scale of no greater than 2 percent.

(3) Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow monitoring system performance evaluation in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(n) If the owner or operator has an operating limit that requires the use of a pressure monitoring system, the owner or operator shall meet the requirements in paragraph 5.5.9(l) and subparagraphs 5.5.9(n)(1) through (6) of this paragraph.

(1) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (e.g., PM scrubber pressure drop).

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(4) Perform checks at the frequency outlined in the site-specific monitoring plan to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily).

(5) Conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(6) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in the monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(o) If the owner or operator has an operating limit that requires a pH monitoring system, the owner or operator shall meet the requirements in paragraph 5.5.9(l) and subparagraphs 5.5.9(o)(1) through (4) of this paragraph.

(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Conduct a performance evaluation of the pH monitoring system in accordance with the monitoring plan at least once each process operating day.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than quarterly.

(p) If the owner or operator has an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, the owner or operator shall meet the requirements in paragraph 5.5.9(l) and subparagraphs 5.5.9(p)(1) through (2) of this paragraph.

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

(2) Conduct a performance evaluation of the electric power monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(q) If the owner or operator has an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), the owner or operator shall meet the requirements in paragraph 5.5.9(l) and subparagraphs 5.5.9(q)(1) though (2) of

this paragraph.

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequent than annually.

(r) If the owner or operator elect to use a fabric filter bag leak detection system to comply with the requirements of this Part, the owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraph 5.5.9(l) and subparagraphs 5.5.9(r)(1) though (5) of this paragraph.

(1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(3) Conduct a performance evaluation of the bag leak detection system in accordance with the monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see §60.17).

(4) Use a bag leak detection system equipped with a device to continuously record the output signal from the sensor.

(5) Use a bag leak detection system equipped with a system that will sound an alarm when an increase in relative particulate matter emissions over a preset level is detected. The alarm shall be located where it is observed readily by plant operating personnel.

(s) For facilities using a CEMS to demonstrate compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the CEMS specified in Section 5.5.10 of this Part to measure sulfur dioxide. CEMS data during startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The owner or operator shall calculate a 30-day rolling average of the 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown as defined in this Part, using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7. The sulfur dioxide CEMS shall be operated according to performance specification 2 in appendix B of 40 CFR part 60 and shall follow the procedures and methods specified in this subparagraph. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide CEMS should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the CEMS, whichever is greater.

(1) During each relative accuracy test run of the CEMS required by performance specification 2 in appendix B of 40 CFR part 60, collect sulfur dioxide and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60- minute period) with both the CEMS and the test methods specified in subdivisions 5.5.9(s)(1)(i) and (ii) of this subparagraph.

(i) For sulfur dioxide, EPA Reference Method 6 or 6C, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §60.17) shall be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §60.17), as applicable, shall be used.

(2) The span value of the CEMS at the inlet to the sulfur dioxide control device shall be 125

percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this Part. The span value of the CEMS at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this Part.

(3) Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with procedure 1 in appendix F of 40 CFR part 60.

(t) For facilities using a CEMS to demonstrate continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the CEMS specified in Section 5.5.10 to measure nitrogen oxides. CEMS data during startup and shutdown as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The owner or operator shall calculate a 30-day rolling average of the 1-hour arithmetic average emission concentration using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7. The nitrogen oxides CEMS shall be operated according to performance specification 2 in appendix B of 40 CFR part 60 and shall follow the procedures and methods specified in subparagraphs 5.5.9(t)(1) through (5) of this paragraph.

(1) During each relative accuracy test run of the CEMS required by performance specification 2 of appendix B of 40 CFR part 60, collect nitrogen oxides and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60-minute period) with both the CEMS and the test methods specified in subdivisions 5.5.9(t)(1)(i) and (ii) of this subparagraph.

(i) For nitrogen oxides, EPA Reference Method 7 or 7E at 40 CFR part 60, appendix A-4 shall be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §60.17), as applicable, shall be used.

(2) The span value of the CEMS shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of unit.

(3) Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with procedure 1 in appendix F of 40 CFR part 60.

(4) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluents corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in subdivisions 5.5.9(t)(4)(i) though (iv) of this subparagraph below. This relationship may be reestablished during performance compliance tests.

(i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A, 3B, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §60.17), as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples shall be taken for at least 30 minutes in each hour.

(iii) Each sample shall represent a 1-hour average.

(iv) A minimum of 3 runs shall be performed.

(u) For facilities using a continuous emissions monitoring system to demonstrate continuous compliance with any of the emission limits of this Part, the owner or operator shall complete the following:

(1) Demonstrate compliance with the appropriate emission limit(s) using a 30-day rolling average of

1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, as defined in this Part, calculated using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7. CEMS data during startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

(2) Operate all CEMS in accordance with the applicable procedures under appendices B and F of 40 CFR part 60.

(v) Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd, Hg, NOx, SO2, and dioxin/furans.

(w) For energy recovery units with a design heat input capacity of 100 MMBtu per hour or greater that do not use a carbon monoxide CEMS, the owner or operator shall install, operate, and maintain an oxygen analyzer system as defined in Section 5.5.1 of this Part according to the procedures in subparagraphs 5.5.9(w)(1) through (4) below.

(1) The oxygen analyzer system shall be installed by the initial performance test date specified in paragraph 5.5.6(b) of this Part.

(2) The owner or operator shall operate the oxygen trim system within compliance with subparagraph 5.5.9(w)(3) of this paragraph below at all times.

(3) The owner or operator shall maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test.

(4) The owner or operator shall calculate and record a 30-day rolling average oxygen concentration using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 of Appendix A-7 of 40 CFR part 60.

(x) For energy recovery units with annual

average heat input rates greater than or equal to 250 MMBtu/hour and waste-burning kilns, the owner or operator shall install, calibrate, maintain, and operate a PM CPMS and record the output of the system as specified in subparagraphs 5.5.9(x)(1) through (8) of this paragraph below. For other energy recovery units, the owner or operator may elect to use PM CPMS operated in accordance with this paragraph. PM CPMS are suitable in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(1) Install, calibrate, operate, and maintain the PM CPMS according to the procedures in the approved site-specific monitoring plan developed in accordance with paragraph 5.5.9(l) and subdivisions 5.5.9(x)(1)(i) through (iii) of this paragraph.

(i) The operating principle of the PM CPMS shall be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation of the exhaust gas or representative sample. The reportable measurement output from the PM CPMS shall be expressed as milliamps.

(ii) The PM CPMS shall have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS shall be capable of detecting and responding to particulate matter concentrations of no greater than 0.5 mg/actual cubic meter.

(2) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, the owner or operator shall adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in paragraph 5.5.6(b) of this Part.

(3) Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours. Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output collected during all energy recovery unit or waste- burning kiln operating hours data (milliamps).

(5) The owner or operator shall collect data using the PM CPMS at all times the energy recovery unit or waste-burning kiln is operating and at the intervals specified in subdivision 5.5.9(x)(1)(ii) of this paragraph, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in the site-specific monitoring plan.

(6) The owner or operator shall use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing the compliance with the operating limit except:

(i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in the annual deviation report);

(ii) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods are not used in calculations (report emissions or operating levels and report any such periods in the annual deviation report);

(iii) Any PM CPMS data recorded during

periods of CEMS data during startup and shutdown, as defined in this Part.

(7) The owner or operator shall record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with the site-specific monitoring plan.

(8) For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, the owner or operator shall:

(i) Within 48 hours of the deviation, visually inspect the air pollution control device;

(ii) If inspection of the air pollution control device identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(iii) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify. Within 45 days of the deviation, the owner or operator shall re-establish the CPMS operating limit. Conducting of additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this subparagraph is not required.

(iv) PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of this Part.

(y) The owner or operator shall conduct annual performance tests between 11 and 13 months of the previous performance test.

(z) On an annual basis (no more than 12 months following the previous annual air pollution control device inspection), the owner or operator shall complete the air pollution control device inspection as described in paragraphs 5.5.8(e) and (f) of this Part.

(aa) The owner or operator shall conduct annual performance tests according to the schedule specified in paragraph 5.5.9(y) in this Section, with the following exceptions:

(1) The owner or operator may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward, as specified in paragraphs 5.5.9(bb) and (cc) of this Section. The Director may request a repeat performance test at any time.

(2) The owner or operator shall repeat the performance test within 60 days of a process change, as defined in Section 5.5.1 of this Part.

(3) If the initial or any subsequent performance test for any pollutant in table 1 or tables 5 through 8 of this Part, as applicable, demonstrates that the emission level for the pollutant is no greater than the emission level specified in subdivision 5.5.9(aa)(3)(i) or (aa)(3)(ii) of this paragraph, as applicable, and the owner or operator is not required to conduct a performance test for the pollutant in response to a request by the Director in subparagraph 5.5.9(aa)(1) of this paragraph or a process change in subparagraph 5.5.9(aa)(2) of this paragraph, the owner or operator may elect to skip conducting a performance test for the pollutant for the next 2 years. The owner or operator shall conduct a performance test for the pollutant during the third year and no more than 37 months following the previous performance test for the pollutant. For cadmium and lead, both cadmium and lead shall be emitted at emission levels no greater than their respective emission levels specified in subdivision 5.5.9(aa)(3)(i) of this paragraph to qualify for less frequent testing under this paragraph.

(i) For particulate matter, hydrogen

chloride, mercury, carbon monoxide, nitrogen oxides, sulfur dioxide, cadmium, lead, and dioxins/furans, the emission level equal to 75 percent of the applicable emission limit in table 1 or tables 5 through 8 of this Part, as applicable, to this Part.

(ii) For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for 2 percent of the time during each of the three 1-hour observation periods.

(4) If the owner or operator is conducting less frequent testing for a pollutant as provided in subparagraph 5.5.9(aa)(3) of this paragraph and a subsequent performance test for the pollutant indicates that the CISWI unit does not meet the emission level specified in subdivision 5.5.9(aa)(3)(i) or 5.5.9(aa)(3)(ii) of this paragraph, as applicable, the owner or operator shall conduct annual performance tests for the pollutant according to the schedule specified in paragraph 5.5.9(aa) of this Section until qualification for less frequent testing for the pollutant as specified in subparagraph 5.5.9(aa)(3) of this paragraph.

(bb) The owner or operator may conduct a repeat performance test at any time to establish new values for the operating limits. The Director may request a repeat performance test at any time.

(cc) The owner or operator shall repeat the performance test if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

5.5.10 Monitoring.

(a) If a wet scrubber is used to comply with the emission limitation under subparagraph 5.5.6(a) of this Part, the owner or operator shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance

with the operating limits listed in Table 2 of this Part. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 2 of this Part at all times except as specified in subdivision (t)(1)(i) of this section.

(b) If a fabric filter is used to comply with the requirements of this Part, the owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system as specified in subparagraphs (b)(1) through (8) of this paragraph.

(1) The owner or operator shall install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(3) The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor shall provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems, a bag leak detection system shall be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(c) If a device other than a wet scrubber, activated carbon, selective non-catalytic reduction, an electrostatic precipitator, or a dry scrubber is used to comply with the emission limitations under 5.5.6(a) of this Part, the owner or operator shall install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in paragraph 5.5.6(c) of this Part.

(d) If activated carbon injection is used to comply with the emission limitations in this Part, the owner or operator shall measure the minimum sorbent flow rate once per hour.

(e) If selective noncatalytic reduction is used to comply with the emission limitations, the owner or operator shall complete the following:

(1) Following the date on which the initial performance test is completed or is required to be completed under Section 5.5.7 of this Part, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature (if applicable to your CISWI unit) or the minimum reagent flow rate measured as 3-hour block averages at all times.

(2) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature and below the minimum reagent flow rate simultaneously constitute a violation of the nitrogen oxides emissions limit.

(f) If an electrostatic precipitator is used to comply with the emission limits of this Part, the owner or operator shall monitor the secondary power to the electrostatic precipitator collection plates and maintain the 3-hour block averages at or above the operating limits established during the mercury or particulate matter performance test.

(g) For waste-burning kilns not equipped with a

wet scrubber or dry scrubber, in place of hydrogen chloride testing with EPA Method 321 at 40 CFR part 63, appendix A, an owner or operator shall install, calibrate, maintain, and operate a CEMS for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system. To demonstrate continuous compliance with the hydrogen chloride emissions limit for units other than waste-burning kilns not equipped with a wet scrubber or dry scrubber, a facility may substitute use of a hydrogen chloride CEMS for conducting the hydrogen chloride annual performance test, monitoring the minimum hydrogen chloride sorbent flow rate, monitoring the minimum scrubber liquor pH.

(h) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter CEMS for conducting the particulate matter annual performance test and other CMS monitoring for PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(i) To demonstrate continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan annual performance test. The owner or operator shall record the output of the system and analyze the sample according to EPA Method 23 at 40 CFR part 60, appendix A-7. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from continuous monitors is published in the Federal Register. The owner or operator who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 at 40 CFR part 60, appendix A-7 shall install, calibrate, maintain and operate a continuous automated sampling system and shall comply with the requirements specified in § 60.58b(p) and (q). A facility may substitute continuous dioxin/furan monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the dioxin/furan emission limit.

(j) To demonstrate continuous compliance with the mercury emissions limit, a facility may substitute use of a continuous automated sampling system for the mercury annual performance test. The owner or operator

shall record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet performance specification 12B criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to mercury from monitors is published in the Federal Register. The owner or operator who elects to continuously sample mercury emissions instead of sampling and testing using EPA Method 29 or 30B at 40 CFR part 60, appendix A-8, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see § 60.17), or an approved alternative method for measuring mercury emissions, shall install, calibrate, maintain and operate a continuous automated sampling system and shall comply with the requirements specified in § 60.58b(p) and (q). A facility may substitute continuous mercury monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the mercury emission limit.

(k) To demonstrate continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a CEMS for the nitrogen oxides annual performance test to demonstrate compliance with the nitrogen oxides emissions limits.

(1) Install, calibrate, maintain and operate a CEMS for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B of 40 CFR part 60, the quality assurance procedure 1 of appendix F of 40 CFR part 60 and the procedures under § 60.13 shall be followed for installation, evaluation and operation of the CEMS.

(2) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under Section 5.5.7 of this Part, compliance with the emission limit for nitrogen oxides required under § 60.52b(d) shall be determined based on the 30-day rolling average of the hourly emission concentrations using CEMS outlet data. The 1-hour arithmetic averages shall be expressed in parts per million by volume corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average concentrations. CEMS data during

startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2).

(l) To demonstrate continuous compliance with the sulfur dioxide emissions limit, a facility may substitute use of a continuous automated sampling system for the sulfur dioxide annual performance test to demonstrate compliance with the sulfur dioxide emissions limits.

(1) Install, calibrate, maintain and operate a CEMS for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B of 40 CFR part 60, the quality assurance requirements of procedure 1 of appendix F of 40 CFR part 60 and the procedures under § 60.13 must be followed for installation, evaluation and operation of the CEMS.

(2) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under Section 5.5.7 of this Part, compliance with the sulfur dioxide emission limit may be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations using CEMS outlet data. The 1-hour arithmetic averages shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2).

(m) For energy recovery units that do not use a wet scrubber, fabric filter with bag leak detection system, or particulate matter CEMS, the owner or operator shall install, operate, certify and maintain a continuous opacity monitoring system according to the procedures in subparagraphs 5.5.10(m)(1) through (5) of this paragraph by the compliance date specified in Section 5.5.6 of

this Part. Energy recovery units that use a particulate matter CEMS to demonstrate initial and continuing compliance according to the procedures in paragraph 5.5.10(n) are not required to install a continuous opacity monitoring system and shall perform the annual performance tests for opacity consistent with paragraph 5.5.9(f) of this Part.

(1) Install, operate and maintain each continuous opacity monitoring system according to performance specification 1 at 40 CFR part 60, appendix B.

(2) Conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in § 60.13 and according to performance specification 1 at 40 CFR part 60, appendix B.

(3) As specified in § 60.13(e)(1), each continuous opacity monitoring system shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) Reduce the continuous opacity monitoring system data as specified in § 60.13(h)(1).

(5) Determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected.

(n) For coal and liquid/gas energy recovery units, incinerators, and small remote incinerators, an owner or operator may elect to install, calibrate, maintain and operate a CEMS for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who continuously monitors particulate matter emissions instead of conducting performance testing using EPA Method 5 at 40 CFR part 60, appendix A-3 or, as applicable, monitor with a particulate matter CPMS according to paragraph 5.5.10(r) of this Section, shall install, calibrate, maintain and operate a CEMS and shall comply with the requirements specified in subparagraphs 5.5.10(n)(1) through (13) of this paragraph below.

(1) Notify the Director 1 month before starting use of the system.

(2) Notify the Director 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated and operated in accordance with the requirements of performance specification 11 of appendix B of 40 CFR part 60 and quality assurance requirements of procedure 2 of appendix F of 40 CFR part 60 and § 60.13.

(4) The initial performance evaluation shall be completed no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under Section 5.5.7 of this Part or within 180 days of notification to the Director of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 at 40 CFR part 60, appendix A-3 performance tests, whichever is later.

(5) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established according to the procedures and methods specified in subdivisions 5.5.9(s)(5)(i) through (iv).

(6) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions as required under Section 5.5.7 of this Part. Compliance with the particulate matter emission limit, if PM CEMS are elected for demonstrating compliance, shall be determined by using the CEMS specified in paragraph 5.5.10(n) of this Section to measure particulate matter. The owner or operator shall calculate a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, as defined in this Part,

using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7.

(7) Compliance with the particulate matter emission limit shall be determined based on the 30-day rolling average calculated using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, Appendix A-7 from the 1-hour arithmetic average of the CEMS outlet data.

(8) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified paragraph 5.5.10(t) of this Section.

(9) The 1-hour arithmetic averages required under subparagraph 5.5.10(n)(7) of this paragraph shall be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (or carbon dioxide)(dry basis) and shall be used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2).

(10) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of subparagraph 5.5.10(n)(8) of this paragraph are not met.

(11) The CEMS shall be operated according to performance specification 11 in appendix B of 40 CFR part 60.

(12) During each relative accuracy test run of the CEMS required by performance specification 11 in appendix B of 40 CFR part 60, particulate matter and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30-to 60-minute period) by both the CEMS and the following test methods.

(i) For particulate matter, EPA Reference Method 5 at 40 CFR part 60, appendix A-3 shall be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B at 40 CFR part 60, appendix A-2, as applicable, shall be used.

(13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of 40 CFR part 60.

(o) To demonstrate continuous compliance with the carbon monoxide emissions limit, a facility may substitute use of a continuous automated sampling system for the carbon monoxide annual performance test to demonstrate compliance with the carbon monoxide emissions limits.

(1) Install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 4B of appendix B of 40 CFR part 60, the quality assurance procedure 1 of appendix F of 40 CFR part 60 and the procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(2) Following the date that the initial performance test for carbon monoxide is completed or is required to be completed under Section 5.5.7 of this Part, compliance with the carbon monoxide emission limit may be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations, including CEMS data during startup and shutdown as defined in this Part, using CEMS outlet data. Except for CEMS data during startup and shutdown, as defined in this Part, the 1-hour arithmetic averages shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data collected during startup or shutdown, as defined in this Part, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2).

(p) The owner/operator of an affected source with

a bypass stack shall install, calibrate (to manufacturers' specifications), maintain and operate a device or method for measuring the use of the bypass stack including date, time and duration.

(q) For energy recovery units with a design heat input capacity of 100 MMBtu per hour or greater that do not use a carbon monoxide CEMS, the owner or operator shall install, operate and maintain an oxygen analyzer system as defined in Section 5.5.1 of this Part according to the procedures in subparagraphs 5.5.10(q)(1) through (4) of this paragraph below.

(1) The oxygen analyzer system shall be operated by the initial performance test date specified in paragraph 5.5.6(b) of this Part.

(2) The owner or operator shall operate the oxygen trim system within compliance with subparagraph (q)(3) below at all times.

(3) The owner or operator shall maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen according to subparagraph (q)(4) below is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test..

(4) The owner or operator shall calculate and record a 30-day rolling average oxygen concentration using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 of Appendix A-7 of 40 CFR part 60.

(r) For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hour and waste-burning kilns, the owner or operator shall install, calibrate, maintain, and operate a PM CPMS and record the output of the system as specified in subparagraphs 5.5.10(r)(1) through (8) of this paragraph below. For other energy recovery units, the owner or operator may elect to use PM CPMS operated in accordance with this paragraph. PM CPMS are suitable in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(1) Install, calibrate, operate, and maintain the PM CPMS according to the procedures in the approved site-specific monitoring plan developed in accordance with paragraph 5.5.9(l) and subdivisions 5.5.10(r)(1)(i) through (iii) of this paragraph.

(i) The operating principle of the PM CPMS shall be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation of the exhaust gas or representative sample. The reportable measurement output from the PM CPMS shall be expressed as milliamps.

(ii) The PM CPMS shall have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS shall be capable of detecting and responding to particulate matter concentrations of no greater than 0.5 mg/actual cubic meter.

(2) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, the owner or operator shall adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in paragraph 5.5.6(b) of this Part.

(3) Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours. Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output collected during all energy recovery unit or waste- burning kiln operating hours data (milliamps).

(5) The owner or operator shall collect data using the PM CPMS at all times the energy recovery unit or waste-burning kiln is operating and at the intervals specified in subdivision 5.5.10(r)(1)(ii) of this paragraph, except for periods of monitoring

system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in the site-specific monitoring plan.

(6) The owner or operator shall use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing the compliance with the operating limit except:

(i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in the annual deviation report);

(ii) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods are not used in calculations (report emissions or operating levels and report any such periods in the annual deviation report);

(iii) Any PM CPMS data recorded during periods of CEMS data during startup and shutdown, as defined in this Part.

(7) The owner or operator shall record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with the site-specific monitoring plan.

(8) For any deviation of the 30-day rolling

average PM CPMS average value from the established operating parameter limit, the owner or operator shall:

(i) Within 48 hours of the deviation, visually inspect the air pollution control device;

(ii) If inspection of the air pollution control device identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(iii) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify. Within 45 days of the deviation, the owner or operator shall re-establish the CPMS operating limit. It is not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this subparagraph.

(iv) PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of this Part.

(s) If a dry scrubber is used to comply with the emission limits of this Part, the owner or operator shall monitor the injection rate of each sorbent and maintain the 3-hour block averages at or above the operating limits established during the hydrogen chloride performance test.

(t) The minimum amount of monitoring data obtained is determined as follows:

(1) For each continuous monitoring system required or optionally allowed under Section 5.5.10 of this Part, the owner or operator shall monitor and collect data according to subdivisionss 5.5.10(t)(1)(i) through (iii) below:

(i) The owner or operator shall operate the monitoring system and collect data at all required intervals at all times compliance is required except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods (as specified in subparagraph 5.5.11(cc)(15) of this Part), and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to effect monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(ii) The owner or operator may not use data recorded during the monitoring system malfunctions, repairs associated with monitoring system malfunctions or out-of control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(iii) Except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out- of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.

5.5.11 Recordkeeping and Reporting. The following items shall be maintained (as applicable) as specified in paragraphs (a), (b) and (e) through (w) of this section for a period of at least 5 years:

(a) Calendar date of each record.

(b) Records of the data described in subparagraphs (b)(1) through (6) of this paragraph:

(1) The CISWI unit charge dates, times, weights, and hourly charge rates.

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(3) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(5) For affected CISWI units that establish operating limits for controls other than wet scrubbers under subparagraphs 5.5.6 (b)(4) through (7) or paragraph 5.5.6(c) of this Part, the owner or operator shall maintain data collected for all operating parameters used to determine compliance with the operating limits. For energy recovery units using activated carbon injection or a dry scrubber, the owner or operator shall also maintain records of the load fraction and corresponding sorbent injection rate records.

(6) If a fabric filter is used to comply with the emission limitations, the owner or operator shall record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. The owner or operator shall also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in subparagraph 5.5.6(b)(3) of this Part.

(c) Reserved.

(d) Reserved.

(e) Identification of calendar dates and times for which data show a deviation from the operating limits in Table 2 of this Part or a deviation from other operating limits established under paragraph 5.5.6(c) or subparagraphs 5.5.6(b)(4) through (7) of this Part with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(f) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations.

(g) Records showing the names of CISWI unit operators who have completed review of the information in subparagraph 5.5.5(g)(1) as required by subparagraph 5.5.5(g)(2) of this Part, including the date of the initial review and all subsequent annual reviews.

(h) Records showing the names of the CISWI operators who have completed the operator training requirements, met the criteria for qualification, and maintained or renewed their qualification under section 5.5.5 of this Part. Records shall include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(i) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(j) Records of calibration of any monitoring devices as required under section 5.5.10 of this Part.

(k) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(l) The information listed in paragraph 5.5.5(g) of this Part.

(m) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

(n) Maintain records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in table 1 of this Part or tables 5 through 8 of this Part, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Director.

(o) For continuously monitored pollutants or parameters, the owner or operator shall document and keep a record of the following parameters measured using continuous monitoring systems.

(1) All 6-minute average levels of opacity.

(2) All 1-hour average concentrations of sulfur dioxide emissions. The owner or operator shall indicate which data are CEMS data during startup and shutdown.

(3) All 1-hour average concentrations of nitrogen oxides emissions. The owner or operator shall indicate which data are CEMS data during startup and shutdown.

(4) All 1-hour average concentrations of carbon monoxide emissions. The owner or operator shall indicate which data are CEMS data during startup and shutdown.

(5) All 1-hour average concentrations of particulate matter emissions. The owner or operator shall indicate which data are CEMS data during startup and shutdown.

(6) All 1-hour average concentrations of mercury emissions. The owner or operator shall indicate which data are CEMS data during startup and shutdown.

(7) All 1-hour average concentrations of hydrogen chloride emissions. The owner or operator shall indicate which data are CEMS data during startup and shutdown.

(8) All 1-hour average percent oxygen concentrations.

(9) All 1-hour average PM CPMS readings or particulate matter CEMS outputs.

(p) Records indicating use of the bypass stack, including dates, times and durations.

(q) If choosing to stack test less frequently than annually, consistent with paragraph 5.5.9(aa) of this Part, the owner or operator shall keep annual records that document that the emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(r) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(s) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(t) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 60.11(d) of 40 CFR part 60, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(u) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1), the owner or operator shall keep a record which documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1). If the owner or operator combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4), the owner or operator shall keep records as to how the operations that produced the fuel satisfies the definition of processing in § 241.2 and each of the legitimacy criteria in § 241.3(d)(1). If the fuel received a non-waste determination pursuant to the

petition process submitted under § 241.3(c), the owner or operator shall keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4, the owner or operator shall keep records documenting that the material is a listed non-waste under § 241.4(a).

(v) Records of the criteria used to establish that 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)) and that the waste material the unit is proposed to burn is homogeneous.

(w) Records of the criteria used to establish that the unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)) and that the waste material the unit is proposed to burn is homogeneous.

(x) All records shall be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Director.

(y) A summary of the reporting requirements can be found in Table 4 of this Part.

(z) The waste management plan shall be submitted no later than the date specified in subparagraph 5.5.3(a)(1) of this Part for submittal of the final control plan.

(aa) The information specified in subparagraphs (aa)(1) through (3) of this paragraph below shall be submitted no later than 60 days following the initial performance test. All reports shall be signed by the responsible official.

(1) The complete test report for the initial performance test results obtained under section 5.5.8 of this Part, as applicable.

(2) The values for the site-specific operating limits established in paragraphs 5.5.6(b) or (c) of this Part.

(3) If a fabric filter is being used to comply with the emission limitations, documentation that

a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by paragraph 5.5.10(b) of this Part.

(bb) An annual report shall be submitted no later than 12 months following the submission of the information in paragraph (aa) of this section above. Subsequent reports shall be submitted no more than 12 months following the previous report. (If the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator may be required by the permit to submit these reports more frequently).

(cc) The annual report required under paragraph (bb) of this section above shall include the ten items listed in subparagraphs (cc)(1) through (10) of this paragraph below. If there is a deviation from the operating limits or the emission limitations, deviation reports shall also be submitted as specified in paragraph (dd) of this section below.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth and accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The values for the operating limits established pursuant to paragraphs 5.5.6(b) or 5.5.6(c) of this Part.

(5) If no deviation from any emission limitation or operating limit that applies has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period.

(6) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(7) Information recorded under subparagraphs (b)(6) and (e) of this section for the calendar year being reported.

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

(9) If the requirements of paragraphs 5.5.9(aa) were met, and the owner or operator did not conduct a performance test during the reporting period, the owner or operator shall state that the requirements of paragraphs 5.5.9(aa) were met, and, therefore, they were not required to conduct a performance test during the reporting period.

