Chapter 4

AIR POLLUTION[1]

Art. I. In General, §§ 4-1 – 4-40
Art. II. Rules, Regulations, Criteria, Standards, § 4-41
Art. III. Part 70 Source Regulation and Permits, §§ 4-50 – 4-68

ARTICLE I. IN GENERAL

Sec. 4-1. Declaration of policy and purpose; title.

(a) It is hereby declared to be the public policy of this city and the purpose of this chapter to achieve and maintain 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, and foster the comfort and convenience of the people.

(b) To these ends it is the purpose of this chapter to provide a program of air pollution prevention, abatement and control.

(c) This chapter shall be known and cited as "The Chattanooga Air Pollution Control Ordinance."
(Code 1986, § 4-1)

Sec. 4-2. Definitions.

In the interpretation and enforcement of this chapter, the following definitions shall apply:

Actual emissions: The calculated rate of emissions of a pollutant from an emissions unit, as determined in accordance with Paragraphs (1), (2) and (3) below:

(1) Actual emissions calculated as of a particular date shall equal the average rate, in tons per year, at which the unit emitted the pollutant during a two-year period which

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[1] **Charter reference**--Authority to regulate boilers, § 2.1(34).

Cross references--Occupational safety and health program for city employees, § 2-271 et seq.; businesses, trades and occupations, Ch. 11; fire prevention, Ch. 17; garbage and refuse, Ch. 18; gas, Ch. 19; health and sanitation, Ch. 20.

State law references--Air pollution control, T.C.A. § 68-201-101 et seq.; local programs, § 68-201-115; local ordinances, § 68-201-202.

precedes the particular date and which is representative of normal source operation. The director may 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. For a new source, actual emissions shall be calculated on the projected operating hours submitted on the installation permit application as representative of normal source operation. If the projected hours are less than 8760 hours per year, then the operating hours shall be specified as a federally enforceable permit condition. The calculation of actual emissions shall include fugitive emissions except where fugitive emissions are expressly excluded by a provision of this chapter.

(2) However, unless the source is in compliance with legally enforceable limits which restrict the operating rate, or hours of operation, or both, the director shall deem actual emissions of the unit to be those calculated using the maximum rated capacity of the source, based on 8760 hours per year, and the most stringent of the following:

a. The applicable standards as set forth in Section 4-41, Rule 15 and Rule 16; or
b. The applicable emissions limitation in this chapter, including those with a future compliance date; or
c. The emissions rate specified as an enforceable permit condition under local, state or federal law.

(3) If there is an emissions unit in place and subject to a permit or certificate of operation which has not begun normal operations on the particular date that an additional unit is to be issued a permit or certificate of operation, then actual emissions of the unit in place shall be calculated as being the potential to emit of the unit on that date.

Air contaminant: Any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic or radioactive substance, waste, particulate, solid, liquid or gaseous matter, or any other materials in the outdoor atmosphere, but excluding uncombined water.

Air flow permeability: The volumetric rate of air flow in cfm, produced by a pressure decrease of 0.5 in. w.g. across a new, clean filtering fabric, divided by the area of the fabric in ft^2. The test air stream is maintained at nominal atmospheric pressure and temperature.

Air pollution: The presence in the outdoor atmosphere of one (1) or more air contaminants or combinations thereof in such quantities and of such duration that they are or may tend to be injurious to

human, plant or animal life, or property, or that interfere with the comfortable enjoyment of life or property, or the conduct of business.

Air pollution control equipment: Any item of equipment which has as its primary function the elimination or reduction of the emissions of an air pollutant.

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

(1) The applicable standards under this chapter or in an applicable state implementation plan, including those with a future compliance date; or

(2) The emissions rate specified as a legally enforceable permit or certificate condition established pursuant to this chapter, including those with a future compliance date.

Asbestos: Any of six (6) naturally occurring hydrated mineral silicates: actinolite, amosite, anthophyllite, chrysolite, crocidolite and tremolite.