(10) Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

(11) If there was a malfunction during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(12) For each deviation from an emission or operating limitation that occurs for a CISWI unit for which a CMS is not being used to comply with the emission or operating limitations in this Part, the annual report shall contain the following information.

(i) The total operating time of the CISWI unit at which the deviation occurred during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(13) If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in

subparagraph 5.5.11(cc)(15) of this Section, the annual report shall contain the following information for each deviation from an emission or operating limitation occurring for a CISWI unit for which a continuous monitoring system is being used to comply with the emission and operating limitations in this Part.

(i) The date and time that each malfunction started and stopped.

(ii) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken.

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(v) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI unit at which the continuous monitoring system downtime occurred during that reporting period.

(viii) An identification of each parameter and pollutant that was monitored at the CISWI unit.

(ix) A brief description of the CISWI unit.

(x) A brief description of the continuous monitoring system.

(xi) The date of the latest continuous monitoring system certification or audit.

(xii) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(14) If there were periods during which the continuous monitoring system, including the CEMS, was not out of control as specified in subparagraph 5.5.11(cc)(15) of this Section, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.

(15) A continuous monitoring system is out of control if any of the following occur.

(i) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

(ii) The continuous monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(iii) The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

(16) For energy recovery units, include the annual heat input and average annual heat input rate of all fuels being burned in the unit to verify which subcategory of energy recovery unit applies.

(dd) Reporting of deviations from the operating limits or the emission limitations.

(1) A deviation report shall be submitted if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this Part, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.

(2) The deviation report shall be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31).

(3) In each report required under this paragraph, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this Part, include the items described in subdivisions (dd)(3)(i) through (iv) of this subparagraph below.

(i) The calendar dates and times the CISWI unit deviated from the emission limitations or operating limit requirements.

(ii) The averaged and recorded data for those dates.

(iii) Duration and causes of the following:

(A) Each deviation from the emission limitations or operating limits and corrective actions taken.

(B) Bypass events and corrective actions taken.

(iv) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(4) If all qualified operators are not accessible for 2 weeks or more, the two actions in subdivisions (dd)(4)(i) and (ii) of this subparagraph below shall be taken.

(i) Submit a notification of the deviation within 10 days that includes the three items in subdivisions (dd)(4)(i)(A) through (C) of this subparagraph below.

(A) A statement of what caused the deviation.

(B) A description of what actions are being taken to ensure that a qualified operator is accessible.

(C) The date when it is anticipated that a qualified operator will be available.

(ii) Submit a status report to the Director every 4 weeks that includes the three items in subdivisions (dd)(4)(ii)(A) through (C) of this subparagraph below.

(A) A description of what actions are being taken to ensure that a qualified operator is accessible.

(B) The date when it is anticipated that a qualified operator will be accessible.

(C) Request approval from the Director to continue operation of the CISWI unit.

(iii) If the CISWI unit was shut down by the Administrator, under the provisions of subdivision 5.5.5(h)(2)(ii) of this Part, due to a failure to provide an accessible qualified operator, the owner or operator shall notify the Administrator that operations will resume once a qualified operator is accessible.

(ee) Notifications provided by 40 CFR, § 60.7 [as incorporated by reference under Part 13.2 Subpart A] shall be submitted.

(ff) If the owner or operator cease combusting solid waste but continue to operate, the owner or operator shall provide 30 days prior notice of the effective date of the waste-to-fuel switch, consistent with paragraph 5.5.9(a) of this Part. The notification must identify:

(1) The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

(2) The currently applicable subcategory under this Part, and any 40 CFR part 63 subpart and subcategory that will be applicable after combusting solid waste is ceased;

(3) The fuel(s), non-waste material(s) and solid waste(s) the CISWI unit is currently combusting and has combusted over the past 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

(4) The date on which the unit became subject to the currently applicable emission limits;

(5) The date upon which the unit will cease combusting solid waste, and the date (if different) that the owner or operator intend for any new requirements to become applicable (i.e., the effective date of the waste-to-fuel switch), consistent with subparagraphs (ff)(2) and (3) of this paragraph.

(gg) Initial, annual, and deviation reports shall be submitted electronically or in paper format, postmarked on or before the submittal due dates.

(hh) Submit results of performance tests and CEMS performance evaluation tests as follows.

(1) Within 60 days after the date of completing each performance test as required by this Part, the owner or operator shall submit the results of the performance tests required by this Part to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data

Exchange (CDX)(www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/index.html). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive, or other commonly used electronic storage media to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this subparagraph. At the discretion of the delegated authority, the owner or operator shall also submit these reports, including the confidential business information, to the Director in the format specified by the Director. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.

(2) Within 60 days after the date of completing each CEMS performance evaluation test, as defined in this Part and required by this Part, the owner or operator shall submit the relative accuracy test audit (RATA) data electronically into EPA's Central Data Exchange by using CEDRI as mentioned in subparagraph (hh)(1) of this paragraph. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.

(ii) The Director may change the semiannual or annual reporting dates. Procedures for seeking

approval to change reporting dates are found in 40 CFR, § 60.19(c) [as incorporated by reference under Part 13.2 Subpart A].

5.5.12 Major Source Operating Permits. Each CISWI and air curtain incinerator subject to standards under this Part (excluding rules in Section 5.5.13 below) unit shall operate pursuant to the requirements of Part 3.9 by December 1, 2003.

5.5.13 Air Curtain Incinerators.

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(b) Air curtain incinerators that burn only the materials listed in subparagraphs (b)(1) through (3) of this paragraph below are only required to meet the requirements under this section.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

(c) For owners or operators planning to achieve compliance more than one year following the effective date of EPA's approval of ADEM Admin. Code R. 335-3-3-.05, the two increments of progress specified in subparagraphs (c)(1) and (2) of this paragraph below shall be met.

(1) Submit a final control plan no later than one year following the effective date of EPA's approval of ADEM Admin. Code R. 335-3-3-.05.

(2) Achieve final compliance no later than December 1, 2005.

(d) The owner or operator shall submit to the Director, notifications for achieving increments of progress. The notifications shall be postmarked no later than 10 business days after the compliance date for the increment. These notifications shall include the three items specified in subparagraphs (d)(1) through (3) of this paragraph below:

(1) Notification that the increment of progress has been achieved.

(2) Any items required to be submitted with each increment of progress.

(3) Signature of the owner or operator of the incinerator unit.

(e) If an owner or operator fails to meet an increment of progress, a notification to the Director shall be submitted and postmarked within 10 business days after the date for that increment of progress in paragraph (c) of this section above. The owner or operator shall inform the Director that the increment was not met, and reports shall be submitted each subsequent calendar month until the increment of progress is met.

(f) For the control plan increment of progress, the owner or operator shall satisfy the two requirements specified in subparagraphs (f)(1) and (2) of this paragraph below.

(1) Submit the final control plan, including a description of any devices for air pollution control and any process changes that will be used to comply with the emission limitations and other requirements of this paragraph.

(2) Maintain an onsite copy of the final control plan.

(g) For the final compliance increment of progress, the owner or operator shall complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the

affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

(h) Closing and restarting an air curtain incinerator.

(1) If the incinerator is closed but will be restarted prior to the final compliance date of December 1, 2005, the increments of progress specified in paragraph (c) of this section shall be met.

(2) If the incinerator is to restart after the final compliance date, the owner or operator shall complete emission control retrofits and meet the emission limitations on the date the incinerator restarts operation.

(i) Permanent closure of an air curtain incinerator. If the owner or operator plans to close the incinerator rather than comply with this Part, submit a closure notification, including the date of closure, to the Director within 90 days after EPA approval of ADEM Admin. Code R. 335-3-3-.05.

(j) Emission limitations for air curtain incinerators.

(1) After the date the initial stack test is required or completed (whichever is earlier), the owner or operator shall meet the limitations in subdivisions (j)(1)(i) and (ii) of this subparagraph below.

(i) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values), except as described in subparagraph (j)(1)(ii) of this paragraph below.

(ii) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

(k) Monitoring opacity for air curtain incinerators.

(1) Use Method 9 of 40 CFR 60, Appendix A to determine compliance with the opacity limitation.

(2) Conduct an initial test for opacity as specified in 40 CFR, § 60.8 no later than 180 days after the final compliance date.

(3) After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of the previous test.

(l) Recordkeeping and reporting requirements for air curtain incinerators.

(1) Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the Director approves another format, for at least 5 years.

(2) Make all records available for submittal to the Director or for an inspector's onsite review.

(3) Submit an initial report no later than 60 days following the initial opacity test that includes the information specified in subdivisions (l)(3)(i) and (ii) of this subparagraph below.

(i) The types of materials planned to be combusted in the air curtain incinerator.

(ii) The results (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) of the initial opacity tests.

(4) Submit annual opacity test results within 12 months following the previous report.

(5) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date and keep a copy onsite for a period of 5 years.

TABLE 1. EMISSION LIMITS FOR INCINERATORS THAT COMMENCED CONSTRUCTION ON OR BEFORE NOVEMBER 30, 1999, AND WERE NOT MODIFIED OR RECONSTRUCTED AFTER JUNE 1, 2001

Pollutant	Units (7 percent oxygen, dry basis, except opacity)	Averaging Time	Compliance Method 40 CFR 60 Appendix A
Cadmium	0.004 Milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29
Carbon Monoxide	157 Parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Methods 10, 10A, or 10B
Dioxins/furans (toxic equivalency basis)	0.41 Nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run)	Method 23
Hydrogen Chloride	62 Parts per million by dry volume	3-run average (For Method 26, collect a minimum volume of 120 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run).	Method 26 OR 26A
Lead	0.04 Milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29
Mercury	0.47 Milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 or 30B or ASTM D6784-02 (Reapproved 2008)
Nitrogen Oxides	388 Parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Methods 7 or 7E
Particulate Matter	70 Milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 5 or 29
Sulfur Dioxide	20 Parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6c
Opacity	10 Percent	Three 1-hour blocks consisting of ten 6-minute averages—opacity values	Method 9

TABLE 2. OPERATING LIMITS FOR WET SCRUBBERS

For these operating parameters	Establish these operating limits	And Monitor Using These Minimum Frequencies		
		Data Measurement	Data Recording	Averaging Time (Calculated each hour as the average of the previous 3 operating hours.)
Charge rate.	Maximum charge rate.	Continuous	Every hour	Daily (batch units). 3-hour rolling (continuous and intermittent units).
Pressure drop across the wet scrubber or amperage to wet scrubber.	Minimum pressure drop or amperage.	Continuous	Every 15 minutes	3-hour rolling.
Scrubber liquor flow rate.	Minimum flow rate.	Continuous	Every 15 minutes	3-hour rolling.
Scrubber liquor pH.	Minimum pH.	Continuous	Every 15 minutes	3-hour rolling.

TABLE 3. TOXIC EQUIVALENCY FACTORS

Dioxin/Furan Isomer	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

TABLE 4. REPORTING REQUIREMENTS

Report	Due Date	Contents	Reference Part 5.5
Waste Management Plan	No later than the date specified for submittal of the final control plan.	• Waste Management Plan……..	5.5.11(z)
Initial Test Report	No later than 60 days following the initial performance test.	• Complete test report for the initial performance test. • The values for the site-specific operating limits. • Installation of bag leak detection systems for fabric filters.	5.5.11(aa)

Annual Report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	• Name and address…….…. • Statement and signature by responsible official. • Date of report. • Values for the operating limits. • Highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported. • If a performance test was conducted during the reporting period, the results of the test. • If a performance test was not conducted during the reporting period, a statement that the requirements of (9)(aa) were met. • Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks. • If performance tests are being conducted once every 3 years consistent with 5.5.9(aa), the date of the last 2 performance tests, a comparison of the emission level achieved in the last 2 performance tests to the 75 percent emission limit threshold required in 5.5.9(aa) and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

TABLE 4. REPORTING REQUIREMENTS CONT'D

Report	Due Date	Contents	Reference 335-3-.05
Emission Limitation or Operating Limit Deviation Report	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	• Dates and times of deviations……. • Averaged and recorded data for these dates. • Duration and causes for each deviation and the corrective actions taken. • Copy of operating limit monitoring data and any test reports. • Dates, times, and causes for monitor downtime incidents.	5.5.11(t)(1)-(3)
Qualified Operator Deviation Notification.	Within 10 days of deviation.	• Statement of cause of deviation. • Description of efforts to have an accessible qualified operator. • The date a qualified operator will be accessible.	5.5.11(dd)(4)(i)
Qualified Operator Deviation Status Report.	Every 4 weeks following deviation.	• Description of efforts to have an accessible • The date a qualified operator will be accessible. • Request for approval to continue operation	5.5.11(dd)(4)(ii)
Qualified operator Deviation Notification of Resumed Operation.	Prior to resuming operation.	•Notification that operation will resume.	5.5.11(dd)(4)(iii)

TABLE 5. EMISSION LIMITS FOR INCINERATORS THAT COMMENCED CONSTRUCTION AFTER NOVEMBER 30, 1999, BUT NO LATER THAN JUNE 4, 2010, OR COMMENCED MODIFICATION OR RECONSTRUCTION AFTER JUNE 1, 2001 BUT NO LATER THAN AUGUST 7, 2013

Pollutant	Emission Limitation	Averaging Time	Compliance Method 40 CFR 60 Appendix A
Cadmium	0.0026 Milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 29 (Use ICPMS for the analytical finish.
Carbon Monoxide	17 Parts per million dry volume	3-run average (1 hour minimum sample time per run)	Methods 10
Dioxins/furans (toxic mass basis)	4.6 Nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 23
Dioxins/furans (toxic equivalency basis)	0.13 Nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 23

Hydrogen Chloride	29 Parts per million dry volume	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Method 26 or 26A
Lead	0.015 Milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 29 (Use ICPMS for the analytical finish.
Mercury	0.0048 Milligrams per dry standard cubic meter	3-run average (For Method 29 an ASTM D6784-02 (Reapproved 2008),collect a minimum volume of 2 dry standard cubic meters. For Method 30B, collect a minimum sample as specified in Method 30B)	Method 29 or 30B or ASTM D6784-02 (Reapproved 2008)
Nitrogen Oxides	53 Parts per million dry volume	3-run average (for Method 7E, 1 hour minimum sample time per run)	Methods 7 or 7E
Particulate Matter	34 Milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter)	Method 5 or 29
Sulfur Dioxide	11 Parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6c
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period	Three 1-hour observation periods	Method 22 (Visible emission test)

TABLE 6. EMISSION LIMITS FOR ENERGY RECOVERY UNITS THAT COMMENCED CONSTRUCTION ON OR BEFORE JUNE 4, 2010, OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER JUNE 4, 2010 BUT NO LATER THAN AUGUST 7, 2013

Pollutant	Emission Limit (Liquid/Gas)	Emission Limit (Solids)	Averaging Time	Compliance Method 40 CFR 60 Appendix A
Cadmium	0.023 Milligrams per dry standard cubic meter	Biomass—0.0014 milligrams per dry standard cubic meter. Coal—0.0095 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 29 (Use ICPMS for the analytical finish.)
Carbon Monoxide	35 Parts per million dry volume	Biomass—260 parts per million dry volume Coal—95 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Methods 10
Dioxins/furans (total mass basis)	2.9 nanograms per dry standard cubic meter	Biomass—0.52 nanograms per dry standard cubic meter. Coal—5.1 nanograms per dry standard cubic meter. c	3-run average (collect a minimum volume of 4 dry standard cubic meter)	Method 23
Dioxins/furans (toxic equivalency basis)	0.32 Nanograms per dry standard cubic meter	Biomass—0.12 nanograms per dry standard cubic meter Coal—0.075 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters	Method 23
Hydrogen Chloride	14 Parts per million by dry volume	Biomass—0.20 parts per million dry volume Coal—13 parts per million dry volume	3-run average (for Method 26, collect a minimum of 120 liters; for Method 26A, collect a minimum volume of 1 dry standard cubic meter)	Method 26 or 26A

Lead	0.096 Milligrams per dry standard cubic meter	Biomass—0.014 milligrams per dry standard cubic meter. Coal—0.14 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 29 (Use ICPMS for the analytical finish.
Mercury	0.0024 Milligrams per dry standard cubic meter	Biomass—0.0022 milligrams per dry standard cubic meter Coal—0.016 milligrams per dry standard cubic meter	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008) d, collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B.	Method 29 or 30B or ASTM D6784-02 (Reapproved 2008)
Nitrogen Oxides	76 Parts per million dry volume	Biomass—290 parts per million dry volume Coal—340 parts per million dry volume	3-run average (for Method 7E, 1 hour minimum sample time per run)	Methods 7 or 7E
Particulate Matter Filterable	110 milligrams per dry standard cubic meter	Biomass—11 milligrams per dry standard cubic meter Coal—160 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter)	Method 5 or 29 if the unit has an annual average heat input rate less than or equal to 250 MMBtu/hr; or PM CPMS (as specified in § 60.2710(x)) if the unit has an annual average heat input rate greater than 250 MMBtu/hr.
Sulfur Dioxide	720 Parts per million dry volume	Biomass—7.3 parts per million dry volume Coal—650 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6c

Fugitive ash	Visible emissions for no more than 5 percent of the hourly observation period	Visible emissions for no more than 5 percent of the hourly observation period	Three 1-hour observation periods	Method 22 (Visible emission test)

TABLE 7. EMISSION LIMITS FOR WASTE-BURNING KILNS THAT COMMENCED CONSTRUCTION ON OR BEFORE JUNE 4, 2010, OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER JUNE 4, 2010 BUT NO LATER THAN AUGUST 7, 2013

Pollutant	Emission Limitation	Averaging Time	Compliance Method 40 CFR 60 Appendix A
Cadmium	0.0014 Milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 29
Carbon Monoxide	110 (long kilns)/790 (preheater/precalciner) parts per million dry volume	3-run average (1 hour minimum sample time per run)	Method 10
Dioxins/furans (total mass basis)	1.3 Nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters)	Method 23
Dioxins/furans (toxic equivalency basis)	0.075 Nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters)	Method 23
Hydrogen Chloride	3.0 Parts per million by dry volume	3-run average (collect a minimum volume of 1 dry standard cubic meter) or 30-day rolling average if HCl CEMS is being used	Performance test (Method 321 at 40 CFR part 63, appendix A of this part) or HCl CEMS if a wet scrubber is not used.
Lead	0.014 Milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Method 29

Mercury	0.011 Milligrams per dry standard cubic meter	30-day rolling average	Mercury CEMS or sorbent trap monitoring system (performance specification 12A or 12B, respectively, of appendix B of 40 CFR 60.)
Nitrogen Oxides	630 Parts per million by dry volume	3-run average (for Method 7E, 1 hour minimum sample time per run)	Methods 7 or 7E
Particulate Matter Filterable	4.6 Milligrams per dry standard cubic meter	30-day rolling average	PM CPMS (as specified in 60.2710(x))
Sulfur Dioxide	600 Parts per million by dry volume	3-run average (for Method 6, collect a minimum of 20 liters; for Method 6C, 1 hour minimum sample time per run)	Method 6 or 6c

TABLE 8. EMISSION LIMITS FOR SMALL, REMOTE INCINERATORS THAT COMMENCED CONSTRUCTION ON OR BEFORE JUNE 4, 2010, OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER JUNE 4, 2010 BUT NO LATER THAN AUGUST 7, 2013

Pollutant	Units (7 percent oxygen, dry basis, except opacity)	Averaging Time	Compliance Method 40 CFR 60 Appendix A
Cadmium	0.95 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)	Method 29
Carbon Monoxide	64 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Methods 10
Dioxins/furans (total mass basis)	4,400 nanograms per dry standard cubic meter b	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)	Method 23
Dioxins/furans (toxic equivalency basis)	180 nanograms per dry standard cubic meter b	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Method 23

Hydrogen Chloride	300 parts per million dry volume	3-run average (For Method 26, collect a minimum volume of 120 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Method 26 or 26A
Lead	2.1 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Method 29 (Use ICPMS for the analytical finish.
Mercury	0.0053 milligrams per dry standard cubic meter	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008),collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A)	Method 29 or 30B or ASTM D6784-02 (Reapproved 2008)
Nitrogen Oxides	190 parts per million dry volume	3-run average (for Method 7E, 1 hour minimum sample time per run)	Methods 7 or 7E
Particulate Matter (Filterable)	270 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Method 5 or 29
Sulfur Dioxide	150 parts per million dry volume	3-run average (for Method 6, collect a minimum of 20 liters per run; for Method 6C, 1 hour minimum sample time per run)	Method 6 or 6c
Fugitive Ash	Visible emissions for no more than 5 percent of the hourly observation period	Three 1-hour observation periods	Method 22 (Visible emissions test)

CHAPTER 6. CONTROL OF PARTICULATE EMISSIONS

6.1 Visible Emissions. (amended March 13, 1997)

6.1.1 Visible Emissions Restrictions for Stationary Sources.

(a) Except as provided in Paragraphs (b), (c), (d), and (e) below, no person shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant of a shade or density darker than that designated as 20 percent opacity, as determined in accordance with Section 6.1.2.

(b) During one six-minute period in any hour, a person may discharge into the atmosphere from any single source of emission contaminants of a shade or density not darker than that designated as 40 percent opacity.

(c) The Director may approve exceptions to this Section for specific sources which hold permits under Chapter 3; provided, however, such exceptions may be made for start-up, shutdown, load change, and rate change or other short, intermittent periods of time upon terms approved by the Director and made a part of such permit.

(d) The Director may also approve exceptions to this Section in accordance with the following provisions.

(1) The owner or operator of the affected source shall request in writing for the Director to provide an opportunity for the determination of the opacity of emissions during sampling and testing required pursuant to Part 1.10.

(2) Upon receipt from such owner or operator of the written report of the results of the sampling and testing conducted pursuant to Part 1.10, the Director will make a determination concerning compliance with opacity and other applicable standards.

(3) If the Director determines that an affected source is in compliance with all applicable standards for which the sampling and testing are being conducted in accordance with Part 1.9, but during such sampling and testing fails to meet any applicable opacity standard,

the Director shall notify the owner or operator and advise him that he may petition the Director within ten (10) days of receipt of notification to make appropriate adjustment to the opacity standard for the affected source.

(4) The Director may grant such a petition upon a demonstration by the owner or operator that the affected source and associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the sampling and testing; that such sampling and testing were performed under the conditions established by the Director, and that the affected source and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(5) Upon the conclusion of sampling and testing as required above, the Director may establish an opacity standard for the affected source at a level during which the source is meeting the mass emissions standards. If sufficient data is not available to the Director to establish such opacity standard, the Director may require additional sampling and testing as necessary to make such a determination of opacity.

(e) The provisions of this Section shall not apply to combustion sources in single-family and duplex dwellings where such sources are used for heating or other domestic purposes.

6.1.2 Compliance with opacity standards in this Part shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A, 40 CFR Part 60, as the same may be amended requiring a six-minute average as determined by calculating the arithmetic mean of twenty-four consecutive opacity observations taken at intervals of 15 seconds.

6.2 Fugitive Dust. (amended January 23, 1986)

6.2.1 No person shall cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or road to be used, constructed, altered, repaired or demolished in such a manner and amount as to cause a nuisance or to violate any air pollution control rule or regulation. The

Director may order that actions be taken to prevent particulate matter from becoming airborne. Such actions may include but are not limited to the following:

(a) use, where possible, of water or chemicals for control of dust in quarrying operation, the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

(b) application of asphalt, water, or suitable chemicals on dirt roads, materials stock piles, and other surfaces which create airborne dusts;

(c) installation and use of hoods, fans, and fabric filters (or other suitable control devices) to enclose and vent dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

6.2.2 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 or to violate any air pollution control rule or regulation, the Director may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air sufficient to abate the nuisance or bring the violation into compliance. (amended January 23, 1986)

6.3 Fuel Burning Equipment.

6.3.1 No person shall cause or permit the emission of particulate matter from fuel burning equipment in excess of the amount shown in Table 6-1 for the heat input allocated to such source. Interpolation of the data in Table 6-1 for heat input values between 10 million BTU/hr and 250 million BTU/hr shall be accomplished by the use of the equation:

$$E = 1.38H^{-0.44}$$

Where: E = Emissions in lb/million BTU
H = Heat Input in millions of BTU/hr

6.3.2 For purposes of this Part, the total heat input from all similar fuel combustion units which discharge particulate matter through a common stack at a plant or premises shall be used for determining the maximum allowable emission of particulate matter.

TABLE 6-1 ALLOWABLE PARTICULATE MATTER EMISSION BASED ON HEAT INPUT

Heat Input (millions of BTU/hr)	Allowable Emission (lb/million BTU)
1.	.5
10.	.5
20.	.37
40.	.27
60.	.23
80.	.20
100.	.18
150.	.15
200.	.13
250.	.12
1,000,000.	.12

6.4 Process Industries - General.

6.4.1 No person shall cause or permit the emission of particulate matter in any one hour from any source in excess of the amount shown in Table 6-2 for the process weight per hour allocated to such source. Interpolation of the data in Table 6-2 for the process weight per hour values up to 60,000 lbs/hr shall be accomplished by use of the equation:

$$E = 3.59P^{0.62} \qquad P < 30 \text{ tons/hr}$$

and interpolation and extrapolation of the data for process weight per hour values equal to or in excess of 60,000 lbs/hr shall be accomplished by use of the equation:

$$E = 17.31P^{0.16} \qquad P \geq 30 \text{ tons/hr}$$

Where: E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

6.4.2 Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this Part, the interpretation that results in the minimum value for allowable emission shall apply.

6.4.3 For purposes of this Part, the total process weight for all similar process units at a plant or premises shall be used for determining the maximum allowable emission of particulate matter that passes through a stack or stacks.

TABLE 6-2 ALLOWABLE PARTICULATE MATTER EMISSION BASED ON PROCESS WEIGHT RATE

Process Weight Rate (lb/hr)	Allowable Emission Rate (lb/hr)
1,000	2.34
5,000	6.33
10,000	9.76
20,000	14.97
60,000	29.83
80,000	31.23
120,000	33.33
160,000	34 90
200,000	36.17
1,000,000	46.79

6.5 Small Foundry Cupola.

6.5.1 No person shall cause or permit the emission of particulate matter in any one hour from any small foundry cupola source in excess of the amount shown in Table 6-3 for the process weight per hour allocated to such source.

6.5.2 Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this Part, the interpretation that results in the minimum value for allowable emission shall apply.

6.5.3 For purposes of this Part, the total process weight from all similar process units at a plant or

premises shall be used for determining the maximum allowable emission of particulate matter that passes through a stack or stacks.

6.5.4 Foundry cupolas with a process weight rate greater than 50,000 pounds per hour shall be subject to the rules and regulations of Part 6.4.

TABLE 6-3 ALLOWABLE PARTICULATE MATTER EMISSION BASED ON PROCESS WEIGHT RATE FOR SMALL FOUNDRY CUPOLAS

Process Weight (lb/hr)	Allowable Emission Rate (lb/hr)
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.58
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10
30,000	31.30
40,000	37.00
50,000	42.40

6.6 Cotton Gins.

6.6.1 No person shall cause or permit the emission of particulate matter in any one hour from any cotton gin operation in excess of the amount shown in Table 6-4 for the process weight per hour allocated to such operation. Particulate matter emissions subject to this Part include process emissions and incinerator emissions if any; provided, however, that this shall in no way relieve or affect the application of Chapter 5 to open burning and incineration at cotton gin operations.

6.6.2 Where the nature of any process or operation or the design of any equipment is such as to permit more

than one interpretation of this Part, the interpretation that results in the minimum value for allowable emission shall apply.

6.6.3 For purposes of this Part, the total process weight from all similar process units at a plant or premises shall be used for determining the maximum allowable emission of particulate matter that passes through a stack or stacks.

Process Weight Rate (lb/hr)	Allowable Emission Rate (lb/hr)	Process Weight Rate lb/hr)	Allowable Emission Rate (lb/hr)
1,000	1.6	9,000	13.7
1,500	2.4	10,000	15.2
2,000	3.1	12,000	18.2
2,500	3.9	14,000	21.2
3,000	4.7	16,000	24.2
3,500	5.4	18,000	27.2
4,000	6.2	20,000	30.1
5,000	7.7	30,000	44.9
6,000	9.2	40,000	59.7
7,000	10.7	50,000	64.0
8,000	12.2	60,000 or more	67.4

6.7 Regulation of Odors in the Ambient Air.

6.7.1 An odor will be deemed "objectionable" when it causes, or is capable of causing, intermittently or continuously, unpleasant or offensive stimuli to the sense of smell of persons of ordinary sensibilities, when located beyond the property line of the premises upon which the source is located.

6.7.2 No person shall create, cause, establish, or allow any new emission source which causes "objectionable" odor as defined herein, beyond the property line upon which the emission source is located.

6.7.3 No emission source existing on the effective date of these regulations shall be deemed to violate this provision, and no new emission source shall be deemed to violate this provision if the emissions from same are diluted with odor-free air in such a way as to prevent it

from being "objectionable" as defined herein at all points beyond the property line of the emission source.

6.8 Reserved.

6.9 Wood Waste Boilers.

6.9.1 Applicability. This Part applies to boilers and other indirect heat exchangers using not less than 30% wood wastes or wood by-products as fuel measured by heat input.

6.9.2 No person shall cause or permit the emission of particulate matter from any existing wood waste boilers in excess of 0.30 grains per standard dry cubic foot adjusted to 50% excess air. Provided that for any existing wood waste boiler which must be modified in order to meet the emission limitations of this Part, no person shall cause or permit the emission of particulates in excess of:

(a) 0.17 grains per standard dry cubic foot, adjusted to 50% excess air, for combination gas and wood waste boilers.

(b) 0.20 grains per standard dry cubic foot, adjusted to 50% excess air, for combination oil and wood waste boilers.

(c) 0.23 grains per standard dry cubic foot, adjusted to 50% excess air, for combination coal and wood waste boilers.

(d) 0.20 grains per standard dry cubic foot, adjusted to 50% excess air, for boilers using wood wastes only.

6.10 Coke Ovens. (amended August 26, 1976)

6.10.1 Applicability. The provisions of this Part shall apply to coke ovens used for the production of coke.

6.10.2 No person shall cause or permit the emission of particulate matter from any coke oven used in the production of coke unless the person utilizes the best available control technology, with consideration to the technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility.

6.11 Reserved.

6.12 Xylene Oxidation Process. (adopted May 22, 1980)

6.12.1 Applicability. The provisions of this Part shall apply to all xylene oxidation processes. Each process system shall be considered as a separate process unit.

6.12.2 No person shall cause or permit the emissions of particulate matter in any one hour from any xylene oxidation process in excess of the amount calculated by use of the equations:

$$E = 2.75P^{0.62} \qquad P < 30 \text{ tons/hr}$$

$$E = 13.15P^{0.16} \qquad P \geq 30 \text{ tons/yr.}$$

Where: E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

6.12.3 Where a thermal oxidizer is used for the reduction of process waste from a xylene oxidation process and no other waste streams are added, this thermal oxidizer shall be considered a part of the process system.

CHAPTER 7. CONTROL OF SULFUR COMPOUND EMISSIONS

7.1 Fuel Combustion.

7.1.1 No person shall cause or permit the operation of a fuel burning installation in such a manner that sulfur oxides, measured as sulfur dioxide, are emitted in excess of 1.2 pounds per million BTU heat input.

7.1.2 For purposes of this Part, the total heat input from all similar fuel combustion units at a plant or premises shall be used for determining the maximum allowable emission of sulfur dioxide that passes through a stack or stacks. Units constructed and operated to conform with the Standards of Performance for New Stationary Sources prescribed in Chapter 13 shall not be considered similar to other units at a plant, premises, or installation.

7.1.3 No person shall cause or permit the emission or combustion of any refinery process gas stream or any other process gas stream that contains H_2S in concentrations greater than 150 ppm without removal of the hydrogen sulfide in excess of this concentration.

7.2 Process Industries - General. (amended August 26, 1976)

7.2.1 Applicability. This Part applies to facilities not regulated by Parts 7.1, 7.3, and 7.4.

7.2.2 No person shall construct and operate a new or modified sulfur compound emission source that does not meet any and all applicable New Source Performance Standards and utilize the best available control technology, with consideration to the technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility.

7.2.3 No person shall construct and operate a new or modified emission source that will cause or contribute to a condition such that either the primary or the secondary sulfur dioxide ambient air quality standards are exceeded.

7.3 Petroleum Production. (amended August 26, 1976)

7.3.1 Applicability. This Part applies to facilities that handle natural gas or refinery gas that contains more than 0.10 grains of hydrogen sulfide per standard cubic foot (SCF).

7.3.2 No person shall cause or permit the emission of a process gas stream containing more than 0.10 grains/SCF of hydrogen sulfide into the atmosphere unless it is properly burned to maintain the ground level concentrations of hydrogen sulfide to less than 20 parts per billion beyond plant property limits, averaged over a 30-minute period.

7.3.3 No person shall cause or permit the sulfur oxide emission from any facility designed to dispose of or process natural gas or refinery gas containing more than 0.10 grains hydrogen sulfide per standard cubic foot to exceed the following:

Available Sulfur (Long Tons/Day)	Permitted Emissions of Sulfur Dioxide
Up to 5	No Limit
5 to 35	373 lbs/hour
35 to 75	0.10 lbs. SO_2/lb. S processed
Over 75	0.08 lbs. SO_2/lb. S processed

The allowable emissions of sulfur dioxide are increased as follows to allow for dry acid gas streams containing less than 60 percent hydrogen sulfide.

Mol Percent of Hydrogen Sulfide in Dry Acid Gas	Additional SO_2 Emissions Allowed
50% but less than 60%	.02 lbs SO2/lb. S processed
40% but less than 50%	.04 lbs. SO_2/lb. S processed
30% but less than 40%	.06 lbs. SO_2/lb. S processed
20% but less than 30%	.10 lbs. SO_2/lb. S processed
Less than 20%	Must utilize the best available technology, with consideration to the technical practicability and economic reasonableness of reducing or eliminating

the emissions from the facility

7.3.4 Compliance with this Part shall be determined by both material balances and stack sampling. New plants are required either to install monitors to continuously determine the sulfur oxide emissions in terms of mass per unit of time or to determine the sulfur oxide emissions by other means approved by the Director.

7.3.5 In calculating the ground level concentration that results from short-term waste gas or emergency flaring, it shall be assumed that only 75 percent of the heat of combustion is used to heat the products of combustion.

7.3.6 Air Quality Demonstration. In addition to the requirements of Section 7.3.3, every owner or operator of a facility covered by Part 7.3 shall demonstrate, to the satisfaction of the Director, that the sulfur oxides emitted, either alone or in conjunction with other sources, will not interfere with attainment and maintenance of any primary or secondary ambient air quality standard.

CHAPTER 8. CONTROL OF ORGANIC EMISSIONS
(amended March 13, 1986)

8.1 Storage and Loading of Volatile Organic Compounds.

8.1.1 No person shall place, store, or hold in any stationary tank reservoir or other container of more than 40,000 gallons capacity any volatile organic compound unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is equipped with one of the following vapor loss control devices:

(a) an open type floating roof (pontoon or double deck configuration) which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11 pounds per square inch absolute or greater under actual storage conditions. All tank gauging or sampling devices shall be air-tight except when tank gauging or sampling is performed.

(b) a vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such vapors and gases so as to prevent their emissions to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.

(c) other equipment demonstrated to have control efficiency equivalent to or greater than provided under Paragraph (a) or (b) of this Section and approved by the Director.

8.1.2 No person shall place, store or hold in any stationary storage vessel of more than 1,000 gallon but less than 40,000 gallon capacity any volatile organic compound unless such vessel is equipped with a permanent submerged fill pipe or is equipped with a vapor loss control device as set forth in Section 8.1.1.

8.1.3 No person shall load any volatile organic compounds into any storage vessel, tank truck or trailer having a capacity in excess of 200 gallons from any terminal or bulk storage facility unless such terminal or bulk storage facility is equipped with a vapor collection and disposal system, or its equivalent, properly installed, in good working order, or has in operation a loading system which will result in a loading from the bottom. Where a vapor collection and disposal system is utilized, the loading arm shall be equipped with a vapor collection adaptor (pneumatic, hydraulic, or other mechanical means) which will provide a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid organic compound drainage from the loading device when it is removed from the hatch of any tank, tank truck, or trailer. When loading is effected through means other than the hatches, all loading lines shall be equipped with fittings which make vapor-tight connections and which will close automatically when disconnected.

8.1.4 The provisions of this Part shall not apply to crude petroleum produced, separated, treated, or stored in the field; storage vessels having capacities less than 416,000 gallons used to store produced crude oil and condensate prior to lease custody transfer; and fixed roof storage vessels having capacities greater than 40,000 gallons used to store petroleum products whose true vapor pressure is equal to or less than 1.52 pounds per square inch absolute.

8.2 Volatile Organic Compound (VOC) Water Separation. No person shall use any compartment of any single or multiple compartment VOC water separator which receives effluent water containing 1,000 gallons a day or more of any VOC from processing, refining, treating, storing, or handling VOCs unless such compartment is equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation:

(a) a container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(b) a container equipped with an open type floating (pontoon or double deck configuration) or covered type

floating roof (internal floating roof configuration) which shall rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and containing walls. All gauging and sampling devices shall be gas-tight, except when gauging or sampling is taking place.

(c) a container equipped with a vapor recovery system consisting of a vapor gathering system capable of collecting the VOC vapors and gases dispersed and a vapor disposal system capable of processing such vapors and gases so as to prevent their emission into the atmosphere. All container gauging and sampling devices shall be gas-tight, except when gauging or sampling is performed.

(d) a container having other equipment of equal efficiency for purposes of air pollution control as may be approved by the Director.

8.3 Pumps and Compressors. All new pumps and compressors handling volatile organic compounds shall have mechanical seals or other equipment of equal efficiency for purposes of air pollution control as may be approved by the Director.

8.4 Ethylene Producing Plant. No person shall emit a waste gas stream from any ethylene producing plant unless the waste gas stream is properly burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level or an equally effective catalytic vapor incinerator also with pyrometer.

8.5 Cutback Asphalt.

8.5.1 No person shall cause, allow, or permit the sale or offering for sale, mixing, storage, use, or application of cutback asphalts except where:

(a) long-time stockpile storage is necessary; or

(b) the cutback asphalt is to be used or applied at ambient temperatures of less than 50°F ; or

(c) the cutback asphalt is to be used solely as a penetrating prime coat.

8.5.2 Cutback asphalt sources with a potential volatile organic emission rate of less than 100 tons per year are exempt from the provisions of this Part.

8.6 Bulk Gasoline Plants. (Amended April 23, 1992)

8.6.1 No owner or operator of a bulk gasoline plant may permit the unloading of gasoline into stationary storage tanks unless each tank is equipped with a vapor balance system as described under Section 8.6.4 and approved by the Director; and

(a) each tank is equipped with a submerged fill pipe, approved by the Director; or

(b) each tank is equipped with a fill line whose discharge opening is not over 18 inches from the bottom of the tank.

8.6.2 After October 1, 1992, no owner or operator of a bulk gasoline plant, tank truck, or trailer may permit the unloading of tank trucks or trailers at a bulk gasoline plant unless each tank truck or trailer is equipped with a vapor balance system as described under Section 8.6.4 and complies with Section 8.15.1.

8.6.3 No owner or operator of a bulk gasoline plant, tank truck, or trailer shall permit the transfer of gasoline between tank truck or trailer and stationary storage tank unless:

(a) the transfer is conducted in accordance with Sections 8.6.1 and 8.6.2; and

(b) the vapor balance system is in good working order and is connected and operating; and

(c) gasoline tank truck or trailer hatches are covered at all times during unloading operations; and

(d) there are no leaks in the tank trucks' and trailers' pressure/vacuum relief valves and hatch covers, or the truck tanks or storage tanks, or associated vapor

and liquid lines during unloading; and

(e) the pressure relief valves on above-ground storage vessels and tank trucks or trailers are set to release at no less than 0.7 psia or the highest possible pressure (in accordance with state or local fire codes or the National Fire Prevention Association guidelines); and

(f) the gasoline tank truck or trailer has a valid Air Sticker as required by Section 8.15.2 attached and visibly displayed.

8.6.4 Vapor balance system required under Sections 8.6.1 and 8.6.2 shall consist of the following major components:

(a) a vapor space connection on the stationary storage tank equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic compounds; and

(b) a connecting pipe or hose equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic compounds; and

(c) a vapor space connection on the tank truck or trailer equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic material.

8.6.5 No owner or operator of a bulk gasoline plant, tank truck, or trailer may permit the loading of gasoline into tank trucks or trailers that are returning with vapors from gasoline dispensing facilities affected by Part 8.8 unless each tank truck or trailer and the stationary storage tank is equipped with a vapor balance system as described under Section 8.6.4 and complies with Section 8.15.1 and

(a) equipment is available at the bulk gasoline plant to provide for the submerged filling of each tank truck or trailer; or

(b) each tank truck or trailer is equipped for bottom filling.

8.6.6 No owner or operator of a bulk gasoline plant may permit the disposal of waste gasoline in sewers, open containers or in a manner that would result in evaporation.

8.7 Bulk Gasoline Terminals. (Amended April 23, 1992)

8.7.1 No person may load gasoline into any tank truck or trailer from any bulk gasoline terminal unless:

(a) the bulk gasoline terminal is equipped with a vapor recovery system capable of complying with Section 8.7.2, properly installed, in good working order, in operation, and consisting of one of the following:

(1) an absorber or condensation system which processes and recovers at least ninety percent (90%) by weight of all vapors and gases from the equipment being controlled; or

(2) a vapor collection system which directs all vapors to a fuel gas system; or

(3) a control system demonstrated to have control efficiency equivalent to or greater than Subparagraph (1) and (2) and approved by the Director; and

(b) all displaced vapors and gases are vented only to the vapor control system; and

(c) a means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and

(d) all loading and vapor lines are equipped with fittings which make vapor-tight connections and which close automatically when disconnected; and

(e) the gasoline tank truck or trailer has a valid Air Sticker as required by Section 8.15.2 attached and visibly displayed.

8.7.2 Sources affected under Paragraph 8.7.1(a) may not allow mass emissions of VOCs from control equipment to exceed 80 milligrams per liter (4.7 grains per gallon) of gasoline loaded.

8.7.3 Bulk gasoline terminals and the appurtenant equipment necessary to load the tank truck or trailer compartments may not:

(a) allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings; nor

(b) allow the disposal of waste gasoline in sewers, open containers or in a manner that would result in evaporation.

8.8 Gasoline Dispensing Facility - Stage I.
(Amended April 23, 1992)

8.8.1 For the purpose of this Section, the following definitions apply:

(a)"Gasoline Tank Truck" shall mean tank trucks or trailers equipped with a storage tank and used for the transport of gasoline from sources of supply to stationary storage tanks of gasoline dispensing facilities.

(b)"Gasoline Dispensing Facility" shall mean any outlet where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

(c)"Vapor Balance System (Stage I)" means a vapor-tight system that transfers the vapors displaced from the stationary storage tanks to the gasoline tank truck.

8.8.2 This Part will apply to all gasoline dispensing facilities that commenced construction after October 1, 1990. This Part also applies to any gasoline dispensing facility whose tank or tanks are replaced, upgraded, modified, reconstructed, altered, or removed after October 1, 1990 except;

(a) transfers made to storage tanks or gasoline

dispensing facilities equipped with floating roofs or their equivalent;

(b) transfers made to stationary gasoline storage tanks of less than 3,000 gallons capacity.

(c) stationary gasoline storage containers of less than 550 gallons capacity used exclusively for the fueling of implements of husbandry, provided the containers are equipped with submerged fill pipe.

(d) any new or modified existing facility, regardless of tank upgrade, with an actual or expected throughput of gasoline of less than 4,000 gallons per month for the months of June, July, and August during full operation, provided that all gasoline storage tanks that are not exempted under Paragraphs 8.8.2(a), (b), and (c) are equipped with a submerged fill pipe.

8.8.3 No owner or operator may transfer, cause, or allow the transfer of gasoline from any gasoline tank truck into any stationary storage tank subject to this Part, unless the tank is equipped with a submerged fill pipe and the vapors displaced from the storage tank during filling are processed by a vapor control system in accordance with Section 8.8.4.

8.8.4 The vapor control system required by Section 8.8.3 shall include one or more of the following:

(a) a vapor balance system (Stage I) between the stationary storage tank and the gasoline tank truck and a system that will ensure the vapor line is connected before gasoline can be transferred into the tank; or

(b) a refrigeration condensation system or equivalent designed to recover at least ninety percent (90%) by weight of the organic compounds in displaced vapor; or

(c) a system demonstrated to have control efficiency equivalent to or greater than provided under Paragraph 8.8.4(b) and approved by the Director.

8.8.5 Each owner or operator of a gasoline dispensing facility subject to this Part shall:

(a) not permit the transfer of gasoline between a gasoline tank truck and a stationary storage tank unless the gasoline tank truck complies with Part 8.15 and the vapor control system is connected and operating in accordance with Section 8.8.4;

(b) maintain written records of the monthly throughput quantities in gallons and types of petroleum distillates in all stationary storage tanks; and

(c) make available to representatives of the Director upon request copies of all records required under Paragraph 8.8.5(b) and retain the records for a minimum of two (2) years after the date on which the documents were made.

8.8.6 No owner or operator of a gasoline dispensing facility subject to this Part shall cause or allow gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation of the gasoline to the atmosphere.

8.8.7 Regardless of the applicability exemption under Paragraph 8.8.2(d), all gasoline dispensing facilities that are subject to this Part shall maintain the system in proper working order in accordance with this Part even if the facility's average monthly throughput of gasoline decreases to less than 4,000 gallons.

8.9 Petroleum Refinery Sources.

8.9.1 The provisions of this Part apply to vacuum producing systems and process unit turnarounds at petroleum refining sources.

8.9.2 No owner or operator of any vacuum producing system at a petroleum refinery shall cause, allow, or permit the emission of non-condensable volatile organic compounds from the condensers, hot wells, or accumulators of the vacuum producing system unless:

(a) the vapors are combusted in a firebox or incinerator; or

(b) the vapors are added to the refinery fuel gas.

8.9.3 No owner or operator of a petroleum refinery shall cause, allow, or permit the emission of volatile organic compounds during process unit turnaround unless provisions have been implemented to minimize such volatile organic compound emissions by directing depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox, the design of which has been approved by the Director; and

8.9.4 No owner or operator of a petroleum refinery shall cause, allow, or permit the emission of volatile organic compounds from a process unit or vessel during process unit turnaround until the internal pressure is 19.6 pounds per square inch absolute or less.

8.10 Solvent Metal Cleaning.

8.10.1 Applicability. The provisions of this Part apply to cold cleaning, open top vapor degreasing, and conveyorized degreasing operations except that any solvent metal cleaning source having a potential volatile organic compound emission rate of less than 100 tons/year shall be exempt from the provisions of this Part.

8.10.2 Cold Cleaning.

(a) No owner or operator of a cold cleaning device subject to this Part shall cause, allow, or permit the use of such device unless it is equipped with:

(1) a cover such that the cleaner can be kept closed at all times except when processing work loads through the unit; and

(2) a device for draining cleaned parts so that the parts are enclosed under the cover while draining, except that an internal drainage device shall be provided if the volatility of the solvent used is greater than 0.6 pounds per square inch at 100°F. The drainage device may be external for applications where an internal type cannot fit into the cleaning system; and

(b) No owner or operator of a cold cleaning device subject to this Part that contains solvent having a volatility greater than 0.6 pounds per square inch or solvent heated to a temperature greater than 120°F shall

cause, allow, or permit the use of such device unless it has:

(1) a freeboard that gives a freeboard ratio greater than or equal to 0.7; or

(2) a water cover (solvent must be insoluble in and heavier than water); or

(3) another system demonstrated to have control efficiency equivalent to or greater than provided under Subparagraph (1) or (2) and approved by the Director.

(c) No owner or operator of a cold cleaning device subject to this Part shall cause, allow, or permit the use of such device unless a permanent, conspicuous label, summarizing the operating requirements of the cleaner is provided and the escape of solvent vapors has been minimized by:

(1) draining cleaned parts for at least 15 seconds or until dripping ceases; and

(2) if used, supplying a solvent spray that is a solid fluid stream (not a fine atomized, or shower type spray) at a pressure which does not cause excessive splashing; and

(3) storing waste solvent only in covered containers and not disposing of waste solvent or transferring it to another person, such that the waste solvent can evaporate into the atmosphere.

8.10.3 Open Top Vapor Degreasing.

(a) No owner or operator of an open top vapor degreaser subject to this Part shall cause, allow, or permit the use of the degreaser unless:

(1) a cover is provided such that the top is covered at all times except when processing work loads through the degreaser; and

(2) the degreaser is equipped with one of the following control devices:

(i) a freeboard ratio of 0.75 or greater and a powered or mechanically assisted cover; or

(ii) refrigerated chiller; or

(iii) enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser); or

(iv) carbon adsorption system, with ventilation greater than or equal to 50 cubic feet per minute per square foot of air/vapor area (when cover is open), and exhausting less than 25 PPM of solvent averaged over one complete adsorption cycle; or

(v) a control equipment system demonstrated to have control efficiency equivalent to or greater than that provided under subdivision (i), (ii), (iii), or (iv) of this subparagraph and approved by the Director; and

(3) the degreaser is equipped with the following safety switches:

(i) a condenser flow switch and thermostat which shuts off the sump heater if the condenser coolant is either not circulating or the coolant becomes warmer than specified; and

(ii) a vapor level control thermostat which shuts off the sump heater when the solvent vapor zone rises above the designed operating level.

(b) No owner or operator of an open top vapor degreaser shall cause, allow, or permit the use of such degreaser unless the escape or evaporation of solvent has been minimized by:

(1) racking parts to allow complete drainage; and

(2) holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and

(3) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and

(4) allowing parts to dry within the degreaser

for at least 15 seconds or until visually dry; and

(5) repairing solvent leaks immediately, or shutting down the degreaser; and

(6) storing waste solvent only in covered containers and not disposing of waste solvent or transferring it to another party, such that the waste solvent can evaporate into the atmosphere; and

(7) not operating the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and

(8) not using ventilation fans near the degreaser opening nor provide exhaust ventilation exceeding 65 cubic feet per minute per square foot of degreaser open area, unless necessary to meet local, state, or federal requirements; and

(9) not degreasing porous or absorbent materials, such as cloth, leather, wood, or rope; and

(10) not occupying more than half of the degreaser's open top area with a workload; and

(11) always spraying below the vapor level.

(c) Open top vapor degreasers with an open area smaller than 10.8 square feet are exempt from the provisions of this Section.

8.10.4 Conveyorized Degreasing.

(a) No owner or operator of a conveyorized degreaser subject to this Section shall cause, allow, or permit the use of such degreaser unless the unit is equipped with:

(1) one of the following control devices:

(i) refrigerated chiller; or

(ii) carbon adsorption system with ventilation greater than or equal to 50 cubic feet per minute per square foot of air/vapor area (when downtime covers are open), and exhausting less than 25 PPM of

solvent by volume averaged over a complete adsorption cycle; or

(iii) a control equipment system demonstrated to have a control efficiency equivalent to or greater than that provided under Subdivision (i) or (ii) of this Subparagraph and approved by the Director; and

(2) a drying tunnel or rotating (tumbling) basket sufficient to prevent cleaned parts from carrying out solvent liquid or vapor; and

(3) the following safety switches if the unit is a vapor type degreaser:

(i) a condenser flow switch and thermostat which shuts off the sump heater if the condenser coolant is either not circulating or the coolant becomes warmer than specified; and

(ii) a spray safety switch which shuts off the spray pump or the conveyor if the vapor level drops more than four inches below the bottom of the condenser coil; and

(iii) a vapor level control thermostat which shuts off the sump heater when the solvent vapor zone rises above the designed operating level.

(b) No owner or operator of a conveyorized degreaser subject to this Section shall cause, allow, or permit the use of such degreaser unless the escape of solvent vapors has been minimized by:

(1) minimizing openings during operation so that entrances and exits will silhouette workloads with an average clearance between the parts and edge of the degreaser opening of less than four inches or less than 10 percent of the width of the opening; and

(2) racking parts for the best drainage; and

(3) maintaining the vertical conveyor speed at less than 11 feet per minute; and

(4) storing waste solvent only in covered containers and not disposing of waste solvent or

transferring it to another party such that the waste solvent can evaporate into the atmosphere; and

(5) repairing solvent leaks immediately or shutting down the degreaser; and

(6) not operating the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and

(7) placing downtime covers over entrances and exits of conveyorized degreasers immediately after the conveyors and exhaust are shut down and not removing them until just before start-up; and

(8) neither using workplace fans near the degreaser opening nor providing exhaust ventilation exceeding 65 cubic feet per minute per square foot of degreaser opening, unless required by local, state or federal regulations.

(c) Conveyorized degreasers with an air/vapor area smaller than 21.6 square feet are exempt from the provisions of this Section.

8.11 Surface Coating.

8.11.1 Applicability.

(a) The provisions of this Part apply to surface coating operations except that any surface coating source having a potential volatile organic compound emission rate of less than 100 tons/year shall be exempt from the provisions of this Part.

(b) No owner or operator of a surface coating operation subject to this Part shall operate a coating application system that emits volatile organic compounds in excess of the emission limitations stated herein; however, if more than one emission limitation applies to a specific coating operation, then the least stringent emission limitation shall apply.

8.11.2 Can Coating.

(a) No owner or operator of a can coating line

subject to this Section shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:

(1) 2.8 pounds per gallon of coating excluding water, delivered to the coating applicator from sheet basecoat (exterior and interior) and overvarnish or two-piece can exterior (basecoat and overvarnish) operations.

(2) 4.2 pounds per gallon of coating, excluding water, delivered to the coating applicator from two- and three-piece can interior body spray and two-piece can exterior end (spray or roll coat) operations.

(3) 5.5 pounds per gallon of coating, excluding water, delivered to the coating applicator from three-piece can side seam spray operations.

(4) 3.7 pounds per gallon of coating, excluding water, delivered to the coating applicator from end sealing compound operations.

(b) The provisions of this Section apply to coating applicator(s) and oven(s) of sheet, can, or end coating lines involved in sheet basecoat (exterior and interior) and overvarnish; two-piece can exterior (basecoat and overvarnish); two- and three-piece can interior body spray; two-piece can exterior end (spray or roll coat); three-piece can sideseam spray, and end sealing compound operations.

8.11.3 Coil Coating.

(a) No owner or operator of a coil coating line subject to this Section shall cause, allow, or permit the discharge into the atmosphere of volatile organic compounds in excess of 2.6 pounds per gallon of coating, excluding water, delivered to the coating applicator from prime and topcoat or single coat operations.

(b) The provisions of this Section apply to the coating applicator(s), oven(s), and quench area(s) of coil coating lines involved in prime and top coat or single coat operations.

8.11.4 Metal Furniture Coating.

(a) No owner or operator of a metal furniture coating line subject to this Section shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.0 pounds per gallon of coating, excluding water, delivered to the coating applicator from prime and topcoat or single coat operations.

(b) The provisions of this Section apply to the application area(s), flash-off area(s), and oven(s) of metal furniture coating lines involved in prime and topcoat or single coating operations.

8.11.5 Large Appliance Coating.

(a) No owner or operator of a large appliance coating line subject to this Section shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 2.8 pounds per gallon of coating, excluding water, delivered to the coating applicator.

(b) The provisions of this Section apply to application area(s), flash-off area(s), and oven(s) of large appliance coating lines involved in prime, single, or top-coat coating operations; however, such provisions do not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly provided the volume of coating does not exceed 200 gallons in any one year.

8.11.6 Automobile and Light Duty Truck Manufacturing Coating.

(a) No owner or operator of an automobile or light-duty truck manufacturing plant subject to this Section shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:

(1) 1.2 pounds per gallon of coating, excluding water, delivered to the applicator during prime coating operations.

(2) 2.8 pounds per gallon of coating, excluding water, delivered to the applicator during top coating

operations.

(3) 2.8 pounds per gallon of coating, excluding water, delivered to the applicator during final repair coating operations.

(b) The provisions of this Section apply to the application area(s), flash-off area(s), and oven(s) of automotive and light-duty truck manufacturing plants involved in prime, topcoat, and final repair coating operations.

8.11.7 Paper, Fabric, and Vinyl Coating.

(a) No owner or operator of a paper, fabric, or vinyl coating line subject to this Section shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:

(1) 2.9 pounds per gallon of coating, excluding water, delivered to the coating applicator of a paper or fabric coating line.

(2) 3.8 pounds per gallon of coating, excluding water, delivered to the coating applicator of a vinyl coating line.

(b) The provisions of this Section apply to roll, knife, or rotogravure coater(s), flash-off areas, and drying ovens of paper, fabric, and vinyl coating lines. The provisions shall also apply to other application and drying systems of paper, fabric, and vinyl coating lines.

8.11.8 Magnet Wire Coating.

(a) No owner or operator of a magnet wire coating operation subject to this Section shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 1.7 pounds per gallon, excluding water, delivered to the coating applicator.