Begin actual construction: 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 of underground pipework and construction of permanent storage structures. With respect to a change in method of operation, this term refers to those on-site activities, other than preparatory activities, which mark the initiation of the change.

Best available control technology (BACT) for §4-8(e) and §4-41, Rule 25: An emissions limitation (including a visible emissions limitation), based on the maximum degree of reduction for each pollutant subject to regulation under this chapter which would be emitted from any stationary source or 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 combination techniques for control of each such pollutant. In no event shall the application of "best available control technology" result in emissions of any pollutant which would exceed the emissions allowed by any applicable limitation established under Rules 15 and 16. If a source demonstrates to the director that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions limitation infeasible, a design, equipment, work practice, operations standard or combination thereof, submitted by the source and approved by the director, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standards 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.

Board: The Chattanooga-Hamilton County Air Pollution Control Board.

Building, structure, facility or installation: All of the pollutant-emitting activities which belong in the same industrial grouping, are located on one (1) 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., described by the first two (2) digits in the code which is specified in Standard Industrial Classification Manual 1987).

Bureau: The Chattanooga-Hamilton County Air Pollution Control Bureau.

Calendar day: A 24-hour period of time between 12:01 a.m. and midnight on a numbered day in the Gregorian calendar.

Certificate of Operation: Any certificate of operation issued pursuant to the provisions of this chapter, including a federally enforceable certificate of operation.

Commence: As applied to construction of a major stationary source or major modification, means that the owner or operator has all necessary preconstruction approvals or permits and either has:

(1) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time as determined by the director; 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.

Construction: 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 actual emissions.

Controlled burning: Open burning conducted in such manner or with the aid of such special equipment that emissions are reduced.

Director. The director of the bureau.

Dwelling unit. Any room or group of rooms located within a dwelling and forming a single habitable unit with facilities which are used or intended to be used for living, cooking, sleeping and eating.

Emission: A release into the outdoor atmosphere of air contaminants.

Emission limitation: A requirement established which limits the quantity, rate or concentration of emissions of air pollutants, including any requirement relating to the operation or maintenance of a source to ensure continuous emission reductions or a legally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject, without exception for startup or shutdown.

Emission point: That place where emission occurs.

Emissions unit: Any part or activity of a stationary source which emits or would have the potential to emit any pollutant subject to regulation under this chapter.

Excess air: Air, entering a combustion chamber in excess of the amount theoretically required to complete combustion of materials in the combustion chamber.

Existing source: A source whose installation, modification, alteration or reconstruction commenced on or before the effective date of any provision of this chapter applicable to it is deemed to be an "existing source" for such provision. If any existing source is subsequently altered, repaired or rebuilt so that its potential to emit any air pollutant is increased, or so that it emits any air pollutant it did not previously emit, it shall be reclassified as a "new source", as defined in this chapter.

Federal Clean Air Act: Title 42 United States Code Sections 7401 through 7671q, as amended by Public Law 101-549, November 15, 1990.

Fixed capital cost: The capital needed to provide all the depreciable components.

Fly ash: Particulate matter capable of being airborne, resulting from combustion of fuel or refuse.

Fossil: Coal, coke and liquid petroleum fuels other than gasoline, diesel fuels and kerosene.

Fuel burning equipment: Any equipment, device or contrivance used for the burning of any fuel, except refuse) and all appurtenances thereto, including ducts, breechings, fly ash collecting

equipment, fuel feeding equipment, ash removal equipment, combustion controls, stacks, chimneys, etc., used for indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion. Such equipment includes, but is not limited to, that used for heating water to boiling; raising steam or superheating steam; heating air as in warm air furnaces; furnishing process heat that is conducted through process vessel walls; and furnishing process heat indirectly through its transfer by fluids.

Fugitive dust. Particulate matter emitted from any source other than a flue or stack.