(b) The provisions of this Section apply to oven(s) of magnet wire coating operations.

8.11.9 Flatwood Paneling Coating. (adopted January 23, 1986)

(a) No owner or operator of a flatwood manufacturing facility subject to the provisions of this Section shall emit VOCs from a coating application system in excess of:

(1) 6.0 pounds per 1,000 square feet of coated finished product from printed interior panels, regardless of the number of coats applied;

(2) 12.0 pounds per 1,000 square feet of coated finished product from natural finish hardwood plywood panels, regardless of the number of coats applied; and,

(3) 10.0 pounds per 1,000 square feet of coated finished product (10.0 pounds per 1,000 square feet) from Class II finishes on hardboard panels, regardless of the number of coats applied.

(b) The provisions of this Section apply to all flatwood manufacturing facilities that manufacture the following products:

(1) printed interior panels made of hardwood, plywood, and thin particleboard;

(2) natural finish hardwood plywood panels; or

(3) hardboard paneling with Class II finishes.

(c) The provisions of this Section do not apply to the manufacture of exterior siding, tile-board, or particleboard used as a furniture component.

8.11.10 Miscellaneous Metal Parts and Products Coating. (adopted January 23, 1986)

(a) No owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may operate a coating application system subject to this Section that emits VOCs in excess of:

(1) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings;

(2) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator in a coating

application system that is air dried or forced warm air dried at temperatures up to 194°F;

(3) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; and,

(4) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.

(b) The provisions of this Section apply to the application area(s), flash-off area(s), air and forced air dryer(s) and oven(s) used in the surface coating of miscellaneous metal parts and products involving prime coat, top coat, and single coat in the following industrial operations:

(1) large farm machinery (harvesting, fertilizing and planting machines, tractors, combines, etc.);

(2) small farm machinery (lawn and garden tractors, lawn mowers, rototillers, etc.);

(3) small appliances (fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.);

(4) commercial machinery (office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.);

(5) industrial machinery (pumps, compressors, conveyor components, fans, blowers, transformers, etc.);

(6) fabricated metal products (metal covered doors, frames, etc.); and

(7) any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), and Major Group 39 (miscellaneous manufacturing industries).

(c) The provisions of this Section do not apply to the surface coating of the following metal parts and products:

(1) automobiles and light-duty trucks;

(2) metal cans;

(3) flat metal sheets and strips in the form of rolls or coils;

(4) magnet wire for use in electrical machinery;

(5) metal furniture;

(6) large appliances;

(7) exterior of airplanes;

(8) automobile refinishing;

(9) customized coating of automobiles and trucks, if production is less than 35 vehicles per day; and

(10) exterior of marine vessels.

(d) Facilities engaged in the surface coating of miscellaneous metal parts and products with a potential volatile organic compound emission rate of less than 100 tons per year are exempt from the provisions of this Section.

8.11.11 Compliance Methods. The emission limits under Part 8.11 may be achieved by: (Adopted April 23, 1992)

(a) the application of low solvent content coating technology; or

(b) the installation and operation of a VOC capture system and a VOC control device system, provided that each day the overall VOC emission reduction efficiency needed to demonstrate compliance with the applicable emission rate restriction is achieved; or

(c) the application of powder coating technology; or

(d) the Director may allow a coating line that has no add-on VOC control equipment to average two or more coatings under all the following conditions:

(1) the surface coating shall be for the same type of operation (source category) and shall be subject to the same regulated emission rate restriction; and

(2) the surface coating shall be delivered to the application system on the same coating line; and

(3) the surface coatings shall be averaged on the basis of pounds of VOC emitted per gallon of coating solids applied to the substrate; and

(4) the compliance demonstration time frame shall be a twenty-four (24) hour period (calendar day); and

(5) the VOC emissions shall be equal to or less than those emitted when all the surface coatings delivered to the application system comply with the applicable regulated VOC emission rate restriction.

8.11.12 Recordkeeping. (Adopted April 23, 1992)

(a) The owner of operator of a coating line subject to the requirements in Part 8.11 shall maintain as a minimum the following daily records to demonstrate compliance in the time frame required by any regulation under this Part or Air Permit condition:

(1) the quantity in gallons of all surface coatings delivered to the application system; and

(2) the quantity in gallons of all organic liquid diluents (coating thinners and additives) added to the surface coatings; and

(3) the quantity in gallons of all organic liquid solvents used for wash or cleanup; and

(4) the quantity in gallons of all organic liquid waste properly contained and shipped out for proper disposal and a certification of the waste density and

percent VOC content by weight; and

(5) the date of each application of surface coatings and diluents and usage of wash and cleanup solvents; and

(6) the regulation(s) applicable to the coating line for which the records are being maintained; and

(7) the daily records shall be kept in the units necessary to verify compliance with the applicable regulations (i.e., pounds of VOC per gallon of coating delivered to the application system, excluding water and exempt VOC); and

(8) the application method and the substrate material type; and

(9) where applicable, the surface coating curing and/or drying oven temperature(s) in degrees Fahrenheit; and

(10) where applicable, the continuous combustion temperature in degrees Fahrenheit of a thermal incinerator control system; and

(11) where applicable, the temperature rise across the catalyst bed and exhaust temperature in degrees Fahrenheit of a catalytic incinerator control system; and

(12) where applicable, the inlet and outlet temperature in degrees Fahrenheit of the cooling medium of a condenser control system; and

(13) the following information on all surface coatings, and organic liquid solvents (diluents, additives, wash, and cleanup):

(i) manufacturer (supplier); and

(ii) product name and manufacturer's code number; and

(iii) density (pounds per gallon); and

(iv) VOC content in percent weight and volume; and

(v) solids content in percent weight and volume; and

(vi) water content in percent weight and volume; and

(vii) exempt VOC content in percent weight and volume; and

(viii) pounds of VOC per gallon of coating delivered to the application system, excluding water and exempt VOC.

(b) The compliance demonstration time frame for an individual coating line that applies coatings that are subject to the same regulated VOC emission rate under Part 8.11 shall be one twenty-four (24) hour period (calendar day).

(c) The daily record required under Paragraph 8.11.12(a) shall be retained by the owner or operator at the location of the regulated source for a minimum of two years after the date of record and shall be available to representatives of the Director upon request.

(d) The recordkeeping provisions of Paragraph 8.11.12(a) shall not apply if the Director determines that alternative records would be sufficient to provide assurance that the source is operating in compliance on a twenty-four (24) hour basis and these alternative requirements are incorporated as permit conditions for the source. In no case can recordkeeping requirements be waived or the stringency of the emissions limit be relaxed.

8.12 Manufacture of Pneumatic Rubber Tires.
(adopted January 23, 1986)

8.12.1 The owner or operator of an undertread cementing, tread-end cementing, or green tire spraying operation subject to this Part shall:

(a) install and operated a capture system which

achieves maximum reasonable capture of evaporated VOC from all undertread cementing, tread-end cementing, and green tire spraying operations. If practical, maximum reasonable capture shall be consistent with the following documents:

(1) "Industrial Ventilation, A Manual of Recommended Practices", 14th Edition, American Federal of Industrial Hygienists.

(2) "Recommended Industrial Ventilation Guidelines" U.S. Department of Health, Education and Welfare, National Institute of Occupational Safety and Health.

(b) install and operate a control device that removes or oxidizes to inorganic compounds at least ninety percent (90%) of the VOC by weight from the gases ducted to the control device. The device must be approved by the Director.

(c) the owner or operator may, instead of implementing the measure required by Paragraphs (a) and (b) of this Section, substitute water-based cements or compounds for the solvent-based cements or compounds.

(d) the owner or operator may, instead of implementing the measures required by Paragraphs (a), (b), and (c) of this Section, submit to the Director for approval a petition for alternative measures which have achieved or will achieve equivalent reductions in VOC emissions. Equivalent reductions mean that the total VOC emissions from undertread cementing, tread-end cementing and green tire spraying shall not exceed an average of 76 grams per green tire, as determined on a monthly basis.

8.12.2 The provisions of this Part apply to VOC emissions from the following operations:

(a) undertread cementing,

(b) tread-end cementing,

(c) green tire spraying.

8.12.3 Facilities engaged in the manufacture of

pneumatic rubber tires prior to adoption of this part are exempt from the provisions of this part.

8.13 Manufacture of Synthesized Pharmaceutical Products. (adopted January 23, 1986)

8.13.1 The owner or operator of a synthesized pharmaceutical manufacturing facility subject to this Part shall control the VOC emissions from all reactors, distillation operations, crystallizers, centrifuges and vacuum dryers that have the potential to emit 15 pounds per day or more of VOCs. Surface condensers or equivalent controls shall be used, provided that:

(a) if surface condensers are used, the condenser outlet gas temperature must not exceed:

(1) -13°F when condensing a VOC of a vapor pressure greater than 5.8 psia*

(2) 5°F when condensing a VOC of a vapor pressure greater than 2.9 psia*

(3) 32°F when condensing a VOC of a vapor pressure greater than 1.5 psia*

(4) 50°F when condensing a VOC of a vapor pressure greater than 1.0 psia*; or,

(5) 77°F when condensing a VOC of a vapor pressure greater than 0.5 psia*.

*Vapor pressure as measured at 68°F.

(b) if equivalent controls are used, the VOC emissions must be reduced by at least as much as they would be by using a surface condenser which meets the requirements of Paragraph (a) of this Section.

8.13.2 The owner or operator of a synthesized pharmaceutical manufacturing facility subject to this Part shall reduce the VOC emissions from all air dryers and production equipment exhaust systems:

(a) by a least ninety percent (90%), if emissions are 330 pounds per day or more of VOC; or,

(b) to 33 pounds per day or less, if emissions are less than 330 pounds per day of VOC.

8.13.3 The owner or operator of a synthesized pharmaceutical manufacturing facility subject to this Part shall:

(a) provide a vapor balance system or equivalent control that is at least ninety percent (90%) effective in reducing emissions from truck or railcar deliveries to storage tanks with capacities greater than 2,000 gallons that store VOC with vapor pressures greater than 4.1 psia at 68°F, and,

(b) install pressure/vacuum conservation vents set at 0.03 psia on all storage tanks that store VOC with vapor pressures greater than 1.5 psia at 20°C (68°F), unless a more effective control system is used.

8.13.4 The owner or operator of a synthesized pharmaceutical manufacturing facility subject to this Part shall enclose all centrifuges, rotary vacuum filters, and other filters which process liquids containing VOC with vapor pressures of 0.5 psia or more at 68°F.

8.13.5 The owner or operator of a synthesized pharmaceutical facility subject to this Part shall install covers on all in-process tanks containing a VOC at any time. These covers must remain closed, unless production, sampling, maintenance, or inspection procedures require operator access.

8.13.6 The owner or operator of a synthesized pharmaceutical manufacturing facility subject to this Part shall repair all leaks from which a liquid containing VOC, can be observed running or dripping. The repair shall be completed the first time the equipment is off-line for a period of time long enough to complete the repair.

8.13.7 The provisions of this Part apply to all sources of VOCs, including reactors, distillation units, dryers, storage of VOCs, transfer of VOCs, extraction equipment, filters, crystallizers and centrifuges that

have the potential to emit 15 pounds per day or more.

8.14 Reserved (adopted March 13, 1997)

8.15 Leaks from Gasoline Tank Trucks and Vapor Collection Systems. (Amended April 23, 1992)

8.15.1 This Part is applicable to all vapor collection and control systems at bulk plants, bulk terminals, and gasoline dispensing facilities and to all vapor collection systems on gasoline tank trucks affected by these Parts.

8.15.2 After October 1, 1991, no person shall allow a gasoline tank truck subject to this Part to be filled or emptied unless the gasoline tank truck has:

(a) a vapor collection system that meets the test requirements of Paragraph 8.15.3(a); and

(b) a valid Air Sticker attached and visibly displayed; or,

8.15.3 Air Stickers for Gasoline Tank Trucks.

(a) The owner or operator of a vapor collection system subject to this Part shall not load or cause to be loaded the said gasoline tank truck without a valid Air Sticker for the gasoline tank truck. Air Stickers are issued by the Alabama Department of Environmental Management (ADEM) and the Jefferson County, Alabama, Department of Health for gasoline tank trucks upon receipt of appropriate documentation from the owner or operator documenting that the gasoline tank truck has been leak checked by the test method referenced in Section 8.19.11 and has, during the test, sustained a pressure change of no more than 3 inches of H_20 within five (5) consecutive minutes when pressurized to a gauge pressure of 18 inches of H_20 and, when evacuated to a gauge pressure of 6 inches of H_20 during the testing.

(b) The Air Sticker shall be renewed annually upon successful demonstration by the owner or operator that the gasoline tank truck has been leak checked and passed the requirements of Paragraph 8.15.3(a).

(c) The owner or operator shall display the Air Sticker near the Department of Transportation Certification plate required by 49 CFR 178.340-10b.

8.15.4 The owner or operator of a vapor collection system at a bulk plant, bulk terminal, gasoline dispensing facility or gasoline tank truck subject to this Part shall:

(a) design and operate the vapor collection system and the gasoline loading equipment in a manner that prevents:

(1) gauge pressure from exceeding 18 inches of H_2O and vacuum from exceeding 6 inches of H_2O in the gasoline tank truck;

(2) a reading equal to or greater than one hundred percent (100%) of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters from all points on the perimeter of a potential leak source when measured by the method referenced in Section 8.19.11 during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals; and

(3) avoidable visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals;

(b) and within fifteen (15) days, repair and retest a vapor collection or control system that exceeds the limit in Subparagraph 8.15.4(a)(2).

8.15.5 The Director may, at any time, monitor a gasoline tank truck, vapor collection system or vapor control system to confirm continuing compliance with Sections 8.15.2, 8.15.3 and 8.15.4. Monitoring to confirm the continuing existence of leak-tight conditions shall be consistent with the procedures described in Appendix B of the OAQPS Guideline Series document, "Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA-450/2-78-051.

8.15.6 Each vapor-laden gasoline tank truck shall be designed and maintained to be vapor-tight during loading, unloading operations, and transport with the exception of

normal pressure/vacuum venting as required by DOT regulations.

8.16 Leaks from Petroleum Refinery Equipment.
(adopted January 23, 1986)

8.16.1 The owner or operator of a petroleum refinery complex subject to this regulation shall develop and conduct a monitoring program consistent with Sections 8.16.5 through 8.16.12 inclusive.

8.16.2 The owner or operator of a petroleum refinery complex, upon detection of a leaking component, which has a VOC concentration exceeding 10,000 parts per million by volume shall:

(a) include the leaking component on a written list of scheduled repairs within twenty-four (24) hours; and,

(b) repair and retest the component within fifteen (15) days unless the leaking component cannot be repaired until the unit is shutdown for turnaround.

8.16.3 Except for safety pressure relief valves, no owner or operator of a petroleum refinery shall install a valve at the end of a pipe or line containing VOCs unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only when the line is in use (i.e., when a sample is being taken).

8.16.4 No owner or operator of a petroleum refinery shall operate a pipeline valve or pressure relief valve in gaseous VOC service unless it is marked in some manner that will be readily obvious to both refinery personnel performing monitoring and the Director.

8.16.5 The owner or operator of a petroleum refinery shall maintain a leaking components monitoring log which shall contain, at a minimum, the following data:

(a) the name of the process unit where the component is located.

(b) the type of component (e.g., valve, seal).

(c) the tag number of the component.

(d) the date on which a leaking component is discovered.

(e) the date on which a leaking component is repaired.

(f) the date and instrument reading of the recheck procedure after a leaking component is repaired.

(g) a record of the calibration of the monitoring instrument.

(h) those leaks that cannot be repaired until turnaround.

(i) the total number of components checked and the total number of components found leaking.

8.16.6 Copies of the monitoring log shall be retained by the owner or operator for a minimum of 2 years after the date on which the record was made or the report prepared.

8.16.7 Copies of the monitoring log shall immediately be made available to the Director, upon verbal or written request, at any reasonable time.

8.16.8 The owner or operator of a petroleum refinery, upon the completion of each yearly and/or quarterly monitoring procedure, shall:

(a) submit a report to the Director by the 15th day, of January, April, July, and October that lists all leaking components that were located during the previous 3 calendar months but not repaired within 15 days, all leaking components awaiting unit turnaround, the total number of components inspected, and the total number of components found leaking.

(b) submit a signed statement with the report attesting to the fact that, with the exception of those leaking components listed in Paragraph (a) of this Section, all monitoring and repairs were performed as stipulated in the monitoring program.

8.16.9 The Director, upon written notice, may modify the monitoring, recordkeeping and reporting requirements.

8.16.10 The owner or operator of a petroleum refinery subject to this regulation shall conduct a monitoring program consistent with the following provisions:

(a) monitor yearly all:

(1) pump seals;

(2) pipeline valves in liquid service; and

(3) process drains.

(b) monitor quarterly all:

(1) compressor seals;

(2) pipeline valves in gaseous service; and

(3) pressure relief valves in gaseous service.

(c) monitor weekly by visual methods all pump seals;

(d) monitor immediately any pump seal from which liquids are observed dripping;

(e) monitor any relief valve within twenty-four (24) hours after it has vented to the atmosphere; and

(f) monitor immediately after repair any component that was found leaking.

8.16.11 Pressure relief devices which are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves, and valves that are not externally regulated are exempt from the monitoring requirements in Section 8.16.10.

8.16.12 The owner or operator of a petroleum refinery, upon the detection of a leaking component, shall affix a weatherproof and readily visible tag, bearing an identification number and the date the leak is located, to the leaking component. This tag shall remain

in place until the leaking component is repaired.

8.16.13 This Part applies to all petroleum refineries.

8.17 Graphic Arts. (adopted January 23, 1986)

8.17.1 No owner or operator of a packaging rotogravure, printing rotogravure or flexographic printing facility subject to this Part and employing solvent containing ink may operate, cause, allow or permit the operation of the facility unless:

(a) the volatile fraction of ink, as it is applied to the substrate, contains twenty-five percent (25%) by volume or less of organic solvent and seventy-five percent (75%) by volume or more of water; or

(b) the facility prints with ink which contains sixty percent (60%) by volume or more non-volatile material; or,

(c) the owner or operator installs and operates:

(1) a carbon adsorption system which reduces the volatile organic emissions from the capture system by at least ninety percent (90%) by weight reduction efficiency, measured across the control system, that has been approved by the Director; or

(2) an incineration system which oxidizes at least ninety percent (90%) of the non-methane VOCs (VOC measured as total combustible carbon) to carbon dioxide and water; or

(3) an alternative VOC emission reduction system demonstrated to have at least a ninety percent (90%) reduction efficiency, measured across the control system, that has been approved by the Director.

8.17.2 A capture system must be used in conjunction with the emission control systems in Paragraph 8.17.1(c). The design and operation of a capture system must be consistent with good engineering practice, and shall be required to provide for an overall reduction in VOC emissions of at least:

(a) seventy-five percent (75%) where a publication rotogravure process is employed;

(b) sixty-five percent (65%) where a packaging rotogravure process is employed; or,

(c) sixty percent (60%) where a flexographic printing process is employed.

8.17.3 Provisions of this Part apply to packaging rotogravure, printing rotogravure, and flexographic printing facilities.

8.17.4 Packaging rotogravure, printing rotogravure or flexographic printing facilities with a potential volatile organic compound emission rate of less than 100 tons per year are exempt from the provisions of this Part.

8.18 Petroleum Liquid Storage in External Floating Roof Tanks. (adopted January 23, 1986)

8.18.1 No owner or operator of a petroleum liquid storage vessel having a capacity greater than 40,000 gallons and equipped with external floating roofs shall store a petroleum liquid in that vessel unless:

(a) the vessel has been fitted with:

(1) a continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or

(2) a closure or other device which controls VOC emissions with an effectiveness equal to or greater than a seal required under Subparagraph (a)(1) of this Section as approved by the Director.

(b) all seal closure devices meet the following requirements:

(1) there are no visible holes, tears, or other openings in the seal(s) or seal fabric;

(2) the seal(s) are intact and uniformly in place

around the circumference of the floating roof between the floating roof and tank wall; and,

(3) for vapor mounted seals, the area of accumulated gaps between the secondary seal and the tank wall shall not exceed 1.0 square inch per foot of tank diameter.

(c) all openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:

(1) equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and,

(2) equipped with projections into the tank which remain below the liquid surface.

(d) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;

(e) rim vents are set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting; and,

(f) emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least ninety percent (90%) of the area of the opening.

8.18.2 The owner or operator of a petroleum liquid storage vessel with an external floating roof subject to this Part shall:

(a) perform routine inspections semi-annually in order to insure compliance with Section 8.18.1 of this Part, and the inspections shall include a visual inspection of the secondary seal gap;

(b) measure the secondary seal gap annually when the floating roof is equipped with a vapor-mounted primary seal; and,

(c) maintain records of the throughput quantities and types of volatile petroleum liquids stored.

8.18.3 The owner or operator of a petroleum liquid storage vessel with an external floating roof not subject to this Part, but containing a petroleum liquid with a true vapor pressure greater than 1.0 psia, shall maintain records of the average monthly storage temperature, the type of liquid, through-put quantities, and the maximum true vapor pressure for all petroleum liquids with a true vapor pressure greater than 1.0 psia.

8.18.4 The owner or operator of a petroleum liquid storage vessel subject to this Part shall submit to the Director, as a minimum, an annual report detailing the results of routine monthly inspections, secondary seal gap measurements, and the amounts and physical properties of stored liquids.

8.18.5 Copies of all records and reports required under Sections 8.18.2, 8.18.3, and 8.18.4 of this Part shall be retained by the owner or operator for a minimum of two (2) years after the date on which the record was made or the report submitted.

8.18.6 The provisions of this Part apply to all petroleum liquid storage vessels having capacities greater than 40,000 gallons and equipped with external floating roofs.

8.19 Test Methods and Procedures. Refer to Section 8.19.3 for a listing of EPA reference VOC Test Methods. (Adopted April 23, 1992)

8.19.1 Determination of Volatile Organic Compound Content of Surface Coatings.

(a) This method applies to paint, varnish, lacquer, and surface coatings which are air-dried or force-dried.

(b) This method does not apply to any coating system requiring a special curing process such as:

(1) exposure to temperatures in excess of 110°C (230°F) to promote thermal cross-linking; or

(2) exposure to ultraviolet light to promote cross-linking.

(c) For the purposes of this method, the applicable surface coatings are divided into three classes. They are:

(1) Class I: General Solvent-Type Paints. This class includes white linseed oil outside paint, white soya and phthalic alkyd enamel, white linseed o-phthalic alkyd enamel, red lead primer, zinc chromate primer, flat white inside enamel, white epoxy enamel, white vinyl toluene modified alkyd, white amino modified baking enamel, and other solvent-type paints not included in Class II.

(2) Class II: Varnishes and Lacquers. This class includes clear and pigmented lacquers and varnishes.

(3) Class III: Water Thinned Paints. This class includes emulsion or latex paints and colored enamels.

(d) For the purposes of this method, a representative sample of the surface coating shall be obtained at the point of delivery to the coater or any other point in the process that the Director approves.

(e) The volatile organic content of the sample shall be determined as follows:

(1) assign the coating to one of the three classes in Paragraph 8.19.1(c). Assign any coating not clearly belonging to Class II or III to Class I.

(2) determine the density Dm (in grams/cubic centimeter) of the paint, varnish, lacquer, and related product according to the procedure outlined in ASTM 1475-60, Standard Method of Test for density of Paint, Varnish, Lacquer, and Related Products. Then, depending on the class of the coatings, use one of the following specified procedures to determine the volatile content:

(i) Class I. Use the procedure in ASTM 2369-73, Standard Method of Test for Volatile Content of Paints.

(A) Record the following information:

W_1 = Weight of dish and sample, grams

W_2 = Weight of dish and sample after heating, grams

S = Sample weight, grams.

(B) Compute the volatile organic content C_v (in grams/liter of paint) as follows:

$C_v = (W_1 - W_2)(Dm)(10^3) / S$

(C) To convert grams/liter to pounds/gallons, multiply

C_v by 8.3455×10^{-3}.

(ii) Class II. Use the procedure in ASTM D 1644-59, Method A, Standard Methods of Test for Non-volatile Content of Varnishes (Do not use Method B).

(A) Record the following information:

A = Weight of dish, grams

B = Weight of sample used, grams

C = Weight of dish and content after heating, grams.

(B) Compute the volatile organic content Cv (in grams/liter) as follows:

$C_v = (A + B - C)\ (Dm)\ (10^3) / B$

(C) To convert grams/liter to pounds/gallon, multiply C_v by 8.3455×10^{-3}.

(iii) Class III. Use the procedure in ASTM D 2369-73, Standard Method of Test for Volatile Content of Paints.

(A) Record the same information as specified in Subdivision 8.19.1(e)2(i).

(B) Determine the water content P (in percent water) of the paint according to the procedure outlined in Federal Standards 141a, Method 4082.1, Water in Paint and Varnishes (Karl Fisher Titration Method).

(C) Compute the non-aqueous volatile matter content C_v (in grams/liter) as follows:

$$C_v = (W_1 - W_2 - 0.01\ PS)(Dm)(10^3)\ /\ S$$

(D) To convert grams/liter to pounds/gallons,multiply C_v by 8.3455×10^{-3}

8.19.2 Test Procedure for Determination of VOC Emissions from Bulk Gasoline Terminals.

(a) Principle. VOC mass emissions are determined directly using flow meters and hydrocarbon analyzers. The volume of liquid gasoline dispensed is determined by computation based on the metered quantity of gasoline at the loading rack. Test results are expressed in milligrams of hydrocarbons emitted per liter of gasoline transferred.

(b) Summary of the Method. This method describes the test conditions and test procedures to be followed in determining the emissions from systems installed to control VOC vapors resulting from tank truck and trailer loading operations at bulk terminals. Under this procedure direct measurements are made to compute the hydrocarbon mass exhausted from the vapor control system. All possible sources of leaks are qualitatively checked to ensure that no uncontrolled vapors are emitted to the atmosphere. The results are expressed in terms of mass hydrocarbons emitted per unit volume of gasoline transferred. Emissions are determined on a total hydrocarbon basis. If methane is present in the vapors returned from the tank trucks or trailers, provisions are included for conversion to a total non-methane hydrocarbon basis.

(c) Applicability. This method is applicable to determining VOC emission rates at tank truck and trailer gasoline loading terminals employing vapor collection systems and either continuous or intermittent vapor control systems. This method is applicable to motor tank truck and trailer loading only as per Part 8.7.

(d) Apparatus. The components essential to the evaluation of emissions from gasoline loading terminals are:

(1) portable combustible gas detector equipped to read zero (0) to one hundred percent (100%) of the lower explosive limit,

(2) flexible thermocouple with recorder,

(3) gas volume meter, sized for the expected exhaust flow rate and range,

(4) total hydrocarbon analyzer with recorder (flame ionization detector or non-dispersive infrared equipped to read zero (0) to ten percent (10%) by volume hydrocarbon as propane for vapor control systems which recover the vapor liquid, or 0 to 10,000 ppmv hydrocarbon as propane for incineration vapor control systems),

(5) barometer to measure atmospheric pressure,

(6) gas chromatograph/flame ionization detector with a column to separate C_1 - C_7 alkanes (used if methane is present in recovered vapors or if incineration is the vapor control technique).

(e) Test Requirements:

(1) No less than three 8-hour repetitions will be performed.

(2) During the test period, all loading racks shall be open for each product line that is controlled by the system under test. Simultaneous use of more than one loading rack shall occur to the extent that such would normally occur.

(3) Simultaneous use of more than one dispenser on each loading rack shall occur to the extent that such use would normally occur.

(4) Dispensing rates shall be set at the maximum rate at which the equipment is designed to be operated. Automatic product dispensers are to be used according to

normal operating practices.

(5) Applicable operating parameters of the vapor control system shall be monitored to demonstrate that the control unit is operating at design levels. For intermittent vapor control systems employing a vapor holder, each test repetition shall include at least one fully automatic operation cycle of the vapor holder and control device. Tank trucks and trailers shall be essentially leak free as determined by the Director.

(f) Basic Measurements Required. The basic measurements essential to the evaluation of emissions from gasoline loading terminals are:

(1) the amount of gasoline dispensed from gasoline dispensers,

(2) leak check of all fittings and vents,

(3) the following items for the processing unit exhaust:

(i) temperature,

(ii) pressure,

(iii) volume of vapors,

(iv) hydrocarbon concentration of vapors, if methane is present, in recovered vapors.

(g) Test Procedure.

(1) Calibrate and span all instruments as outlined under Paragraph 8.19.2(i).

(2) Install an appropriately sized gas meter on the exhaust vent of the vapor control system. For those vapor control systems where restrictions preclude the use of a volume meter or when incineration is used for vapor control a gas flow rate meter (orifice pitot tube, annubar, etc.) is necessary. At the meter inlet, install a thermocouple with recorder. Install a tap at the volume meter outlet. Attach a sample line for total hydrocarbon analyzer (0 to 10 percent) as propane to this

tap. If the meter pressure is different than barometric pressure, install a second tap at the meter outlet and attach an appropriate manometer for pressure measurement. If methane analysis is required, install a third tap for connection to a constant volume sample pump/evacuated bag assembly as described in 40 CFR 36.247, Method 3, December 23, 1977.

(3) Measurements and data required for evaluating emissions from the system:

(i) at the beginning and end of each test repetition, record the volume readings on each product dispenser on each loading rack served by the system under test;

(ii) at the beginning of each test repetition and each two (2) hours thereafter, record the ambient temperature and the barometric pressure;

(iii) for intermittent vapor control systems employing a vapor holder, the unit shall be manually started and allowed to process vapors in the holder until the lower automatic cut-off is reached. This cycle should be performed immediately prior to the beginning of the test repetition before readings under Subdivision 8.19.2(g)(3)(i) are taken. No loading shall be in progress during this manual cycle;

(iv) for each cycle of the vapor control system during each test repetition, record the start and stop time, the initial and final gas meter readings, and the average vapor temperature, pressure and hydrocarbon concentration. If a flow rate meter is used, record flow meter readouts continuously during the cycle. If required, extract a sample continuously during each cycle for chromatographic analysis for specific hydrocarbons;

(v) for each tank truck or trailer loading during the test period, check all fittings and seals on the tanker compartments with the combustible gas detector. Record the maximum combustible gas reading for any incidents of leakage of hydrocarbon vapors. Explore the entire periphery of the potential leak source with the sample hose inlet 1 cm (0.4 inches) away from the interface;

(vi) during each test period, monitor all possible sources of leaks in the vapor collection and control systems with the combustible gas indicator. Record the location and combustible gas reading for any incidents of leakage;

(vii) for intermittent vapor control systems, the control unit shall be manually started and allowed to process vapors in the holder until the lower automatic shutoff is reached at the end of each test repetition. Record the data required under Subdivision 8.19.2(g)(3)(iv) for this manual cycle. No loading shall be in progress during this manual cycle.

(h) Calculations.

(1) Terminology:

T_a = Ambient temperature (°C)

P_b = Barometric pressure (mm Hg)

L_t = Total volume of liquid dispensed from all controlled racks during the test period (liters)

V_e = Volume of air-hydrocarbon mixture exhausted from the processing unit (M^3)

V_{es} = Normalized volume of air-hydrocarbon mixture exhausted NM^3 @ 20°C, 760 mm Hg

C_e = Volume fraction of hydrocarbons in exhausted mixture (volume % as C_3H_8 / 100, corrected for methane content if required)

T_e = Temperature at processing unit exhaust (°C)

P_e = Pressure at processing unit exhaust (mm Hg abs)

$(M/L)_e$ = Mass of hydrocarbons exhausted from the processing unit per volume of liquid loaded (mg/l).

(2) Calculate the following results for each period of the vapor control system operation:

(i) Volume of air-hydrocarbon mixture exhausted from the vapor control system:

$$V_e = V_{ef} - V_{ei}; \text{ or}$$

V_e = totalized volume from flow rate and time records

(ii) normalized volume of exhausted mixture:

$$V_{es} = (0.3858 \text{ K/mmHg})(V_e)(P_e) \ / \ (T_e + 273.2)$$

(iii) mass of hydrocarbons exhausted from the vapor control system:

$$M_e = [1.833 \text{ X } 10^6 \ (C_3H_8) \ / \ NM_3 \ (C_3H_8)](V_{es})(C_e)$$

(3) calculate the average mass of hydrocarbons emitted per volume of gasoline loaded:

$$(M/L)_e = M_e \ / \ L_t$$

(i) Calibrations.

(1) Flow meters shall be calibrated using standard methods and procedures which have been approved by the Director.

(2) Temperature recording instruments shall be calibrated prior to a test period and following the test period using an ice bath (0°C) and a known reference temperature source of about 35°C. Daily during the test period, use an accurate reference to measure the ambient temperature and compare the ambient temperature reading of all other instruments to this value.

(3) Manufacturer's instructions concerning warm-up and adjustments shall be followed for total hydrocarbon analyzers. Prior to and immediately after the emission test, perform a comprehensive laboratory calibration on each analyzer used. Calibration gases should be propane in nitrogen prepared gravimetrically with mass quantities of approximately one hundred percent (100%) propane. A calibration curve shall be provided using a minimum of five (5) prepared standards in the

range of concentrations expected during testings;

(i) For each repetition, zero with zero gas (3 ppm C) and span with seventy percent (70%) propane for instruments used in the vapor lines and with ten percent (10%) propane for instruments used at the vapor control system exhaust.

(ii) The zero and span procedure shall be performed at least once prior to the first test measurements, once during the middle of the run, and once following the final test measurement for each run.

(iii) Conditions in calibration gas cylinders must be kept such that condensation of propane does not occur. A safety factor of two (2) for pressure and temperature is recommended.

8.19.3 Test Methods and Procedures for Graphic Arts.

(a) The owner or operator of a VOC source shall, at his own expense, demonstrate compliance with Part 8.17 by the methods in Paragraph 8.19.3 (c) or an alternative method approved by the Director. All tests shall be conducted by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) A person proposing to conduct a VOC emissions test shall notify the Director of the intent to test not less than thirty (30) days before the proposed initiation of the tests so the Director may at his option observe the test. The notification shall contain the information required by, and be in a format approved by, the Director.

(c) Test procedures to determine compliance with Part 8.17 must be approved by the Director and consistent with:

(1) EPA Guideline Series document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-041; and

(2) Appendix A of "Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics,

Automobiles, and Light-Duty Trucks," EPA-450/2-77-008.

(d) The Director may accept, instead of ink solvent analysis, a certification by the ink manufacturer of the composition of the ink solvent, if supported by actual batch formulation records.

(e) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(1) exhaust gas temperatures of all incinerators;

(2) temperature rise across a catalytic incinerator bed;

(3) breakthrough of VOC on a carbon adsorption unit; and,

(4) any other continuous monitoring or recording device required by the Director.

8.19.4 Test Methods and Procedures for Petroleum Liquid Storage in Floating Roof Tanks.

(a) The owner or operator of any VOC source required to comply with Chapter 8 shall, at his own expense, demonstrate compliance by the methods of this section or an alternative method approved by the Director. All tests shall be conducted by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) A person proposing to conduct a VOC emissions test shall notify the Director of the intent to test not less than thirty (30) days before the proposed initiation of the tests so the Director may at his option observe the test. The notification shall contain the information required by, and be in a format approved by, the Director.

(c) Compliance with Chapter 8 shall be determined by:

(1) physically measuring the length and width of all gaps around the entire circumference of the secondary

seal in each place where a 0.32 centimeter (1/8 inch) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall; and,

(2) summing the area of the individual gaps.

8.19.5 Testing and Monitoring Procedures for the Manufacture of Pneumatic Rubber Tires.

(a) The owner or operator of a VOC source required to comply with this Chapter shall, at his own expense demonstrate compliance by the methods of Paragraphs 8.19.5(c)(d), or an alternative method approved by the Director. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) A person proposing to conduct a VOC emissions test shall notify the Director of the intent to test no less than thirty (30) days before the proposed initiation of the tests so the Director may, at his option, observe the test. The notification shall contain the information required by, and be in a format approved by, the Director.

(c) Test procedures to determine compliance with Chapter 8 must be approved by the Director and be consistent with:

(1) EPA Guideline Series document, "Measurement of Volatile Organic Compounds", EPA-450/2-78-041; and,

(2) Appendix A of "Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks," EPA-450/2-77-008.

(d) The Director may accept, instead of analyses of spray, cement, or other compounds, a certification by the manufacturer of the composition of the spray, cement, or other compounds, if supported by actual batch formulation records.

(e) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(1) exhaust gas temperatures of all incinerators;

(2) temperature rise across a catalytic incinerator bed;

(3) breakthrough of VOC on a carbon adsorption unit; and,

(4) any other continuous monitoring or recording device required by the Director.

8.19.6 Determination of Volatile Organic Compound Emission Control System Efficiency.

(a) The provisions of this Section shall be applicable to any test method employed to determine the collection or control efficiency of any device or system designed, installed, and operated for the purpose of reducing volatile organic compound emissions.

(b) An efficiency demonstration shall include, but not be limited to, the following methods and procedures:

(1) The volatile organic compound containing material shall be sampled and analyzed by EPA approved methods and procedures under 40 CFR 60, Appendix A such that the quantity of emission that could result from the use of the material can be quantified. For paints, inks, and other related coatings, the test methods and procedures shall be in accordance with Section 8.19.1

(2) The efficiency of any capture system used to transport the VOC emissions from their point of origination to the control equipment shall be computed by using accepted engineering practice.

(3) Samples of the volatile organic compound containing gas stream shall be taken simultaneously at the inlet and outlet of the emissions control device.

(4) The total combustible carbon content of the samples shall be determined by one of the following methods:

(i) Reference Method 25.

(ii) Reference Method 25A.

(iii) Reference Method 25B.

(5) the efficiency of the control device shall be expressed as the fraction of total combustible carbon content reduction achieved; and

(6) the volatile organic compound mass emission rate shall be the sum of emissions from the control device, emissions not collected by the capture system, and capture system losses.

(c) A person proposing to conduct a VOC emission control system efficiency test shall notify the Director of the intent to test not less than thirty (30) days before the proposed initiation of the tests so the Director may at his option observe the test. The notification shall contain the information required by, and in a format approved by, the Director.

8.19.7 Determination of Solvent Metal Cleaning Volatile Organic Compound Emissions.

(a) This method shall be applicable to determining volatile organic compound emissions from solvent metal cleaning equipment.

(b) The purpose of this method is to quantify, by material balance, the amount of solvent input into a degreaser over a sufficiently long period of time so that an average emission rate can be computed.

(c) The following procedure shall be forwarded to perform a material balance test:

(1) clean the degreaser sump before testing.

(2) record the amount of solvent added to the tank with a flow meter.

(3) record the weight and type of work load degreased each day.

(4) at the end of the test run, pump out the used solvent and measure the amount with a flow meter. Also, estimate the volume of metal chips and other material remaining in the emptied sump, if significant.

(5) bottle a sample of the used solvent and analyze it to find the percent that is oil and other contaminants. The oil and solvent proportions can be estimated by weighing samples of used solvent before and after boiling off the solvent. Compute the volume of oils in the used solvent. The volume of solvent displaced by this oil along with the volume of make-up solvent added during operations are equal to the solvent emission.

8.19.8 Test Methods and Procedures for Surface Coating of Miscellaneous Metal Parts and Products.

(a) The owner or operator of a VOC source required to comply with Section 8.11.10 shall, at his own expense, demonstrate compliance by the methods of Paragraph 8.19.8(c), or an alternative method approved by the Director. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) A person proposing to conduct a VOC emissions test shall notify the Director of the intent to test not less than thirty (30) days before the proposed initiation of the tests so the Director may at his option observe the test. The notification shall contain the information required by, and be in a format approved by, the Director.

(c) Test procedures to determine compliance with Section 8.11.10 must be approved by the Director and be consistent with:

(1) EPA Guideline Series document, "Measurement of Volatile Organic Compounds" EPA-450/2-78-041.

(2) Appendix A of "Control of Volatile Organic

Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks," EPA-450/2-77-008.

(d) The Director may accept, instead of coating analysis required by Subparagraph 8.19.8(c)2., a certification by the manufacturer of the composition of the coatings, if supported by actual batch formulation records.

(e) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(1) exhaust gas temperatures of all incinerators;

(2) temperature rise across a catalytic incinerator bed;

(3) breakthrough of VOC on a carbon adsorption unit; and,

(4) any other continuous monitoring or recording device required by the Director.

8.19.9 Reserved (amended March 13, 1997)

8.19.10 Test Methods and Procedures for the Manufacture of Synthesized Pharmaceutical Products.

(a) The owner or operator of any VOC source required to comply with Part 8.13 shall, at his own expense, demonstrate compliance by the methods of Paragraph 8.19.10(c) or an alternative method approved by the Director. All tests shall be conducted by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) A person proposing to conduct a VOC emissions test shall notify the Director of the intent to test not less than thirty (30) days before the proposed initiation of the tests so the Director may, at his option, observe the test. The notification shall contain the information required by, and in a format approved by, the Director.

(c) Test procedures to determine compliance with Part 8.13 must be approved by the Director and consistent with EPA Guideline Series document, Measurement of Volatile Organic Compounds," EPA-450/2-78-041, and "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products," EPA-450/2-78-029.

(d) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(1) exhaust gas temperature of all incinerators;

(2) temperature rise across a catalytic incinerator bed;

(3) breakthrough of VOC on a carbon adsorption unit; and,

(4) any other continuous monitoring or recording device required by the Director.

8.19.11 Test Methods and Procedures for Leaks from Gasoline Tank Trucks and Vapor Collection Systems.

(a) The owner or operator of a VOC source shall, at his own expense, demonstrate compliance with Part 8.15 by the methods of Paragraph 8.19.11(c) or an alternative method approved by the Director. All tests shall be conducted by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) The owner or operator of a gasoline tank truck subject to Chapter 8 must notify the Director in writing of the date and location of a certification test at least ten (10) days before the anticipated test date. In order to observe a certification test, the Director may postpone or reschedule the certification test date by written notice to the owner or operator within five (5) days after receipt of certification test notification.

(c) Test methods and procedures shall be consistent with one of the following methods and procedures:

(1) Reference Method 27.

(2) EPA Guideline Series document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA-450/2-78-051.

8.19.12 Testing and Monitoring Procedures for the Surface Coating of Flatwood Paneling.

(a) The owner or operator of a VOC source required to comply with Section 8.11.9 shall, at his own expense, demonstrate compliance by the methods of Paragraphs 8.19.13(c) and (d) or an alternative method approved by the Director. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

(b) A person proposing to conduct a VOC emissions test shall notify the Director of the intent to test not less than thirty (30) days before the proposed initiation of the tests so the Director may, at his option, observe the test. The notification shall contain the information required by, and be in a format approved by, the Director.

(c) Test procedures to determine compliance with Section 8.11.9 must be approved by the Director and be consistent with:

(1) EPA Guideline Series document, "Measurement of Volatile Organic Compounds", EPA-450/2-78-041; and,

(2) Appendix A of "Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks," EPA-450/2-77-008.

(d) The Director may accept, instead of coating analysis required by Subparagraph 8.19.13(c)2., a certification by the coating manufacturer of the composition of the coating, if supported by actual batch formulation records.

(e) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that

the associated control equipment is operating:

(1) exhaust gas temperatures of all incinerators;

(2) temperature rise across a catalytic incinerator bed;

(3) breakthrough of VOC on a carbon adsorption unit; and,

(4) any other continuous monitoring or recording device required by the Director.

8.19.13 EPA Reference VOC Test Methods

Reference Method 1, "Sample and Velocity Traverses for Stationary Sources," 40 CFR 60, Appendix A.

Reference Method 1A, "Sample and Velocity Traverses for Stationary Sources with Small Stacks or Ducts," 40 CFR 60 Appendix A.

Reference Method 2, "Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)," 40 CFR 60, Appendix A.

Reference Method 2A, "Direct Measurement of Gas Volume Through Pipes and Small Ducts," 40 CFR 60, Appendix A.

Reference Method 2B, "Determination of Exhaust Gas Volume Flow Rate from Gasoline Vapor Incinerator," 40 CFR 60, Appendix A.

Reference Method 2C, "Determination of Stack Gas Velocity and Volumetric Flow Rate from Small Stacks or Ducts (Standard Pitot Tube)," 40 CFR 60, Appendix A.

Reference Method 2D, "Measurement of Gas Volume Flow Rates In Small Pipes and Ducts," 40 CFR 60, Appendix A.

Reference Method 3, "Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight," 40 CFR 60, Appendix A.

Reference Method 3A, "Determination of Oxygen and

Carbon Dioxide Concentrations in Emissions From Stationary Sources (Instrumental Analyzer Procedure)," 40 CFR 60, Appendix A.

Reference Method 4, "Determination of Moisture Content in Stack Gases," 40 CFR 60, Appendix A.

Reference Method 18, "Determination of Gaseous Organic Compounds by Gas Chromatography," 40 CFR 60, Appendix A.

Reference Method 21, "Determination of Volatile Organic Compound Leaks," 40 CFR 60, Appendix A.

Reference Method 23, "Determination of Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans from Stationary Sources", 40 CFR 60, Appendix A.

Reference Method 24, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, 40 CFR 60, Appendix A.

Reference Method 24A, "Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings," 40 CFR 60, Appendix A.

Reference Method 25, "Determination of Total Gaseous Non-methane Organic Emissions as Carbon, 40 CFR 60, Appendix A.

Reference Method 25A, "Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer," 40 CFR 60, Appendix A.

Reference Method 25B, "Determination of Total Gaseous Organic Concentrations Using a Non-dispersive Infrared Analyzer," 40 CFR 60, Appendix A.

Reference Method 27, "Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test," 40 CFR 60, Appendix A.

8.19.14 Capture Efficiency Test Procedures for Volatile Organic Compound Emissions Capture and Control Systems.

(a) For the purposes of this Section, the following definitions and abbreviations apply:

(1) "Capture" means the containment or recovery of emissions from a process for direction into a duct which may be exhausted through a stack or sent to a control device.

(2) "Capture Efficiency" means the weight per unit time of VOC entering a capture system and delivered to a control device divided by the weight per unit time of total VOC generated by a source of VOC, expressed as a percentage.

(3) "Control System" means a combination of one or more capture system(s) and control devices working in concert to reduce discharges of pollutants to the ambient air.

(4) "Destruction or Removal Efficiency" means the efficiency, expressed as a decimal fraction, of a control device in destroying or removing contaminants calculated as one minus the amount of VOC exiting the control device divided by the amount of VOC entering the control device, e.g., [1-(10ppm/100ppm)].

(5) "Gas/Gas Method" means either of two methods for determining capture which rely only on gas phase measurements. One method requires construction of a temporary total enclosure (TTE) to assure all would be fugitive emissions are measured while the other uses the room or building which houses the emission source as an enclosure.

(6) "Hood" means a device used to ventilate process equipment by capturing emissions of heat or air contaminants, e.g. organic vapors or other fumes, which are then conveyed through exhaust system ductwork to a more convenient discharge point or to air pollution control equipment.

(7) "Liquid/Gas Method" means either of two methods for determining capture which require both gas phase and liquid phase measurements and analysis. One liquid/gas method requires construction of a temporary

total enclosure, the other uses the building or room which houses the facility as a permanent total enclosure.

(8) "Overall Emission Reduction Efficiency" means the weight per unit time of VOC removed by a control device divided by the weight per unit time of VOC emitted by an emission source, expressed as a percentage. The overall emission reduction efficiency is the product of the capture efficiency and the control equipment destruction or removal efficiency.

(9) "Method 204D" is the EPA-approved test procedure to determine the fugitive volatile organic compound (VOC) emissions from temporary total enclosures (TTE). It is intended to be used as a segment in the development of liquid/gas or gas/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations.

(10) "Method 204E" is the EPA-approved test procedure to determine the fugitive volatile organic compound (VOC) emissions from a building enclosure (BE). It is intended to be used as a segment in the development of liquid/gas or gas/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations.

(11) "Method 204B" is the EPA-approved test procedure to determine the volatile organic compounds (VOC) content of captured gas streams. It is intended to be used as a segment in the development of liquid/gas or gas/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations. The procedure may not be acceptable in certain site-specific situations, e.g., when (1) direct fired heaters or other circumstances affect the quantity of VOC at the control device inlet; and (2) particulate organic aerosols are formed in the process and are present in the captured emissions.

(12) "Method 204C" is the EPA-approved test procedure to determine the volatile organic compounds (VOC) content of captured gas streams. It is intended to be used as a segment in the development of gas/gas protocols in which fugitive VOC emissions are measured for determining VOC capture efficiency (CE) for surface

coating and printing operations. A dilution system is used to reduce the VOC concentration of the captured emissions to about the same concentration as the fugitive emissions. The procedure may not be acceptable in certain site-specific situations, e.g., when (1) direct fired heaters or other circumstances affect the quantity of VOC at the control device inlet; and (2) particulate organic aerosols are formed in the process and are present in the captured emissions.

(13) "Method 204A and 204F" are the EPA-approved test procedure to determine the input of volatile organic compounds (VOC) to a VOC emitting process. It is intended to be used as a segment in the development of liquid/gas protocols for determining VOC capture efficiency (CE) for surface coating and printing operations.

(14) "Method 204" is the EPA-approved procedure to determine whether a permanent or temporary enclosure meets the criteria of a total enclosure.

(15) "F" shall be an abbreviation for the mass of VOC leaving the process as gaseous fugitive emissions.

(16) "G" shall be an abbreviation for the mass of VOC captured and delivered to a control device.

(17) "L" shall be an abbreviation for the mass of VOC input to the process in liquid form.

(18) "PTE" shall be an abbreviation for a permanent total enclosure, which contains a process that emits VOC and meets the specifications in Method 204.

(19) "TTE" Shall be an abbreviation for a temporary total enclosure which is built around a process that emits VOC and meets the specifications given in Method 204.

(20) "BE" shall be an abbreviation for a building or room enclosure that contains a process that emits VOC. If a BE is to serve as a PTE or TTE, the appropriate requirements given in Method 204 shall be met.

(b) Applicability.

(1) The requirements of Paragraph 8.19.14 (c) shall apply to all regulated VOC emitting processes employing a control system except as provided below.

(2) If a source installs a PTE that meets EPA specifications, and which directs all VOC to a control device, the capture efficiency is assumed to be 100 percent, and the source is exempted from the requirements described in Paragraph 8.19.6(c). The EPA specifications to determine whether a structure is considered a PTE are given in Method 204. This does not exempt a source from performance of any control device efficiency testing required under these or any other regulations. In addition, a source shall demonstrate that all criteria for a PTE are met during the testing for control efficiency.

(3) If a source uses a control device designed to collect and recover VOC (e.g. carbon adsorber), an explicit measurement of capture efficiency is not necessary if the conditions given below are met. The overall control of the system can be determined by directly comparing the input liquid (L) to the recovered liquid VOC. The general procedure for use in this situation is given in 40 CFR 60.433 with the following additional restrictions:

(i) the source shall be able to equate solvent usage with solvent recovery on a 24-hour (daily) basis , rather than a 30-day weighted average as given in 40 CFR 60.433. This shall be done within 72 hours following each 24-hour period. In addition, one of the following two criteria shall be met:

(ii) the solvent recovery system (i.e., capture and control system) shall be dedicated to a single process line (e.g., one process line venting to a carbon adsorber system), or

(iii) If the solvent recovery system controls multiple process lines, the source shall be able to demonstrate that the overall control (i.e., the total recovered solvent VOC divided by the sum of liquid VOC input to all process lines venting to the control system) meets or exceeds the most stringent standard applicable

for any process line venting to the control system.

(c) Specific requirements:

(1) The capture efficiency of a process line shall be measured using one of the four protocols given in Subparagraph 8.19.14(c)(3).

(2) Any error margin associated with a test protocol may not be incorporated into the results of a capture efficiency test.

(3) The four specific capture efficiency protocols are discussed in Subdivisions 8.19.14(c)(3)(i) through 8.19.14(c)(3)(iv). Any affected source shall use one of these protocols to measure capture efficiency, unless a suitable alternative protocol is approved by EPA as a SIP revision.

(i) Gas/Gas Method using TTE. The EPA specifications to determine whether a temporary enclosure is considered a TTE are given in Method 204. The capture efficiency equation to be used for the Protocol is:

$$CE = G_w / (G_w + F_w)$$

Where: CE = capture efficiency, decimal fraction

G_w = mass of VOC captured and delivered to the control device using a TTE. Method 204C is used to obtain G_w.

F_w = mass of fugitive VOC that escapes from a TTE. Method 204D is used to obtain F_w

(ii) Liquid/Gas Method using TTE. The EPA specifications to determine whether a temporary enclosure is considered a TTE are given in Method 204. The capture efficiency equation to be used for this Protocol is:

$$CE = (L - F) / L$$

Where: CE = capture efficiency, decimal fraction.

L = mass of liquid VOC input to the process. Procedure L is used to obtain L.

F = mass of fugitive VOC that escapes from a TTE. Method 204D is used to obtain F.

(iii) Gas/Gas Method using the building or room (BE) in which the affected source is located as the enclosure and in which G and F are measured while operating only the affected facility. All fans and blowers in the building or room shall be operated as they would under normal production. The capture efficiency equation to be used for this Protocol is:

$$CE = G / (G + F_b)$$

Where: CE = capture efficiency, decimal fraction.

G = mass of VOC captured and delivered to a control device. Method 204C is used to obtain G.

F_b = mass of fugitive VOC that escapes from building enclosure. Method 204E is used to obtain F_b.

(iv) Liquid/Gas Method using the building or room (BE) in which the affected source is located as the enclosure and in which L and F are measured while operating only the affected facility. All fans and blowers in the building or room shall be operated as they would under normal production. The capture efficiency equation to be used for this protocol is:

$$CE = (L - F_b) / L$$

Where: CE = capture efficiency, decimal fraction.

L = mass of liquid VOC input to the process. Method 204A or F are used to obtain L.

F_b = mass of fugitive VOC that escapes from building enclosure. Method 204E is used to obtain F_b.

(d) Recordkeeping and Reporting.

(1) The owner or operator of all affected facilities shall maintain a copy of the capture efficiency protocol submitted to the Director on file. All results of appropriate test methods and CE procedures

shall be reported to the Director within thirty (30) days of the test date. These records shall be retained by the owner or operator for a minimum of three (3) years after the test date.

(2) Prior to making any changes to the capture or control equipment of an affected source, the owner or operator of the source shall notify the Director in writing of these changes in accordance with the permitting requirements under Rule 3.1.

(3) The owner or operator of an affected source shall notify the Director thirty (30) days prior to performing any capture efficiency test and/or control efficiency tests.

(4) An affected source utilizing a PTE shall demonstrate that this enclosure meets the requirement given in Method 204 for a PTE during any testing of a control system.

(5) An affected source utilizing a TTE shall demonstrate that its TTE meets the requirements given in Method 204 for a TTE during the test of their control system. The source shall also provide documentation that the quality assurance criteria for a TTE have been achieved.

CHAPTER 9. CONTROL OF CARBON MONOXIDE EMISSIONS

9.1 Metal Production. No person shall emit the carbon monoxide gases generated during the operation of a grey iron cupola, blast furnace, or basic oxygen steel furnace unless they are burned at 1300°F for 0.3 seconds or greater in a direct flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.

9.2 Petroleum Processes. No person shall emit carbon monoxide in the waste gas stream from any catalyst regeneration of a petroleum cracking system, petroleum fluid coker, or other petroleum process into the atmosphere, unless the waste gas stream is burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner, or boiler, equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.

CHAPTER 10. CONTROL OF NITROGEN OXIDES EMISSIONS
(amended August 26, 1976)

Reserved

CHAPTER 11. CONTROL OF EMISSIONS FROM MOTOR VEHICLES

11.1 Visible Emission Restrictions for Motor Vehicles.

11.1.1 No persons shall cause or permit the emission of visible air contaminants from gasoline-powered motor vehicles, operated upon any street, highway, or other public place, for longer than 5 consecutive seconds.

11.1.2 No person shall cause or permit the emission of visible air contaminants from diesel-powered motor vehicles and other movable sources, of a shade or density greater than 20 percent opacity for longer than 5 consecutive seconds.

11.1.3 Uncombined Water. Where the presence of uncombined water is the only reason for failure of an emission to meet the requirements of this Part, such section shall not apply.

11.2 Ignition System and Engine Speed. All 1968 and subsequent model year gasoline powered motor vehicles shall be maintained so as to be in compliance with the following requirements:

11.2.1 The number of revolutions per minute of an engine while operating at idle speed shall be in accordance with the specifications and determined under conditions published by the manufacturer, but in no case shall the idle speed be less than the minimum specified in such published specifications. Revolutions per minute shall be tested for accuracy and precision at reasonable intervals.

11.2.2 Ignition timing of an engine shall comply with the published specifications of the manufacturer as determined in accordance with procedures and conditions specified by the manufacturer.

11.2.3 All cylinders shall be firing.

11.3 Crankcase Ventilation Systems. The positive crankcase ventilation system on all 1968 and subsequent model year gasoline powered motor vehicles, except motorcycles and motor tricycles, and all 1969 and subsequent model year gasoline powered motor vehicles, including motorcycles and motor tricycles, shall meet the following requirements:

11.3.1 The plumbing and connections shall be properly connected as installed by the manufacturer and free of obstructions and leakage.

11.3.2 There shall be a negative pressure (suction) at the inlet of the crankcase ventilation valve.

11.3.3 The crankcase ventilation valve shall be freely operative so as to regulate the flow of gases through the system.

11.4 Exhaust Emission Control Systems.

11.4.1 Air Injection System. Exhaust emission control air injection systems on those gasoline powered motor vehicles so equipped by the manufacturer shall operate so that:

(a) the air delivery hoses, connections, and air distribution manifold shall be properly connected as installed by the manufacturer and free of obstructions and leakage.

(b) the air compressor drive belt tension shall be within manufacturer's specifications.

(c) there is a positive air flow from the air pump to the air delivery distribution manifold.

(d) the check valve prevents any reverse air flow from the air distribution manifold out through the check valve inlet.

(e) the anti-backfire valve, gulp-valve, air bypass valve, or other similar device with the same function permits the passage of air from the air pump to the exhaust manifold or manifolds, except when the carburetor throttle is closed rapidly from an open position as in deceleration.

11.4.2 Engine Modification Systems. All vacuum control valves, vacuum lines, mechanical linkage, electrical circuits and switches peculiar to certain engine modification systems shall be properly connected as installed on all 1968 and subsequent model year gasoline powered motor vehicles so equipped by the manufacturer.

11.4.3 Other Exhaust Emission Control Systems. Any other exhaust emission control system, other than air injection or engine modification, which is installed or incorporated in a motor vehicle in compliance with Federal motor vehicle pollution control regulations shall be maintained in good operable conditions as specified by the manufacturer and shall be used at all times that the motor vehicle is operated.

11.4.4 The requirements of this Part shall apply to all gasoline powered motor vehicles with the following exceptions:

(a) vehicles of 1967 or earlier model year.

(b) vehicles not equipped by the manufacturer with exhaust emission control air injection systems.

(c) motor vehicles with an engine displacement of less than 50 cubic inches (819.35 cubic centimeters).

11.5 Evaporative Loss Control Systems. The evaporative loss control systems or devices designed and installed on 1972 and subsequent model year gasoline powered motor vehicles shall be maintained in an operable condition such that the system or device continues to reduce or prevent the emission to the atmosphere of the vapors of the hydrocarbon fuel contained in the fuel tank, carburetor, and/or fuel pump of the motor vehicle.

11.6 Other Prohibited Acts. In addition to the other strictures contained in this Chapter, no person shall cause, suffer, allow, or permit the removal, disconnection, and/or disabling of a positive crankcase ventilator, exhaust emission control system, or evaporative loss control system which has been installed on a motor vehicle, nor shall any person defeat the design purpose of any such motor vehicle pollution control device by installing therein or thereto any part or component which is not a comparable replacement part or component of the device. Provided that:

11.6.1 the components or parts of emission control systems on motor vehicles may be disassembled or reassembled for the purpose of repair and maintenance in proper working order.

11.6.2 components and parts of emission control systems may be removed and replaced with like components and parts intended by the manufacturer for such replacement.

11.6.3 the provisions of this Part shall not apply to salvage operations on wrecked motor vehicles when the engine is so damaged that it will not be used again for the purpose of powering a motor vehicle on a highway.

11.7 Effective Date. The provisions of this Chapter shall become effective immediately upon their adoption and promulgation.

CHAPTER 12. CONTROL OF PESTICIDES EMISSIONS
(adopted May 22, 1975, revoked May 22, 1980)

CHAPTER 13. STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES (Amended March 10, 2016)

13.1 General.

13.1.1 The Environmental Protection Agency Regulations, and the appendices applicable thereto, governing Standards of Performance for New Stationary Sources (40 CFR Part 60, and Appendices) designated in Part 13.2 are incorporated by reference as they exist in 40 CFR 60 (July 1,2015), and as amended by the word or phrase substitutions given in Part 13.3. References for specific documents containing the complete text of subject regulations are given in Appendix A to these regulations.

[NOTE: The standards pertaining to the Consolidated Federal Air Rule are located in Chapter 15.]

13.1.2 In the event of any conflict between the regulations contained in this chapter and regulations contained in other chapters, the more stringent regulations will take precedence.

13.1.3 Chapters 5, 6, 7, 8, 9, and 10 shall not apply to source categories subject to this Chapter for the specific pollutants to which a standard under this Chapter applies.

13.1.4 Definitions. For the purposes of this Chapter, the definitions listed in Section 60.2 Subpart A, Part 60, Title 40 of the Code of Federal regulations will apply.

13.2 Designated Standards of Performance.

Subpart A – General Provisions.

Subpart D - Fossil Fuel-Fired Steam Generators for which construction is commenced after August 17, 1972.

Subpart Da - Electric Utility Steam Generating Units for which construction is commenced after September 18, 1978,

Subpart Db - Industrial - Commercial - Institutional Steam Generating Units.

Subpart Dc - Small Industrial-Commercial-Institutional

Steam Generating Units.

Subpart E - Incinerators.

Subpart Ea - Municipal Waste Combustors.

Subpart Eb - Municipal Waste Combustors for which construction is commenced after September 20, 1994.

Subpart Ec - Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for which construction is commenced after June 20, 1996.

Subpart F - Portland Cement Plants.

Subpart G - Nitric Acid Plants.

Subpart Ga – Nitric Acid Plants for which construction, reconstruction, or modification commenced after October 14, 2011.

Subpart H - Sulfuric Acid Plants.

Subpart I - Asphalt Concrete Plants.

Subpart J - Petroleum Refineries.

Subpart Ja – Petroleum Refineries for which construction, reconstruction, or modification commenced after May 14, 2007.

Subpart K - Storage Vessels for Petroleum Liquids constructed after June 11, 1973, and prior to May 19, 1978.

Subpart Ka - Storage Vessels for Petroleum Liquids constructed after May 18, 1978, and prior to July 23, 1984.

Subpart Kb - Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

Subpart L - Secondary Lead Smelters.

Subpart M - Secondary Brass and Bronze Ingot Production Plants.

Subpart N - Primary Emissions from Basic Oxygen Process Furnaces for which construction is commenced after June 11, 1973.

Subpart Na - Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for which construction is commenced after January 20, 1983.

Subpart O - Sewage Treatment Plants.

Subpart P - Primary Copper Smelters.

Subpart Q - Primary Zinc Smelters.

Subpart R - Primary Lead Smelters.

Subpart S - Primary Aluminum Reduction Plants.

Subpart T - Wet Process Phosphoric Acid Plants.

Subpart U - Superphosphoric Acid Plants.

Subpart V - Diammonium Phosphate Plants.

Subpart W - Triple Superphosphate Plants.

Subpart X - Granular Triple Superphosphate Storage Facilities.

Subpart Y - Coal Preparation Plants.

Subpart Z - Ferroalloy Production Facilities.

Subpart AA - Steel Plants (Electric arc furnaces and dust-handling equipment).

Subpart AAa - Steel Plants: Electric Arc Furnaces and Argon Oxygen - Decarburization Vessels constructed after August 7, 1983.

Subpart BB - Kraft Pulp Mills.

Subpart BBa – Standards of Performance for Kraft Pulp Mill affected sources for which construction, reconstruction, or modification commenced after May 23, 2013.

Subpart CC - Standards of Performance for Glass Manufacturing Plants.

Subpart DD - Grain Elevators.

Subpart EE - Surface Coating of Metal Furniture.

Subpart GG - Stationary Gas Turbines.

Subpart HH - Lime Manufacturing Plants.

Subpart KK - Lead-Acid Battery Manufacture.

Subpart LL - Metallic Mineral Processing Plants.

Subpart MM - Automobile and Light-Duty Truck Surface Coating Operations.

Subpart NN - Phosphate Rock Plants.

Subpart PP - Ammonium Sulfate Manufacturing.

Subpart QQ - Graphic Arts Industry: Publication Rotogravure Printing.

Subpart RR - Pressure Sensitive Tape and Label Surface Coating Industry.

Subpart SS - Industrial Surface Coating - Large Appliances.

Subpart TT - Metal Coil Surface Coating Operations.

Subpart UU - Asphalt Processing and Asphalt Roofing Manufacture.

Subpart VV - Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry, for which construction, reconstruction, or modification commenced after January 5, 1981, and on or before November 7, 2006.

Subpart VVa – Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which construction, reconstruction, or modification commenced after November 7, 2006.

Subpart WW - Beverage Can Surface Coating Industry.

Subpart XX - Bulk Gasoline Terminals.

Subpart BBB - Rubber Tire Manufacturing Industry.

Subpart DDD - Volatile Organic Compound Emissions from the Polymer Manufacturing Industry.

Subpart FFF - Flexible Vinyl and Urethane Coating and Printing.

Subpart GGG - Equipment Leaks of VOC in Petroleum Refineries for which construction, reconstruction, or modification commenced after January 4, 1983, and on or before November 7, 2006.

Subpart GGGa – Equipment Leaks of VOC in Petroleum Refineries for which construction, reconstruction, or modification commenced after November 7, 2006.

Subpart HHH - Synthetic Fiber Production Facilities.

Subpart III - VOC Emissions from SOCMI Air Oxidation Unit Processes.

Subpart JJJ - Petroleum Dry Cleaners.

Subpart KKK - Equipment Leaks of VOC from On-shore Natural Gas Processing Plants.

Subpart LLL - Standards of Performance for On-shore Natural Gas Processing: SO_2 Emissions.

Subpart NNN - VOC Emissions from SOCMI Distillation Operations.

Subpart OOO - Nonmetallic Mineral Processing Plants.

Subpart PPP - Wool Fiberglass Insulation Manufacturing Plants.

Subpart QQQ - VOC Emissions from Petroleum Refinery Wastewater Systems.

Subpart RRR - Volatile Organic Compound (VOC) Emissions

from the Synthetic Organic Chemical Manufacturing Industry Reactor Process.

Subpart SSS - Magnetic Tape Manufacturing Industry.

Subpart TTT - Industrial Surface Coating: Plastic Parts for Business Machines.

Subpart UUU- Calciners and Dryers in Mineral Industries.

Subpart VVV - Polymeric Coating of Supporting Substrates.

Subpart WWW - Municipal Waste Landfills.

Subpart AAAA – Small Municipal Waste Combustion Units for which construction is commenced after August 30, 1999 or for which modification or reconstruction is commenced After June 6, 2001.

Subpart CCCC – Commercial and Industrial Solid Waste Incineration Units for which construction is commenced after November 30, 1999 or for which modification or reconstruction is commenced on or after June 1, 2001.

Subpart EEEE – Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or after June 16, 2006.

Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Subpart JJJJ – Stationary Spark Ignition Internal Combustion Engines.

Subpart KKKK – Standards of Performance for Stationary Combustion Turbines

Subpart LLLL – New Sewage Sludge Incineration Units.

Subpart OOOO – Crude Oil and Natural Gas Production, Transmission and Distribution.

13.3 Word or Phrase Substitutions. In all the standards designated in Part 13.2 substitute:

13.3.1 Director for Administrator.

13.3.2 Department of Natural Resources and Environmental Management for U. S. Environmental Protection Agency (except in references).

CHAPTER 14. EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (Amended March 10, 2016)

14.1 General.

14.1.1 The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing Hazardous Air Pollutants, 40 CFR, Part 61 and Appendices designated in Part 14.2 and 40 CFR Part 63, and Appendices designated in Part 14.5 are incorporated by reference as they exist in 40 CFR Part 61 (2015) and 40 CFR Part 63 (July 1, 2015), and 80 FR 65470 [10/26/2015, addition of Subparts JJJJJ and KKKKK], as amended by the word or phrase substitutions given in Part 14.3. References for specific documents containing the complete text of subject regulations are given in Appendix A to these Regulations.

[NOTE: The standards pertaining to the Consolidated Federal Air Rule are located in Chapter 15.]

14.1.2 In the event of any conflict between the regulations contained in this chapter and regulations contained in other chapters, the more stringent regulations will take precedence.

14.1.3 Definitions. For purposes of this chapter, the definitions listed in Section 61.02 Subpart A, Part 61, Title 40 of the Code of Federal Regulations will apply in Part 14.2 and the definitions listed in Section 63.2 Subpart A, Part 63, Title 40 of the Code of Federal Regulations will apply in Part 14.5.

14.2 Designated Emission Standards.

Subpart A – General Provisions.

Subpart C - Beryllium.

Subpart D - Beryllium Rocket Motor Firing.

Subpart E - Mercury.

Subpart F - Vinyl Chloride.

Subpart J - Equipment Leaks (Fugitive Emission

Sources) of Benzene.

Subpart L - Benzene Emissions from Coke By-Product Recovery Plants.

Subpart M - Asbestos.

Subpart N - Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants.

Subpart O - Standard for Inorganic Arsenic Emissions from Primary Copper Smelters.

Subpart P - Standard for Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities.

Subpart V - Equipment Leaks (Fugitive Emission Sources).

Subpart Y - Benzene Emissions from Benzene Storage Vessels.

Subpart BB - Benzene Emissions from Benzene Transfer Operations.

Subpart FF - Benzene Emissions from Benzene Waste Operations.

14.3 Word or Phrase Substitutions. In all of the standards designated in Part 14.2 and in Part 14.5 substitute:

14.3.1 Director for Administrator.

14.3.2 Department of Natural Resources and Environmental Management for U. S. Environmental Protection Agency (except in references).

14.4 Certification of Asbestos Abatement Contractors.

14.4.1 Any person, firm, organization, or corporation who is the owner or operator of any asbestos removal project for which notification is required pursuant to the requirements of Subpart M - Asbestos of Part 14.2 shall ensure that the parties executing the asbestos removal project are certified by the Alabama Department of Environmental Management (ADEM).

14.4.2 Procedures for application for certification and re-certification.

(a) An application for certification or recertification must be completed on forms that are supplied by ADEM.

(b) Applications shall include, at minimum, the following information:

(1) lists of supervisors and workers, including their accreditation numbers issued by the state-approved accreditation program.

(2) a list of asbestos removal operations performed by the party during the previous twelve (12) months.

(3) assurance that all supervisors or workers used in asbestos removal operations employed by the party shall have a current accreditation by the state-approved accreditation program before performing any work inside or outside a removal site.

(4) a written certification from the principal officer or person stating that he/she understands state regulations pertaining to asbestos removal and will abide by said regulations.

(c) ADEM may issue a certificate of certification to a party if it has been determined that:

(1) each supervisor and worker involved in asbestos removal is accredited by the state-approved accreditation program.

(2) all application forms and attachments are properly completed and have been submitted.

(3) the application fees have been paid.

(d) ADEM may deny certification if it determines that the applicant is unable or unwilling to fully comply with applicable requirements, procedures, rules and standards promulgated or established by the Commission or the Department. All notices regarding the denial of

certification will be sent via certified mail.

14.4.3 Parties must reapply annually in order to maintain proper certification.

14.4.4 A copy of the party's current certification must be available at each of its removal sites.

14.4.5 Annual accreditation of supervisors and workers is required.

14.4.6 Copies of accreditation for every supervisor and worker must be kept at each removal site.

14.4.7 ADEM may revoke certification of any party duly certified if the party repeatedly fails to comply with applicable rules and standards or fails to comply with any certification requirements.

14.5 National Emission Standards for Hazardous Air Pollutants for Source Categories.

Subpart A – General Provisions

Subpart B - Requirements for Control Technology Determinations for Major Sources in accordance with Clean Air Act Sections 112(g) and 112(j).

[Note: The requirements for implementation of §112(g) are found in Part 3.10]

Subpart D - Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants.

Subpart F - National Emission standards for Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry.

Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.

Subpart I - National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks.

Subpart L - National Emission Standards for Coke Oven Batteries.

Subpart M - National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities.

Subpart N - National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

Subpart O - Ethylene Oxide Emissions Standards for Sterilization Facilities.

Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.

Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).

Subpart S – National Emission Standards for Hazardous Air Pollutants for Pulp and Paper Productions

Subpart T - National Emission Standards for Halogenated Solvent Cleaning.

Subpart U - National Emission Standards for Hazardous Air Pollutant emission: Group I Polymers and Resins.

Subpart W - National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production.

Subpart X - National Emission Standards for Secondary Lead Smelting.

Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants.

Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants.

Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries.

Subpart DD - National Emissions Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

Subpart EE - National Emission Standards for Magnetic Tape Manufacturing Operations.

Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities.

Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities.

Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating) Operations.

Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations.

Subpart KK - National Emissions Standards for the Printing and Publishing Industry.

Subpart MM – National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite and Stand-along Pulp and Paper Mills.

Subpart OO - National Emission Standards for Tanks Level 1.

Subpart PP - National Emission Standards for Containers.

Subpart QQ - National Emission Standards for Surface Impoundments.

Subpart RR - National Emission standards for Individual Drain Systems.

Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process.

Subpart TT – National Emission Standards for Equipment Leaks – Control Level 1.

Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards.

Subpart VV - National Emission Standards for Oil - Water Separators and Organic - Water Separators.

Subpart WW – National Emission Standards for Hazardous Air Pollutants for Storage Vessels (Tanks) – Control Level 2.

Subpart XX – National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations.

Subpart YY – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards.

Subpart CCC – National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants.

Subpart DDD – National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production.

Subpart EEE – National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors.

Subpart GGG – National Emission Standards for Hazardous Air Pollutants for Source Categories: Pharmaceuticals Production.

Subpart HHH – National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities.

Subpart III – National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production.

Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions; Group IV Polymers and Resins.

Subpart LLL – National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production.

Subpart NNN – National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing.

Subpart OOO – National Emission Standards for Hazardous Air Pollutants for Amino/Phenolic Resins Production.

Subpart PPP – National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production.

Subpart QQQ – National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting.

Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

Subpart UUU – National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units.

Subpart VVV – National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works.

Subpart XXX – National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese.

Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.

Subpart CCCC – National Emission Standards for Hazardous Air Pollutants for manufacturing of Nutritional Yeast.

Subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products.

Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline).

Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical

Manufacturing.

Subpart GGGG – National Emission Standards for Hazardous Air Pollutants for Solvent Extraction for Vegetable Oil Production.

Subpart HHHH – National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production.

Subpart IIII – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light Duty Trucks.

Subpart JJJJ – National Emission Standards for Hazardous Air Pollutants: Paper and other Web Coating.

Subpart KKKK – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans.

Subpart MMMM – National Emission Standards for Hazardous Air Pollutants: for Surface Coating of Miscellaneous Metal Parts and Products.

Subpart NNNN – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances.

Subpart OOOO – National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles.

Subpart PPPP – National Emission Standards for Hazardous Air Pollutants for the Surface Coating of Plastic Parts and Products.

Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products.

Subpart RRRR – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture.

Subpart SSSS – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil.

Subpart TTTT – National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations.

Subpart UUUU - National Emission Standards for Hazardous Air Pollutants for Cellulose Products manufacturing.

Subpart VVVV – National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing.

Subpart WWWW – National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.

Subpart XXXX – National Emission Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing.

Subpart YYYY – National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines.

Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Subpart AAAAA – National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants.

Subpart BBBBB – National Emission Standards for Hazardous Air Pollutants Semiconductor Manufacturing.

Subpart CCCCC – National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks.

Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.

Subpart EEEEE – National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries.

Subpart FFFFF – National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities.

Subpart GGGGG – National Emission Standards for Hazardous Air Pollutants: Site Remediation.

Subpart HHHHH – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.

Subpart IIIII – National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants.

Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing.

Subpart KKKKK – National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing.

Subpart LLLLL – National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing.

Subpart MMMMM – National Emission Standards for Hazardous Air Pollutants: Flexible Polyurethane Foam Fabrication Operations.

Subpart NNNNN – National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production.

Subpart PPPPP – National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards.

Subpart QQQQQ – National Emission Standards for Hazardous Air Pollutants for Friction Materials Manufacturing Facilities.

Subpart RRRRR – National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing.

Subpart SSSSS – National Emission Standards for Hazardous Air Pollutants for Refractory Products Manufacturing.

Subpart TTTTT – National Emission Standards for Hazardous Air Pollutants for Primary Magnesium Refining.

Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants for Coal- and Oil-Fired Electric Utility Steam Generating Units.

Subpart WWWWW – National Emission Standards for Hazardous Air Pollutants for Hospital Ethylene Oxide Sterilizers.

Subpart YYYYY - National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities.

Subpart ZZZZZ - National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.

Subpart BBBBBB - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants & Pipeline Facilities.

Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.

Subpart DDDDDD – National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production Area Sources.

Subpart EEEEEE – National Emissions Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources.

Subpart FFFFFF – National Emissions Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources.

Subpart GGGGGG – National Emissions Standards for Hazardous Air Pollutants for Primary Nonferrous Metals Area Sources – Zinc, Cadmium, and Beryllium.

Subpart HHHHHH – National Emissions Standards for Hazardous Air Pollutants: Paint Stripping & Miscellaneous Surface Coating Operations at Area Sources.

Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources.

Subpart LLLLLL – National Emissions Standards for

Hazardous Air Pollutants for Acrylic and Modacrylic Fibers Production Area Sources.

Subpart MMMMMM – National Emissions Standards for Hazardous Air Pollutants for Carbon Black Production Area Sources.

Subpart NNNNNN – National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources: Chromium Compounds.

Subpart OOOOOO – National Emissions Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources.

Subpart PPPPPP – National Emissions Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources.

Subpart QQQQQQ – National Emissions Standards for Hazardous Air Pollutants for Wood Preserving Area Sources.

Subpart RRRRRR – National Emissions Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources.

Subpart SSSSSS – National Emissions Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources.

Subpart TTTTTT – National Emissions Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources.

Subpart VVVVVV – National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources.

Subpart WWWWWW – National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations.

Subpart XXXXXX – National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Nine Metal Fabrication and Finishing Source Categories.

Subpart YYYYYY – National Emissions Standards for

Hazardous Air Pollutants for Ferroalloys Production Facilities Area Sources.

Subpart ZZZZZZ – National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries.

Subpart AAAAAAA – National Emissions Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing.

Subpart BBBBBBB – National Emissions Standards for Hazardous Air Pollutants for Area Sources: Chemical Preparations Industry.

Subpart CCCCCCC – National Emissions Standards for Hazardous Air Pollutants for Area Sources: Paint and Allied Products Manufacturing.

Subpart DDDDDDD – National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Prepared Feeds Manufacturing.

Subpart HHHHHHH – National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production.

CHAPTER 15. CONSOLIDATED FEDERAL AIR RULE REGARDING NEW SOURCE PERFORMANCE STANDARDS AND NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (Adopted April 10, 2003)

15.1 General

15.1.1 The Environmental Protection Agency Regulations designated in Part 15.2 are incorporated by reference as they exist in 40 CFR 65 (2007), 72 FR 48938 [08/27/07; amendments to Subpart A] and 72 FR 73625 [12/28/07]; amendments to Subpart A], as amended by the word or phrase substitutions given in Part 15.3, except for the provisions found in 65.14, which are excluded. References for specific documents containing the complete text of subject regulations are given in Appendix A to these Regulations. Authorities that are not delegable to the state are identified in the referenced documents. (Amended September 8, 2011)

15.1.2 In the event of any conflict between the regulations contained in this Chapter and regulations contained in other Chapters, the more stringent regulations will take precedence.

15.1.3 Definitions. For purposes of this Chapter, the definitions listed in 40 CFR 65.2, Subpart A will apply in Part 15.2.

15.2 Designated Emission Standards.

Subpart A – General Provisions.
Subpart C – Storage Vessels.
Subpart D – Process Vents.
Subpart E – Transfer Racks.
Subpart F – Equipment Leaks.
Subpart G – Closed Vent Systems, Control Devices, and Routing to a Fuel Gas System or a Process.

15.3 Word or Phrase Substitutions.

In all of the standards designated in Part 15.2 substitute:

(a) Director for Administrator.
(b) Department for U. S. Environmental Protection Agency (except in references).

CHAPTER 16. RULES OF ADMINISTRATIVE PROCEDURE
(adopted January 23, 1985)

16.1 Applicability. This Chapter prescribes the procedures for the hearing and determination of appeals of administrative actions of the Director by the Air Pollution Control Board.

16.2 Definitions. For purposes of this Chapter, the following words and phrases, unless a different meaning is plainly required by the context, shall have the following meanings:

"Administrative Action" means the issuance, modification, repeal, renewal or denial of any permit, license, certification, or variance, or the issuance, modification or repeal of any order, notice of violation, citation, rule, or regulation by the Director. Failure of the Director to take any such action in the time frame specified under Chapter 3 of these Rules and Regulations shall be considered an administrative action for the purposes of this Chapter.
(amended November 9, 1993)

"Aggrieved" means having suffered a threatened or actual injury in fact.

16.3 Right to Hearing. Upon a proper request made and filed in accordance with Part 16.4, any person aggrieved by an administrative action shall be entitled to a hearing before the Board or its designated Hearing Officer.

16.4 Request for Hearing.

16.4.1 Any person aggrieved by an administrative action, other than the issuance of any rule or regulation or emergency order, may file with the Air Pollution Control Board a request for a hearing to contest such action within fifteen days after notice to the aggrieved person by the Director of such action, or if no notice to the aggrieved person is given, within thirty days of such action.

16.4.2 Any person aggrieved by the issuance, modification or repeal of any rule or regulation by the

Director may file with the Air Pollution Control Board a request for a hearing to contest such administrative action within forty-five days of such action.

16.4.3 Any person aggrieved by the issuance of an emergency order by the Director may file with the Air Pollution Control Board a request for an expedited hearing to contest such administrative action.

16.4.4 A request for a hearing to contest an administrative action shall be made in writing and shall contain:

(a) the name, mailing address, and telephone number of the person making the request;

(b) a short and plain statement identifying the administrative action of the Department being contested;

(c) a short and plain statement of the threatened or actual injury suffered by the requester as a result of the administrative action;

(d) a short statement of the terms and conditions which the requester proposes that the Air Pollution Control Board should include in an order modifying or disapproving the Director's administrative action; and

(e) the name, mailing address, and telephone number of the requester's attorney, if represented by an attorney.

16.4.5 A request for a hearing to contest an administrative action shall be filed with the Air Pollution Control Board by delivering the same, either personally or by United States Mail as certified mail, return receipt requested with instructions to the delivering postal employee to show to whom delivered, date of delivery, and address where delivered, to:

Chairman
Air Pollution Control Board
c/o Natural Resources and
Environmental Management Department
City of Huntsville
P. O. Box 308
Huntsville, Alabama 35804

16.5 Notice of Filing of Request for Hearing. Within five days after the filing of a request for a hearing to contest an administrative action, the Board shall serve a copy of such request upon the Director and such other persons as the Air Pollution Control Board deems appropriate.

16.6 Parties.

16.6.1 In any hearing to contest an administrative action, the person making and filing a request for a hearing in accordance with Part 16.4 shall be a party.

16.6.2 In any hearing to contest an administrative action of the Director, the Director shall be a party.

16.6.3 In any hearing to contest an administrative action, any person whose application to intervene is granted by the Director shall be a party.

16.7 Intervention.

16.7.1 Upon timely application therefor filed with the Air Pollution Control Board, any person shall be permitted to intervene in any hearing to contest an administrative action when a statute confers an unconditional right to intervene, or when the applicant has an individual interest in the outcome of the hearing as distinguished from a public interest and the representation of the interest of the applicant by persons already made parties is inadequate.

16.7.2 An application to intervene shall contain:

(a) the name, mailing address, and telephone number of the applicant;

(b) a short and plain statement identifying the administrative action of the Director being contested and, if possible, the name of the person who filed the request for a hearing to contest such action;

(c) a short and plain statement of the grounds for the application, including reference to any statute which confers an unconditional right to intervene or a statement of the individual interest of the applicant in the outcome of the hearing and a statement of why the representation of

the interest of the applicant by persons already parties in the hearing is inadequate; and

(d) the name, mailing address, and telephone number of the applicant's attorney, if represented by an attorney.

16.7.3 Within five days after the filing of an application to intervene in any hearing to contest an administrative action, the Air Pollution Control Board shall serve a copy of such application upon each of the parties.

16.8 Consolidation and Severance

16.8.1 The Air Pollution Control Board may order consolidation, in whole or in part, of two or more hearings to contest an administrative action whenever it appears that such consolidation would expedite or simplify consideration of the issues and no party would be prejudiced thereby.

16.8.2 The Air Pollution Control Board may order severance, in whole or in part, of any hearings consolidated in accordance with Section 16.18.1 whenever it appears that continued consolidation will not expedite or simplify consideration of the issues or will prejudice any party.

16.9 Pre-hearing Procedure

16.9.1 The Air Pollution Control Board may on its own initiative or on the motion of any party, direct the parties to appear at a specified time and place for one or more conferences, prior to or during a hearing, to consider:

(a) settlement of the contest;

(b) the identification, clarification, simplification, or limitation of the issues;

(c) the possibility of obtaining admissions of fact and of the genuineness of documents which will avoid unnecessary proof;

(d) the identification of facts, and the source

thereof, of which official notice is proposed to be taken;

(e) the identification of persons with knowledge of any relevant matter;

(f) the identification of any expert witnesses expected to be called by any party to testify at the hearing and the substance of the facts and opinions to which the expert witness is expected to testify and a summary of the grounds for each opinion.

(g) the need for the issuance of subpoenas to compel the attendance of any witness at the hearing or the production of any papers, books, accounts, payrolls, documents, or records;

(h) the need for the issuance of subpoenas to compel the attendance of any witness at the taking of his deposition, if such witness is unable to be present or to testify at the hearing because of age, illness, infirmity, or imprisonment or if the parties have agreed to the submission of the testimony of such witness in verified form;

(i) the possibility of submitting any evidence in verified form when the hearing will be expedited and the interests of the parties will not be prejudiced thereby, provided that the right of cross-examination of any witness shall not be denied; and

(j) such other matters as may aid in the disposition of the contest.

16.9.2 The Air Pollution Control Board shall make a written pre-hearing order reciting the action taken at the conference and the agreements made by the parties as to any of the matters considered. The order shall limit the issues for consideration at the hearing to those not disposed of by admissions or agreements of the parties. Such order, when entered, shall control the subsequent course of the hearing, unless modified to prevent manifest injustice.

16.10 Notice of Hearing.

16.10.1 At least fifteen days prior to the commencement of any hearing to contest an administrative action, other than the issuance of an emergency order, the Air Pollution

Control Board shall give written notice of the time, place, and nature of such hearing to the person requesting such hearing, the Director and any other named or necessary party. Such notice shall include a citation to the legal authority and jurisdiction under which the hearing is to be held and reference to the particular sections of the ordinances and rules involved and a short and plain statement of the matters asserted by the requester.

16.10.2 Within such time as may be reasonable under the circumstances, the Air Pollution Control Board shall give notice of the time, place, and nature of any hearing to contest the issuance of an emergency order to the person requesting such hearing and such other persons as the Air Pollution Control Board deems appropriate.

16.10.3 Any notice required by this Part to be given to any party shall be delivered to such party either personally, by registered mail, or by certified mail return receipt requested.

16.11 Hearing Procedure.

16.11.1 A hearing to contest an administrative action shall be commenced within a reasonable time, not to exceed forty-five days after the making and filing of a proper request in accordance with Part 16.4.

16.11.2 The testimony of all parties and witnesses shall be made under oath administered by the Air Pollution Control Board.

16.11.3 All testimony or comments given in any hearing before the Air Pollution Control Board shall be electronically or stenographically recorded, but need not be transcribed unless an appeal is taken to court or unless requested by any party who shall pay the cost of transcription.

16.11.4 The parties shall not be bound by the strict rules of evidence prevailing in the courts.

16.11.5 Each party shall be entitled to respond and present evidence and argument on all material issues involved in the hearing. The burden of going forward with the evidence shall be on the party requesting the hearing. Each

party shall be entitled to present opening statements and closing arguments, oral or written.

16.11.6 A party may conduct cross-examination required for a full and true disclosure of facts, except as may otherwise be limited by law.

16.12 Default. If a party fails to appear at a hearing after being given proper notice thereof, the Air Pollution Control Board may, if no adjournment is granted, proceed with the hearing in the absence of the party.

16.13 Record. The record of a hearing to contest an administrative action shall include:

16.13.1 The request for a hearing made and filed in accordance with Part 16.4;

16.13.2 All motions, applications and intermediate rulings and orders;

16.13.3 All evidence received or considered and all other submissions; provided, in the event that evidence in any proceeding contains information which the Director has determined to be confidential or otherwise not available to the public under any law, rule, or regulation administered by the Director, the Air Pollution Control Board shall take such steps as are necessary to prevent public disclosure of that information;

16.13.4 A statement of all matters officially noticed;

16.13.5 All questions and offers of proof, objections, and rulings thereon;

16.13.6 All proposed findings and exceptions; and

16.13.7 The report of the Hearing Officer; if one was designated by the Air Pollution Control Board.

16.14 Order.

16.14.1 Within thirty days after the conclusion of a hearing contesting an administrative action of the Director, other than the issuance of an emergency order, the Air Pollution Control Board shall issue an appropriate order

modifying, approving, or disapproving the Director's action.

16.14.2 Within such time as may be reasonable under the circumstances but not later than thirty days after the conclusion of a hearing contesting the issuance of an emergency order, the Air Pollution Control Board shall issue an appropriate order modifying, approving, or disapproving the Director's action.

16.14.3 Any order of the Air Pollution Control Board modifying, approving, or disapproving the Director's administrative action shall be in writing and shall include findings of fact and conclusions of law separately stated. Findings of fact shall be based solely on the evidence in the record and on matters officially noticed in the record. Findings of fact, if set forth in a manner which is no more than mere tracking of statutory language, shall be accompanied by a concise and explicit statement of the underlying facts of record which support the findings.

16.14.4 A copy of the order of the Air Pollution Control Board shall be served upon each of the parties either personally, by registered mail, or by certified mail return receipt requested.

16.14.5 Any order of the Air Pollution Control Board made pursuant to the procedures of this Part, modifying, approving or disapproving the Director's administrative action, constitutes a final action of the Department and is appealable to the Madison County Circuit Court provided that such appeal is filed within 30 days after issuance of such order. Administrative action with respect to which review was or could have been obtained under this Chapter shall not be subject to judicial review in any civil or criminal proceeding for enforcement. (adopted November 9, 1993)

16.15 Majority of Quorum Needed to Issue Order. The Air Pollution Control Board may not issue an order modifying, approving, or disapproving an administrative action without the concurrence of a majority of a quorum. A quorum shall be any four of the seven members of the Air Pollution Control Board. Recusal of a member of the Air Pollution Control Board shall not affect the quorum.

16.16 Mandatory Recusal.

16.16.1 Any Air Pollution Control Board member who was not present at a hearing to contest an administrative action or who has not read the record, including a transcript of all testimony or comments given in such hearing, shall recuse himself from voting to issue any order modifying, approving, or disapproving such administrative action and from participating in any discussions with other members of the Air Pollution Control Board concerning the issuance of any such order.

16.16.2 Any party to a hearing contesting an administrative action may file a timely motion to compel the recusal of any member of the Board from voting to issue an order modifying, approving, or disapproving such administrative action or to disqualify a Hearing Officer from conducting a hearing contesting such administrative action. Such motion shall be supported by a sufficient affidavit, made on personal knowledge, asserting conflict of interest or personal bias. The Air Pollution Control Board shall determine the matter as part of the record of the hearing; however, the Air Pollution Control Board member against whom conflict of interest or personal bias is asserted, shall recuse himself from such determination.

16.17 Permissive Recusal. Any Air Pollution Control Board member may recuse himself from voting to issue any order modifying, approving, or disapproving an administrative action and from participating in any discussions with other members of the Air Pollution Control Board concerning the issuance of any such order if he believes himself to have a conflict of interest or personal bias which would prevent his fair and impartial consideration of the merits of the contest.

16.18 Disposition Without Hearing.

16.18.1 Any party who made and filed a request for a hearing to contest an administrative action with the Air Pollution Control Board in accordance with Part 16.4 may at any time before the commencement of a hearing withdraw his request by filing a notice thereof with the Air Pollution Control Board.

16.18.2 Any party who made and filed with the Air Pollution Control Board a request for a hearing to contest an administrative action of the Director in accordance with

Rule 16.4, may at any time after the commencement of a hearing file a motion for voluntary dismissal of the contest with the Air Pollution Control Board.

16.18.3 The parties to any hearing to contest an administrative action of the Director may at any time after the filing of the request for a hearing to contest an administrative action of the Director file with the Air Pollution Control Board a proposed consent order modifying, approving, or disapproving the administrative action of the Director with a joint motion that the Air Pollution Control Board issue an order in accordance therewith.

16.19 Stay of Action Pending Issuance of Order.

16.19.1 Pending issuance of the Air Pollution Control Board's order and upon application therefor made by any party, the Air Pollution Control Board may stay the operation of the contested administrative action upon such terms and conditions as it may deem proper.

16.19.2 An application for a stay of the operation of the contested administrative action shall state the grounds therefor.

16.19.3 No stay of the operation of a contested administrative action shall be granted without prior notice to each party and an opportunity to be heard before the Air Pollution Control Board.

16.20 Filing and Service.

16.20.1 Except as otherwise provided in this Chapter, the filing of any request, application, motion, or other writing or paper with the Air Pollution Control Board shall be made by delivering such request, application, motion, or other writing or paper to:

Chairman
Air Pollution Control Board
c/o Natural Resources and Environmental
Management Department
City of Huntsville
P. O. Box 308
Huntsville, Alabama 35804

16.20.2 A copy of every motion or other writing or paper, other than a request for a hearing and application to intervene, filed with the Air Pollution Control Board concerning a contested administrative action shall be served upon each of the parties. Except as otherwise provided in this Chapter, service upon a party shall be made by delivering or mailing a copy to the party or his attorney, if represented by one. Delivery of a copy within the meaning of this Rule means: handing it to the party or attorney; or leaving it at his office with his clerk or other person in charge thereof; or, if there is no one in charge, leaving it in a conspicuous place therein, or, if the office is closed or the person to be served has no office, leaving it at his dwelling house or usual place of abode with some person of suitable age and discretion then residing therein. Service by mail is complete upon mailing.

16.21 Computation of Time. In computing any period of time prescribed by this Chapter, the day the administrative action of the Air Pollution Control Board is taken shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, a Sunday, or a legal holiday. A legal holiday includes New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, and any other day appropriated as a holiday by the President or the Congress of the United States. Whenever a party has the right or is required to do some act or to take some proceedings within a prescribed period after the service of a notice or other paper upon him and the notice or paper is served upon him by mail, three days shall be added to the prescribed period.

16.22 Party Communications.

16.22.1 A party, or his attorney, shall not communicate, or cause another to communicate, with the Air Pollution Control Board or any member thereof or a Hearing Officer, as to any matter which concerns a contested administrative action then pending, except:

(a) in the course of official proceedings concerning the contested administrative action;

(b) in writing if he promptly serves a copy of the writing on each party; or

(c) orally upon adequate notice to each party or his attorney.

16.22.2 No Air Pollution Control Board member or Hearing Officer shall initiate, entertain, or consider any communication with a party, or his attorney, concerning a contested administrative action then pending unless such communication is permitted as provided in this Part.

16.23 Hearing Officers.

16.23.1 The Board may hire or employ one or more Hearing Officers to conduct hearings of contested administrative actions, other than hearings to contest the issuance of emergency orders. Such Hearing Officers shall be attorneys licensed to practice law in the State of Alabama and shall be paid an amount prescribed by the Air Pollution Control Board from the Air Pollution Control Department's funds but shall not be subject to the authority, direction, or discretion of the Director of the Department or any other person subject to the authority, direction, or discretion of the Director of the Department.

16.23.2 The Board may delegate to a Hearing Officer, the power to conduct hearings of contested administrative actions, other than hearings to contest the issuance of an emergency order, and all proceedings related thereto, in the same manner as provided in this Chapter for the conduct of such hearings and proceedings before the Air Pollution Control Board. The power to conduct hearings of contested administrative actions shall include the power to do all things which the Air Pollution Control Board might do under this Chapter, except issue an order modifying, approving, or disapproving an administrative action or issue an order granting or denying an application for a stay of the operation of the contested administrative action pending issuance of an Air Pollution Control Board order modifying, approving, or disapproving such administrative action.

16.23.3 The Hearing Officer shall prepare and submit to the Air Pollution Control Board within ten days after the conclusion of any hearing to contest an administrative action, a report containing findings of fact, conclusions of law, recommendations, and the record, including a transcript of all testimony or comments given in such hearing, for the consideration of the Air Pollution Control Board. The report

of the Hearing Officer shall also state the date on which the hearing was concluded.

CHAPTER 17. ACID RAIN PROGRAM - PERMITS REGULATIONS
(Amended July 22, 1999)

17.1 General - Permits Regulation.

17.1.1 The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing the Acid Rain Program - Permits Regulation (40 CFR, Part 72 and Appendices) are incorporated by reference as they exist in 40 CFR Part 72, (July 1, 2008), except for the provisions found in 40 CFR § 72.12 and 40 CFR §§ 72.70 through 72.74, which are excluded. (amended September 8, 2011)

17.1.2 In the event of any inconsistency between the regulations contained in this chapter and regulations contained in other chapters, the provisions of this rule shall take precedence and shall govern the issuance, denial, revision, reopening, and renewal of the Acid Rain provisions of an operating permit.

17.1.3 For purposes of this Chapter, the definitions listed in 40 CFR Section 72.2, Subpart A, will apply.

17.2 Nitrogen Oxides Emission Reduction Program.

17.2.1 The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing the Acid Rain Nitrogen Oxides Emission Reduction Program (40 CFR, Part 76 and Appendices) are incorporated by reference as they exist in 40 CFR Part 76, (July 1, 2006) except for the references to 40 CFR 78 which are excluded.

17.2.2 In the event of any inconsistency between the regulations contained in this chapter and regulations contained in other chapters, the provisions of this rule shall take precedence and shall govern the issuance, denial, revision, reopening, and renewal of the Acid Rain provisions of an operating permit.

17.2.3 For purposes of this chapter, the definitions listed in 40 CFR § 72.2, Subpart A and § 76.2 will apply.

CHAPTER 18. CONTROL OF MUNICIPAL SOLID WASTE LANDFILL GAS EMISSIONS (Adopted March 26, 1998)

18.1 Definitions. For the purposes of this Chapter and Part 13.2 Subpart WWW only, the following words and phrases, unless a different meaning is plainly required by the content, shall have the following meanings. (amended November 9, 2000)

"Active collection system" means a gas collection system that uses gas mover equipment.

"Active landfill" means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

"Closed landfill" means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under §60.7(a)(4), 40 CFR. Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of ADEM Admin. Code R. 335-13-4-.20.

"Closure" means that point in time when a landfill becomes a closed landfill.

"Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

"Controlled landfill" means any landfill at which collection and control systems are required under this Chapter as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with Subdivision 18.3.1(b)(2)(i).

"Design capacity" means the maximum amount of solid waste a landfill can accept, indicated in terms of volume or mass in the most recent permit issued by the Alabama Department of Environmental Management, plus any in-place waste not accounted for in the most recent permit. If

the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually.

"Emission rate cutoff" means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

"Enclosed combustor" means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

"Flare" means an open combustor without enclosure or shroud.

"Gas mover equipment" means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

"Household waste" means any solid waste including garbage and trash derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

"Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C or the Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include fly ash waste, bottom ash waste, boiler slag waste, or flue gas

emission control waste which result from the combustion of coal or other fossil fuels at electric or steam generating plants. Additionally, this term does not include mining waste or oil and gas wastes, or small quantity generator waste as defined in ADEM Admin. Code R. 335-14-2-.01(5). Uncontaminated concrete, soil, brick, rock, and similar materials are excluded from this definition.

"Interior Well" means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

"Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under ADEM Admin. Code R. 335-13-1-.03.

"Lateral expansion" means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

"Modification" means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.

"Municipal solid waste landfill" or "MSW landfill" means an entire disposal facility in a contiguous geographic space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (ADEM Admin. Code R. 335-13-1.03) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

"Municipal solid waste landfill emissions" or "MSW landfill emissions" means gas generated by the

decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

"NMOC" means nonmethane organic compounds, as measured according to the provisions of Section 18.3.3.

"Nondegradable waste" means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

"Passive collection system" means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

"Sludge" means any nonhazardous solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

"Solid waste" means any garbage or rubbish, construction /demolition debris, ash, sludge from a wastewater 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, and agricultural operations, and from community activities or materials intended for or capable of recycling, but which have not been diverted or removed from the solid waste stream. The term "solid waste" does not include recovered material, solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to National Pollutant Discharge permits under the Federal Water Pollution Control Act 33 U.S.C. 1342, as amended, or source special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.). Also excluded from this definition are waste from silvicultural operations, land application of crop residues, animal residues, animal manure and ash resulting exclusively from the combustion of fossil fuels or wood during normal agricultural operations or mining

refuse as defined and regulated pursuant to the Alabama Mining Act.

"Sufficient density" means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this Chapter.

"Sufficient extraction rate" means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

18.2 General Provisions.

18.2.1 The provisions of this Chapter apply to each existing MSW landfill for which construction, reconstruction or modification was commenced before May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with this Chapter are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of Subpart WWW as incorporated by reference in Part 13.2,[see §60.750 of Subpart WWW, 40 CFR].

18.2.2 Control of MSW landfill emissions shall be required at each MSW landfill meeting the following three conditions: (amended November 9, 2000)

(a) The landfill has accepted municipal solid waste at any time since November 8, 1987;

(b) The landfill has a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the design capacity report; and

(c) The landfill has a nonmethane organic compound emission rate of 50 megagrams per year or more.

18.2.3 For purposes of obtaining an operating permit under part 3.9 of these Rules and Regulations, the owner or operator of a MSW landfill subject to this Chapter with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under Part 3.9 unless the landfill is otherwise subject to Part 3.9. For purposes of submitting a timely application for an operating permit, the owner or operator of a MSW landfill subject to this Chapter with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters on the effective date of EPA's approval of the State of Alabama program [December 7, 1998], and not otherwise subject to Part 3.9, becomes subject to the requirements of Part 3.9 ninety (90) days after the effective date [i.e. March 7, 1999] of said program approval, even if the design capacity report is submitted earlier. (adopted November 9, 2000)

18.2.4 When a MSW landfill subject to this Chapter is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under Part 3.9 of these Rules and Regulations for the landfill if the landfill is not otherwise subject to the requirements of Part 3.9 and if either of the following conditions are met. (adopted November 9, 2000)

(a) The landfill was never subject to the requirement for a control system under Part 18.3 of this Chapter; or

(b) The owner or operator meets the condition for control system removal specified in subparagraph 18.3.1(b)(2)(v) of this Chapter.

18.3 Standards for Existing Municipal Solid Waste Landfills.

18.3.1 Standards for Air Emissions from Existing Municipal Solid Waste Landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Director as provided in Paragraph 18.3.6(a) of this Part. The landfill owner or operator may calculate design capacity

in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this Part except as provided for in Subparagraphs (a)(1) and (a)(2) below. (amended November 9, 2000)

(1) The owner or operator shall submit to the Director an amended design capacity report, as provided for in Subparagraph 18.3.6 (a)(3). [Guidance: Note that if the design capacity increase is the result of a modification, as defined in Part 18.1 of this Chapter, that commenced construction on or after May 30, 1991, the landfill will become subject to Part 13.2, Subpart WWW of these Rules and Regulations (40 CFR 60, Subpart WWW). If the design capacity increase is the result of a change in operating practices, density, or some other change that is not a modification, the landfill remains subject to this Chapter.)

(2) When an increase in the maximum design capacity of a landfill with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of Paragraph (b) below.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with Subparagraph (b)(2) or calculate an NMOC emission rate for the landfill using the procedures specified in Section 18.3.3 of this Part. The NMOC emission rate shall be recalculated annually, except as provided in Subdivision 18.3.6(b)(1)(ii) of this Part. The owner or operator of an MSW landfill subject to this Chapter with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to major source operating permitting requirements in Chapter 3. (amended November 9, 2000)

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) submit an annual emission report to the

Director, except as provided for in Subdivision 18.3.6(b)(1)(ii) of this Part; and

(ii) recalculate the NMOC emission rate annually using the procedures specified in Subparagraph 18.3.3(a)(1) of this Part until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon initial calculation or annual recalculation required in Subdivision (b)(1)(ii) above, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with Subparagraph (b)(2) below. (amended November 9, 2000)

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Director as provided for in Paragraph 18.3.6(d) of this Part.

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Director within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of Subdivision (b)(2)(ii) below.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of Sections 18.3.2 through 18.3.7 of this Part proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in Section 18.3.8 of this Part or include a demonstration to the Director's satisfaction of the sufficiency of the alternative provisions to Section 18.3.8 of this Part.

(D) The Director shall review the information submitted under (A),(B) and (C) of Subdivision (b)(2)(i) and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by subdivision 18.3.1(b)(2)(ii)(A) or (B) and subdivision 18.3.1(b)(2)(iii) of this Section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in paragraphs 18.3.6(c)(1) or (2) of this Part. (amended November 9, 2000)

(A) An active system shall:

1. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

2. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

a. 5 years or more if active; or

b. 2 years or more if closed or at final grade;

3. Collect gas at a sufficient extraction rate;

4. Be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

1. Comply with the provisions specified in (A)1.,(A)2., and (A)4. of Subdivision (b)(2)(ii).

2. Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under ADEM Admin. Code Chapter 335-13-4.

(iii) Route all the collected gas to a control system that complies with the requirements in either Subdivision (b)(2)(iii)(A),(B) or (C) below.

(A) An open flare designed and operated in accordance with §60.18, 40 CFR;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after initial start-up of the approved control system, using the test methods specified in Paragraph 18.3.3(d) of this Part. (amended January 9, 2000)

1. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

2. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in Section 18.3.5 of this Part.

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of Subdivision (b)(2)(iii)(A) or (B).

(iv) Operate the collection and control device installed to comply with this Chapter in accordance with the provisions of Sections 18.3.2, 18.3.4, and 18.3.5 of this Part.

(v) The collection and control system may be capped or removed provided that all the conditions of Subdivisions (b)(2)(v)(A),(B), and (C) are met:

(A) The landfill shall be a closed landfill as defined in Part 18.1 of this Chapter. A closure report shall be submitted to the Director as provided in Paragraph 18.3.6(d) of this Part; (amended November 9, 2000)

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in Paragraph 18.3.3(b) of this Part, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

18.3.2 Operational Standards for Collection and Control Systems.

Each owner or operator with an MSW landfill gas collection and control system used to comply with the provisions of Subdivision 18.3.1(b)(2)(ii) of this Part shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) a fire or increased well temperature. The

owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in Subparagraph 18.3.6(f)(1) of this Part;

(2) use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) a decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Director;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) the nitrogen level shall be determined using Method 3C (40 CFR 60), unless an alternative test method is established as allowed by Subdivision 18.3.1(b)(2)(i) of this Part.

(2) unless an alternative test method is established as allowed by Subdivision 18.3.1(b)(2)(i) of this Part, the oxygen shall be determined by an oxygen meter using Method 3A (40 CFR 60) except that:

(i) the span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) a data recorder is not required.

(iii) only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) a calibration error check is not required;

(v) the allowable sample bias, zero drift, and calibration drift are ±10 percent.

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Subdivision 18.3.1(b)(2)(iii) of this Part. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirement in Paragraphs (b),(c), or (d) of this section are not met, corrective action shall be taken as specified in Subparagraph 18.3.4(a)(3) through (5) or Paragraph 18.3.4(c) of this Part. If corrective actions are taken as specified in Section 18.3.4 of this Part, the monitored exceedance is not a violation of the operational requirements in this Paragraph.

18.3.3 Test Methods and Procedures.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided

in Subdivision (a)(1)(i) or the equation provided in Subdivision (a)(1)(ii). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Subdivision (a)(1)(i) of this Paragraph, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in Subdivision (a)(1)(ii) of this Paragraph, for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_o, and 4,000 parts per million by volume as hexane for the C_{NMOC}. (amended November 9, 2000)

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the

k = methane generation rate constant,

L_o = methane generation potential,

M_i = mass of solid waste in the ith section, megagrams

t_i = age of the ith section, years

C_{NMOC} = concentration of NMOC, parts per

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if the documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC,

L_o = methane generation potential,

R = average annual acceptance rate,

k = methane generation rate constant,

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per

c = time since closure, years. For active landfill c = O and e^{-kc} = 1

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if the documentation of the nature and amount of such wastes is maintained. (amended April 10, 2003)

(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in Subparagraph (a)(1) is less than 50 megagrams per year, the landfill owner shall submit an emission rate report as provided in Subparagraph 18.3.6(b)(1) of this Part, and shall recalculate the NMOC mass emission rate annually as required under Subparagraph 18.3.1(b)(1) of this Part.

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with Subparagraph 18.3.1(b)(2) of this Part, or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in Subparagraph (a)(3).

(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C of Appendix A or Method 18 of Appendix A (40 CFR 60). If using Method 18 of Appendix A, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

[NOTE: Test methods found in Appendix A of 40 CFR 60 are incorporated by reference in Chapter 13]

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in Subdivision (a)(1)(i) or (a)(1)(ii) using the average NMOC concentration from the collected samples instead of the default value in the equation provided in Subparagraph (a)(1).

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with Subparagraph 18.3.1(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in Subparagraph (a)(4) below.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in Subparagraph 18.3.6(b)(1) of

this Part and retest the site-specific NMOC concentration every 5 years using the methods specified in this Paragraph.

(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A (40 CFR Part 60). The landfill owner or operator shall estimate the NMOC mass emission rate using equations in Subdivisions (a)(1)(i) or (a)(1)(ii) and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in Subparagraph (a)(3) instead of the default values provided in Subparagraph (a)(1). The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.
(amended November 9, 2000)

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with Subparagraph 18.3.1(b)(2) of this Part.

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in Subparagraph 18.3.6(b)(1) of this Part and shall recalculate the NMOC mass emission rate annually, as provided in Subparagraph 18.3.6(b)(1) of this Part using the equations in Subparagraph (a)(1) and using the site-specific methane generation rate constant and NMOC concentration obtained in Subparagraph (a)(3). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in Subparagraphs (a)(3) and (a)(4) if the method has been approved by the Administrator (amended April 10, 2003)

(b) After the installation of a collection and control system in compliance with Section 18.3.4 of this

Part, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in Subdivision 18.3.1(b)(2)(v) of this Part, using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} (Q_{LFG}) (C_{NMOC})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million

(1) The flow rate of landfill gas, Q_{LFG}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of Appendix A (40 CFR Part 60).

(2) The average NMOC concentration, C_{NMOC}, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of Appendix A(40 CFR Part 60). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Director as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part.

(c) When calculating emissions for PSD purposes,the owner or operator of each MSW landfill subject to the

provisions of this Chapter shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in Chapter 3 Subpart 3.5.1(w)(1) using AP-42 or other approved measurement procedures. (amended November 9, 2000)

(d) For the performance test required in Subdivision 18.3.1(b)(2)(iii)(B), Method 25 or Method 18 shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Director as provided by Subdivision 18.3.1(b)(2)(i)(B). If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out})/NMOC_{in}$$

where,

$NMOC_{in}$ = mass of NMOC entering control

$NMOC_{out}$ = mass of NMOC exiting control

18.3.4 Compliance Provisions.

(a) Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part, the specified methods in Subparagraphs (a)(1) through (a)(6) shall be used to determine whether the gas collection system is in compliance with Subdivision 18.3.1(b)(2)(ii) of this Part.

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Subdivision 18.3.1(b)(2)(ii)(A)1. of this Part, one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Director. If k has been determined as specified in Subparagraph 18.3.3(a)(4) of this Part, the value of k determined from the test shall be used. A

value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_oR(e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, $year^{-1}$

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill c = 0 and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_oM_i(e^{-kt_i})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the ith section, megagrams

t_i = age of the ith section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in Subdivisions (a)(1)(i) and (ii). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in Subdivisions (a)(1)(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with Subdivision 18.3.1(b)(2)(ii)(A)2., the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Subdivision 18.3.1(b)(2)(ii)(A)3. of this Part, the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Paragraph 18.3.2(b) of this Part. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative

timeline for correcting the exceedance may be submitted to the Director for approval. (amended November 9, 2000)

(4) Owners or operators are not required to expand the system as required in Subparagraph (a)(3) of this Paragraph during the first 180 days after gas collection system start-up. (amended November 9, 2000)

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Paragraph 18.3.2(c) of this Part. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Director for approval. (amended November 9, 2000)

(6) An owner or operator seeking to demonstrate compliance with Subdivision 18.3.1(b)(2)(ii)(A)4. of this Part through the use of a collection system not conforming to the specifications provided in Section 18.3.8 of this Part shall provide information satisfactory to the Director as specified in Subdivision 18.3.1(b)(2)(i)(C) of this Part demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with Paragraph 18.3.2(a) of this Part, each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in Subdivision 18.3.1(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of: (amended November 9, 2000)

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in Paragraph 18.3.2(d) of this Part. (amended November 9, 2000)

(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Paragraph (d). (amended November 9, 2000)

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of Appendix A (40 CFR Part 60), except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in Subdivisions (c)(4)(i) through (v) below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Paragraph 18.3.2(d) of this Part.

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Subdivision (c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in Subdivision (c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in Subdivision (c)(4)(ii) or (iii) shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in Subdivision (c)(4)(iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding time line for installation may be submitted to the Director for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in Section 3 of Method 21 of Appendix A(40 CFR Part 60), except that "methane" shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in Section 3.1.3 of Method 21 of Appendix A(40 CFR Part 60), the instrument evaluation procedures of Section 4.4 of Method 21 of Appendix A shall be used.

(4) The calibration procedures provided in Section 4.2 of Method 21 of Appendix A (40 CFR Part 60) shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this Section apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

18.3.5 Monitoring of Operations.

Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part,

(a) Each owner or operator seeking to comply with Subdivision 18.3.1(b)(2)(ii)(A) of this Part for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and: (amended November 9, 2000)

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in Subparagraph 18.3.4(a)(3) of this Part; and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in Subparagraph 18.3.4(a)(5) of this Part; and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in Subparagraph 18.3.4(a)(5) of this Part.

(b) Each owner or operator seeking to comply with

Subdivision 18.3.1(b)(2)(iii) of this Part using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment. (amended November 9, 2000)

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in °Celsius or ±0.5°C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts. (amended April 10, 2003)

(2) A device that records flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with Subdivision 18.3.1(b)(2)(iii) of this Part using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with Subdivision 18.3.1(b)(2)(iii) of this Part using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Director as provided in Subdivision 18.3.1(b)2.(i)(B) of this Part describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director shall review the information and either approve it, or request that additional information be submitted. The Director may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in Section 18.3.8 of this Part or seeking to monitor alternative parameters to those required by Sections 18.3.2 through 18.3.5 of this Part shall provide information satisfactory to the Director as provided in Subdivision 18.3.1(b)(2)(i)(B) and (C) of this Part describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with Paragraph 18.3.4(c) of this Part, shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Paragraph 18.3.4(d) of this Part. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

18.3.6 Reporting Requirements.

Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part,

(a) Each owner or operator subject to the requirements of this Chapter shall submit an initial design capacity report to the Director.

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under §60.7(a)(1), 40 CFR and shall be submitted no later than 90 days from the effective date of the Alabama Department of Environmental Management regulations which correspond to these Rules (Note: The effective date of the ADEM regulations State-wide is January 15, 1988). (adopted September 13, 2001)

(2) The initial design capacity report shall contain the following information: (amended November 9, 2000)

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the State permit;

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the State permit, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The Director may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) An amended design capacity report shall be submitted to the Director providing notification of any increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5

million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in Paragraph 18.3.7(f) of this Chapter. (amended November 9, 2000)

(b) Each owner or operator subject to the requirements of this Chapter shall submit an NMOC emission rate report to the Director initially and annually thereafter, except as provided for in Subdivision (b)(1)(ii) or Subparagraph (b)(3). The Director may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in Paragraphs 18.3.3(a) or (b) of this Part, as applicable.

(i) The initial NMOC emission rate report shall be submitted within 90 days from the effective date of the Alabama Department of Environmental Management regulations corresponding to these Rules (Note: The ADEM regulations became effective State-wide on January 15, 1998. The initial NMOC emission rate report and may be combined with the initial design capacity report required in Paragraph (a). Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in Subdivision (b)(1)(ii) and Subparagraph (b)(3).

(ii) If the estimated NMOC emission rate as reported in the annual report to the Director is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Director. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be

submitted to the Director. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

(3) Each owner or operator subject to the requirements of this Chapter is exempted from the requirements of Subparagraphs (b)(1) and (2), after the installation of a collection and control system in compliance with Subparagraph 18.3.1(b)(2) of this Part, during such time as the collection and control system is in operation and in compliance with Sections 18.3.2 and 18.3.4 of this Part.

(c) Each owner or operator subject to the provisions of Subdivision 18.3.1(b)(2)(i) of this Part shall submit a collection and control system design plan to the Director within 1 year of the first report, required under Paragraph (b), in which the emission rate is equal to or exceeds 50 megagrams per year, except as follows: (amended April 10, 2003)

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in Subparagraph 18.3.3(a)(3) of this Part and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2). If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in Subparagraph 18.3.3(a)(4) of this Part, and the resulting NMOC emission rate is less than

50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of Subparagraph 18.3.3(a)(4) of this Part and the resulting site-specific methane generation rate constant (k) shall be submitted to the Director within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

(d) Each owner or operator of a controlled landfill shall submit a closure report to the Director within 30 days of waste acceptance cessation. The Director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of ADEM Admin. Code Chapter 335-13-4. If a closure report has been submitted to the Director, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4), 40 CFR.

(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Director 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with Paragraph (d);

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Director may request such additional information as may be necessary to verify that all of the conditions for removal in Subdivision 18.3.1(b)(2)(v) of this Part have been met.

(f) Each owner or operator of a landfill seeking to comply with Subparagraph 18.3.1(b)(2) of this Part using an active collection system designed in accordance with Subdivision 18.3.1(b)(2)(ii) of this Part shall submit to the Director annual reports of the recorded information in Subparagraphs (f)(1) through (f)(6). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8,40 CFR. For enclosed combustion devices and flares, reportable exceedances are defined under Paragraph 18.3.7(c) of this Part.

(1) Value and length of time for exceedance of applicable parameters monitored under Paragraphs 18.3.5(a),(b),(c), and (d) of this Part.

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under Section 18.3.5 of this Part.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in Section 18.3.2(d) of this Part and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to Paragraphs (a)(3),(b), and (c)(4) of Section 18.3.4.

(g) Each owner or operator seeking to comply with Subdivision 18.3.1(b)(2)(iii) of this Part shall include the following information with the initial performance test report required under §60.8, 40 CFR:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.

18.3.7 Recordkeeping Requirements. (amended November 9, 2000)

(a) Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part, each owner or operator of an MSW landfill subject to the provisions of Paragraph 18.3.1(b) of this Part shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in Subdivision

18.3.1(b)(2)(i)(B) of this Part, each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in Subparagraphs (b)(1) through (b)(4) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with Subdivision 18.3.1(b)(2)(ii) of this Part:

(i) The maximum expected gas generation flow rate as calculated in Subparagraph 18.3.4(a)(1) of this Part. The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Director.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Subparagraph 18.3.8(a)(1) of this Part.

(2) Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with Subdivision 18.3.1(b)(2)(iii) of this Part through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts: (amended April 10, 2003)

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in Subdivision 18.3.1(b)(2)(iii)(B)1. of this Part achieved by the control device.

(3) Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with Subdivision 18.3.1(b)(2)(iii)(B)1. of

this Part through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with Subdivision 18.3.1(b)(2)(iii)(A) of this Part through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18, 40 CFR; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

(c) Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part, each owner or operator of a controlled landfill subject to the provisions of this Chapter shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 18.3.5 of this Part as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under Paragraph 18.3.6(f) of this Part:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test at which compliance with Subdivision 18.3.1(b)(2)(iii) of this Part was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required

under Subdivision (b)(3).

(2) Each owner or operator subject to the provisions of this Chapter shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under Section 18.3.5 of this Part.

(3) Each owner or operator subject to the provisions of this Chapter who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with Subdivision 18.3.1(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this Chapter by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under Paragraph 18.3.5(c) of this Part, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part, each owner or operator subject to the provisions of this Chapter shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this Chapter shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under Paragraph 18.3.4(b) of this Part.

(2) Each owner or operator subject to the provisions of this Chapter shall keep readily accessible documentation of the nature, date of deposition, amount,

and location of asbestos-containing or nondegradable waste excluded from collection as provided in Subdivision 18.3.8(a)(3)(i) of this Part as well as any nonproductive areas excluded from collection as provided in Subdivision 18.3.8(a)(3)(ii) of this Part.

(e) Except as provided in Subdivision 18.3.1(b)(2)(i)(B) of this Part, each owner or operator subject to the provisions of this Chapter shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in Section 18.3.2 of this Part, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity," shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic format is acceptable. (adopted November 9, 2000)

18.3.8 Specifications for Active Collection Systems.

(a) Each owner or operator seeking to comply with Subdivision 18.3.1(b)(2)(i) of this Part shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Director as provided in Subdivision 18.3.1(b)(2)(i)(C) and (D) of this Part:

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and

condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in Subparagraph (a)(1) shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in Subparagraph (a)(1) shall control all gas producing areas, except as provided by Subdivisions (a)(3)(i) and (a)(3)(ii). (amended November 9, 2000)

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under Paragraph 18.3.7(d) of this Part. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Director upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the ith section, megagrams per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the ith section, megagram

t_i = age of the solid waste in the ith section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

The values for k, and C_{NMOC} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in Subparagraph 18.3.3(a)(1) of this Part or the alternative values from Subparagraph 18.3.3(a)(5) of this Part shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in Subdivision (a)(3)(i).

(b) Each owner or operator seeking to comply with Subdivision 18.3.1(b)(2)(i)(A) of this Part shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection

devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with Subdivision 18.3.1(b)(2)(i)(A) of this Part shall convey the landfill gas to a control system in compliance with Subdivision 18.3.1(b)(2)(iii) of this Part through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in Subparagraph (c)(2) shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with Subparagraph 18.3.4(a)(1) of this Part.

18.4 Compliance Schedules.

18.4.1 Except as provided for under Section 18.4.2 of this Part, planning, awarding of contracts, and installation of MSW landfill air emission collection and control equipment capable of meeting the emission standards established under this Chapter, shall be accomplished within 30 months after the date the initial NMOC emission rate report shows NMOC emissions equal or exceed 50 megagrams per year. (amended November 9, 2000)

18.4.2 For each existing MSW landfill meeting the conditions in Paragraphs 18.2.2(a) and (b) whose NMOC emission rate is less than 50 megagrams per year on the effective date of Part 18.3, installation of collection and control systems capable of meeting emission standards established under this Chapter shall be accomplished within 30 months of the date when the condition in Paragraph 18.2.2(c) is met (i.e., the date of the first annual nonmethane organic compounds emission rate which equals or exceeds 50 megagrams per year).

18.5 Petition for Alternative Standards and Compliance Schedules.

A MSW landfill owner or operator may request through Petition, alternative emission standards or a longer compliance schedule that is/are not specified in this Chapter through the following procedures.

18.5.1 Petition Requirements. To enable the Department to rule on the Petition, the following information, where determined applicable by the Department, shall be included in the petition:

(a) A clear and complete statement of the precise extent of the relief sought including specific identification of the particular provisions of the regulations from which the petition is sought. The criteria for relief include:

(1) Unreasonable cost of control resulting from landfill age, location, or basic design:

(2) Physical impossibility of installing necessary control equipment; or

(3) Other factors specific to the landfill that make application of a less stringent standard or final compliance time significantly more reasonable.

(b) An assessment, with supporting factual information, of the impact that the petition will impose on the public health and the environment in the affected area.

(c) Any additional information requested by the Department as necessary to evaluate the petition.

(d) A concise factual statement of the reasons the petitioner believes that alternative emission limits or a longer compliance schedule will not threaten the public health or unreasonably create environmental pollution.

18.5.2 Extension of Prior or Existing Alternative Emission Standards or Compliance Schedule. A petition to extend a prior or existing petition granted by the Department shall be commenced by filing a new petition with the Department in accordance with the requirements of Section 18.5.1 of this Part. To the extent that the information required by Section 18.5.1 of this Part has been included in the prior petition for which extension is sought, a submission of that information shall not be required provided that the petition shall request the incorporation of the record, opinion and order in the prior proceeding into the new petition.

18.5.3 Department Actions on Petitions. On receipt of a petition, the Department will authorize one of the following actions, as they shall determine:

(a) The petition may be dismissed if the Department determines that it is not adequate under Section 18.5.1 of this Part.

(b) The Department may grant the request of the petition, as petitioned or by imposing such conditions as this Division may require in the Major Source Operating Permit, including the establishment of schedules of compliance and monitoring requirements, if EPA consents

to the extension of prior or existing alternative emission standards or compliance schedule as submitted to EPA by the Department.

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

18.5.4 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.

APPENDIX A

Referenced Documents

Appendix A
Reference Documents
(Amended March 10, 2016)

ENVIRONMENTAL PROTECTION AGENCY REGULATIONS
REFERENCE DOCUMENTS - INCORPORATED BY
REFERENCE IN CHAPTERS 13 and 14

NEW SOURCE PERFORMANCE STANDARDS
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The complete text of all finalized EPA regulations incorporated into these regulations is located in the documents listed below. Amendments, revisions, or clarifications of EPA regulations which have been codified in the CFR, as well as of finalized regulations which have not yet been codified, are not included in this listing and interested parties are advised to consult the Federal Register for such amendments or revisions.

CROSS REFERENCE LISTING

Chapter 13 (Part 13.2)	40 CFR Part 60
Subpart A	Subpart A
Subpart D	Subpart D
Subpart Da	Subpart Da
Subpart Db	Subpart Db
Subpart Dc	Subpart Dc
Subpart E	Subpart E
Subpart Ea	Subpart Ea
Subpart Eb	Subpart Eb
Subpart Ec	Subpart Ec
Subpart F	Subpart F
Subpart G	Subpart G
Subpart Ga	Subpart Ga
Subpart H	Subpart H
Subpart I	Subpart I
Subpart J	Subpart J
Subpart Ja	Subpart Ja
Subpart K	Subpart K
Subpart Ka	Subpart Ka

Chapter 13 (Part 13.2)	40 CFR Part 60
Subpart Kb	Subpart Kb
Subpart L	Subpart L
Subpart M	Subpart M
Subpart N	Subpart N
Subpart Na	Subpart Na
Subpart 0	Subpart 0
Subpart P	Subpart P
Subpart Q	Subpart Q
Subpart R	Subpart R
Subpart S	Subpart S
Subpart T	Subpart T
Subpart U	Subpart U
Subpart V	Subpart V
Subpart W	Subpart W
Subpart X	Subpart X
Subpart Y	Subpart Y
Subpart Z	Subpart Z
Subpart AA	Subpart AA
Subpart AAa	Subpart AAa
Subpart BB	Subpart BB
Subpart BBa	Subpart BBa
Subpart CC	Subpart CC
Subpart DD	Subpart DD
Subpart EE	Subpart EE
Subpart GG	Subpart GG
Subpart HH	Subpart HH
Subpart KK	Subpart KK
Subpart LL	Subpart LL
Subpart MM	Subpart MM
Subpart NN	Subpart NN
Subpart PP	Subpart PP
Subpart QQ	Subpart QQ
Subpart RR	Subpart RR
Subpart SS	Subpart SS
Subpart TT	Subpart TT
Subpart UU	Subpart UU
Subpart VV	Subpart VV
Subpart VVa	Subpart VVa
Subpart WW	Subpart WW
Subpart XX	Subpart XX
Subpart BBB	Subpart BBB
Subpart DDD	Subpart DDD
Subpart FFF	Subpart FFF
Subpart GGG	Subpart GGG

Chapter 13 (Part 13.2)	40 CFR Part 60
Subpart GGGa	Subpart GGGa
Subpart HHH	Subpart HHH
Subpart III	Subpart III
Subpart JJJ	Subpart JJJ
Subpart KKK	Subpart KKK
Subpart LLL	Subpart LLL
Subpart NNN	Subpart NNN
Subpart OOO	Subpart OOO
Subpart PPP	Subpart PPP
Subpart QQQ	Subpart QQQ
Subpart RRR	Subpart RRR
Subpart SSS	Subpart SSS
Subpart TTT	Subpart TTT
Subpart UUU	Subpart UUU
Subpart VVV	Subpart VVV
Subpart WWW	Subpart WWW
Subpart AAAA	Subpart AAAA
Subpart CCCC	Subpart CCCC
Subpart EEEE	Subpart EEEE
Subpart IIII	Subpart IIII
Subpart JJJJ	Subpart JJJJ
Subpart KKKK	Subpart KKKK
Subpart LLLL	Subpart LLLL
Subpart OOOO	Subpart OOOO

Chapter 14 (Part 14.2)	40 CFR Part 61
Subpart A	Subpart A
Subpart C	Subpart C
Subpart D	Subpart D
Subpart E	Subpart E
Subpart F	Subpart F
Subpart J	Subpart J
Subpart L	Subpart L
Subpart M	Subpart M
Subpart N	Subpart N
Subpart O	Subpart O
Subpart P	Subpart P
Subpart V	Subpart V
Subpart Y	Subpart Y
Subpart BB	Subpart BB
Subpart FF	Subpart FF

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Subpart A	Subpart A
Subpart B	Subpart B
Subpart D	Subpart D
Subpart F	Subpart F
Subpart G	Subpart G
Subpart H	Subpart H
Subpart I	Subpart I
Subpart L	Subpart L
Subpart M	Subpart M
Subpart N	Subpart N
Subpart O	Subpart O
Subpart Q	Subpart Q
Subpart R	Subpart R
Subpart S	Subpart S
Subpart T	Subpart T
Subpart U	Subpart U
Subpart W	Subpart W
Subpart X	Subpart X
Subpart AA	Subpart AA
Subpart BB	Subpart BB
Subpart CC	Subpart CC
Subpart DD	Subpart DD
Subpart EE	Subpart E
Subpart GG	Subpart GG
Subpart HH	Subpart HH
Subpart II	Subpart II
Subpart JJ	Subpart JJ
Subpart KK	Subpart KK
Subpart MM	Subpart MM
Subpart OO	Subpart OO
Subpart PP	Subpart PP
Subpart QQ	Subpart QQ
Subpart RR	Subpart RR
Subpart SS	Subpart SS
Subpart TT	Subpart TT
Subpart UU	Subpart UU
Subpart VV	Subpart VV
Subpart WW	Subpart WW
Subpart XX	Subpart XX
Subpart YY	Subpart YY
Subpart CCC	Subpart CCC
Subpart DDD	Subpart DDD
Subpart EEE	Subpart EEE
Subpart GGG	Subpart GGG

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Subpart HHH	Subpart HHH
Subpart III	Subpart III
Subpart JJJ	Subpart JJJ
Subpart LLL	Subpart LLL
Subpart MMM	Subpart MMM
Subpart NNN	Subpart NNN
Subpart OOO	Subpart OOO
Subpart PPP	Subpart PPP
Subpart QQQ	Subpart QQQ
Subpart RRR	Subpart RRR
Subpart UUU	Subpart UUU
Subpart VVV	Subpart VVV
Subpart XXX	Subpart XXX
Subpart AAAA	Subpart AAAA
Subpart CCCC	Subpart CCCC
Subpart DDDD	Subpart DDDD
Subpart EEEE	Subpart EEEE
Subpart FFFF	Subpart FFFF
Subpart GGGG	Subpart GGGG
Subpart HHHH	Subpart HHHH
Subpart IIII	Subpart IIII
Subpart JJJJ	Subpart JJJJ
Subpart KKKK	Subpart KKKK
Subpart MMMM	Subpart MMMM
Subpart NNNN	Subpart NNNN
Subpart OOOO	Subpart OOOO
Subpart PPPP	Subpart PPPP
Subpart QQQQ	Subpart QQQQ
Subpart RRRR	Subpart RRRR
Subpart SSSS	Subpart SSSS
Subpart TTTT	Subpart TTTT
Subpart UUUU	Subpart UUUU
Subpart VVVV	Subpart VVVV
Subpart WWWW	Subpart WWWW
Subpart XXXX	Subpart XXXX
Subpart YYYY	Subpart YYYY
Subpart ZZZZ	Subpart ZZZZ
Subpart AAAAA	Subpart AAAAA
Subpart BBBBB	Subpart BBBBB
Subpart CCCCC	Subpart CCCCC
Subpart DDDDD	Subpart DDDDD
Subpart EEEEE	Subpart EEEEE
Subpart FFFFF	Subpart FFFFF
Subpart GGGGG	Subpart GGGGG

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Subpart HHHHH	Subpart HHHHH
Subpart IIIII	Subpart IIIII
Subpart JJJJJ	Subpart JJJJJ
Subpart KKKKK	Subpart KKKKK
Subpart LLLLL	Subpart LLLLL
Subpart MMMMM	Subpart MMMMM
Subpart NNNNN	Subpart NNNNN
Subpart PPPPP	Subpart PPPPP
Subpart QQQQQ	Subpart QQQQQ
Subpart RRRRR	Subpart RRRRR
Subpart SSSSS	Subpart SSSSS
Subpart TTTTT	Subpart TTTTT
Subpart UUUUU	Subpart UUUUU
Subpart WWWWW	Subpart WWWWW
Subpart YYYYY	Subpart YYYYY
Subpart ZZZZZ	Subpart ZZZZZ
Subpart BBBBBB	Subpart BBBBBB
Subpart CCCCCC	Subpart CCCCCC
Subpart DDDDDD	Subpart DDDDDD
Subpart EEEEEE	Subpart EEEEEE
Subpart FFFFFF	Subpart FFFFFF
Subpart GGGGGG	Subpart GGGGGG
Subpart HHHHHH	Subpart HHHHHH
Subpart JJJJJJ	Subpart JJJJJJ
Subpart LLLLLL	Subpart LLLLLL
Subpart MMMMMM	Subpart MMMMMM
Subpart NNNNNN	Subpart NNNNNN
Subpart OOOOOO	Subpart OOOOOO
Subpart PPPPPP	Subpart PPPPPP
Subpart QQQQQQ	Subpart QQQQQQ
Subpart RRRRRR	Subpart RRRRRR
Subpart SSSSSS	Subpart SSSSSS
Subpart TTTTTT	Subpart TTTTTT
Subpart VVVVVV	Subpart VVVVVV
Subpart WWWWWW	Subpart WWWWWW
Subpart XXXXXX	Subpart XXXXXX
Subpart YYYYYY	Subpart YYYYYY
Subpart ZZZZZZ	Subpart ZZZZZZ
Subpart AAAAAAA	Subpart AAAAAAA
Subpart BBBBBBB	Subpart BBBBBBB
Subpart CCCCCCC	Subpart CCCCCCC
Subpart DDDDDDD	Subpart DDDDDDD
Subpart HHHHHHH	Subpart HHHHHHH

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Subpart A	Subpart A
Subpart C	Subpart C
Subpart D	Subpart D
Subpart E	Subpart E
Subpart F	Subpart F
Subpart G	Subpart G

Appendix B

Greenhouse Gas Global Warming Potentials

Global Warming Potentials

Name	CAS No.	Chemical Formula	Global Warming Potential (100 yr.)
Carbon dioxide	124-38-9	CO_2	1
Methane	74-82-8	CH_4	21
Nitrous oxide	10024-97-2	N_2O	310
HFC-23	75-46-7	CHF_3	11,700
HFC-32	75-10-5	CH_2F_2	650
HFC-41	593-53-3	CH_3F	150
HFC-125	354-33-6	C_2HF_5	2,800
HFC-134	359-35-3	$C_2H_2F_4$	1,000
HFC-134a	811-97-2	CH_2FCF_3	1,300
HFC-143	430-66-0	$C_2H_3F_3$	300
HFC-143a	420-46-2	$C_2H_3F_3$	3,800
HFC-152	624-72-6	CH_2FCH_2F	53
HFC-152a	75-37-6	CH_3CHF_2	140
HFC-161	353-36-6	CH_3CH_2F	12
HFC-227ea	431-89-0	C_3HF_7	2,900
HFC-236cb	677-56-5	$CH_2FCF_2CF_3$	1,340
HFC-236ea	431-63-0	CHF_2CHFCF_3	1,370
HFC-236fa	690-39-1	$C_3H_2F_6$	6,300
HFC-245ca	679-86-7	$C_3H_3F_5$	560
HFC-245fa	460-73-1	$CHF_2CH_2CF_3$	1,030
HFC-365mfc	406-58-6	$CH_3CF_2CH_2CF_3$	794
HFC-43-10mee	138495-42-8	$CF_3CFHCFHCF_2CF_3$	1,300
Sulfur hexafluoride	2551-62-4	SF_6	23,900
Trifluoromethyl sulphur Pentafluoride	373-80-8	SF_5CF_3	17,700
Nitrogen trifluoride	7783-54-2	NF_3	17,200
PFC-14 (Perfluoromethane)	75-73-0	CF_4	6,500
PFC-116 (Perfluoroethane)	75-16-4	C_2F_6	9,200
PFC-218(Perfluoropropane)	76-19-7	C_3F_8	7,000
Perfluorocyclopropane	931-91-9	$C\text{-}C_3F_6$	17,340
PFC-3-1-10 (Perfluorobutane)	355-25-9	C_4F_{10}	7,000
(Perfluorocyclobutane)	115-25-3	$C\text{-}C_4F_8$	8,700
PFC-4-1-12 (Perfluoropentane)	678-26-2	C_5F_{12}	7,500
PFC-5-1-14 (Perfluorohexane)	355-42-0	C_6F_{14}	7,400
PFC-9-1-18	306-94-5	$C_{10}F_{18}$	7,500
HCFE-235da2 (Isoflurane)	26675-46-7	$CHF_2OCHClCF_3$	350

Name	CAS No.	Chemical Formula	Global Warming Potential (100 yr.)
-43-10pccc(H-Galden 1040x)	E1730133	$CHF_2OCF_2OC_2F_4OCHF_2$	1,870
HFE-125	3822-68-2	CHF_2OCF_3	14,900
HFE-134	1691-17-4	CHF_2OCHF_2	6,320
HFE-143a	421-14-7	CH_3OCF_3	756
HFE-227ea	2356-62-9	$CF_3CHFOCF_3$	1,540
HFE-236ca12(HG-10)	78522-47-1	$CHF_2OCF_2OCHF_2$	2,800
HFE-236ea2 (Desflurane)	57041-67-5	$CHF_2OCHFCF_3$	989
HFE-236fa	20193-67-3	$CF_3CH_2OCF_3$	487
HFE-245cb2	22410-44-2	$CH_3OCF_2CF_3$	708
HFE-245fa1	84011-15-4	$CHF_2CH_2OCF_3$	286
HFE-245fa2	1885-48-9	$CHF_2OCH_2CF_3$	659
HFE-254cb2	425-88-7	$CH_3OCF_2CHF_2$	359
HFE-263fb2	460-43-5	$CF_3CH_2OCH_3$	11
HFE-329mcc2	67490-36-2	$CF_3CF_2OCF_2CHF_2$	919
HFE-338mcf2	156053-88-2	$CF_3CF_2OCH_2CF_3$	552
HFE-338pcc13(HG-01)	188690-78-0	$CHF_2OCF_2CF_2OCHF_2$	1,500
HFE-347mcc3	28523-86-6	$CH_3OCF_2CF_2CF_3$	575
HFE-347mcf2	E1730135	$CF_3CF_2OCH_2CHF_2$	374
HFE-347pcf2	406-78-0	$CHF_2CF_2OCH_2CF_3$	580
HFE-356mec3	382-34-3	$CH_3OCF_2CHFCF_3$	101
HFE-356pcc3	160620-20-2	$CH_3OCF_2CF_2CHF_2$	110
HFE-356pcf2	E1730137	$CHF_2CH_2OCF_2CHF_2$	265
HFE-356pcf3	35042-99-0	$CHF_2OCH_2CF_2CHF_2$	502
HFE-356mcf3	378-16-5	$CF_3CF_2CH_2OCH_3$	11
HFE-374pc2	512-51-6	$CH_3CH_2OCF_2CHF_2$	557
HFE-449s1 (HFE-7100) Chemical blend	163702-07-6 163702-08-7	$C_4F_9OCH_3$ $(CF_3)_2CFCF_2OCH_3$	297
HFE-569sf2 (HFE-7200) Chemical blend	163702-05-4 163702-06-5	$C_4F_9OC_2H_5$ $(CF_3)_2CFCF_2OC_2H_5$	59
Sevoflurane	28523-86-6	$CH_2FOCH(CF_3)_2$	345
HFE-356mm1	13171-18-1	$(CF_3)_2CHOCH_3$	27
HFE-338mmz1	26103-08-2	$CHF_2OCH(CF_3)_2$	380
(Octafluorotetramethylene) hydroxymethyl group	NA	$X-(CF_2)_4CH(OH)-X$	73
HFE-347mmy1	22052-84-2	$CH_3OCF(CF_3)_2$	343
Bis(trifluoromethyl)-methanol	920-66-1	$(CF_3)_2CHOH$	195
2,2,3,3,3,-pentafluoropropanol	422-05-9	$CF_3CF_2CH_2OH$	42
PFPMIE	NA	$CF_3OCF(CF_3)CF_2OCF_2OCF_3$	10,300