Fugitive emissions: Those emissions which could not reasonably pass through a stack, chimney, vent or other functionally-equivalent opening.

Hand-fired fuel-burning equipment: Fuel-burning equipment in which fresh fuel is manually introduced directly into the combustion chamber.

Hazardous air pollutant: Any air pollutant listed in Title 42 U.S.C. 7412(b), as amended by Public Law 102-187, except for caprolactam (CAS number 105602) which has been deleted from that list as Title 40 CFR Section 63.60 (Revised as of July 1, 1996).

Implementation plan: A plan devised by a governmental unit to provide for the attainment, maintenance and enforcement of any ambient air quality standard.

Incinerator: Refuse-burning equipment as is defined in this section.

Internal combustion engine: Any engine of ten (10) horsepower as rated by S.A.E. methods, or larger, in which the combustion of gaseous, liquid or pulverized solid fuel takes place.

Legally enforceable: All limitations and conditions which are enforceable under local, state, or federal law, including those under this chapter or an implementation plan, and any permit or certificate of operation requirements established pursuant to this chapter.

Lowest achievable emission rate (LAER): For any source, that rate of emission which reflects the more stringent rate of emissions based on the following:

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

(2) The most stringent emission limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall a new or modified source emit any pollutant in excess of the amount allowable under applicable provisions of section 4-41, Rule 15 (New Source Performance Standards), of this chapter. This rate will be determined by the director prior to the issuance of the installation permit.
[*T.A.R. 1200-3-9-.01(2)(e) as revised by the TN APCB 12/14/95 not yet state-effective, pending State procedural requirements completion.*]

Malfunction: Any exceedance arising from sudden and not reasonably foreseeable events beyond the control of the source, including acts of God or *force majeure*, which exceedance requires immediate corrective action to restore normal operation, and that causes the source to exceed an applicable emission limitation provision of this chapter, or of any installation permit or certificate of operation issued thereunder, due to unavoidable increases in emissions attributable to the situation. To the extent the situation is caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or any other preventable upset condition or preventable equipment breakdown, it shall not be considered a malfunction.

Minor pollution source: Any fuel-burning, refuse-burning or process equipment which, without control equipment, would emit less than one thousand (1,000) pounds per year and less than ten (10) pounds per day of air pollutants, and which can otherwise be operated in compliance with this chapter; provided, that this definition shall not be applicable to sources of hazardous air pollutant emissions.

Modification, alteration, reconstruction: Any physical change in, or change in the method of operation of, an air pollutant source which increases the actual emissions of any air pollutant to which an emission standard or limitation applies emitted by such source or its potential to emit any air pollutant to which an emission standard or limitation applies, or which results in the emission of any air pollutant to which an emission standard or limitation applies that was not previously emitted, except that:

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

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

a. An increase in the production rate that exceeds neither the operating design capacity nor the applicable maximum production rate stated in the installation permit or certificate of operation for the source.

b. An increase in hours of operation that does not exceed any limitation on operating hours stipulated as a legally enforceable permit condition of the source;

c. The use of an alternative fuel if the source is designed to accommodate such alternative fuel ; or

d. Required alterations to equipment for the use of an alternative fuel or raw material by reason of an order under section 2(a) and (b) of the federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act.

(3) The burden of proof establishing that a change is excepted under parts a. and b. is on the owner or operator. The director shall rule in a timely fashion on whether a reported change is excepted. Further expansions or restrictions of the definition may be listed in this chapter. In the event of a conflict, the most stringent requirement shall apply. [Origin is T.A.R. 1200-3-2-.01(aa)]

Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.

Multiple chamber incinerator. Any article, machine, equipment, contrivance, structure or part of a structure used to dispose of combustible refuse by burning, consisting of three (3) or more refractory lined combustion furnaces 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.

New source: A source whose installation, modification, alteration or reconstruction is commenced after the effective date of any provision of this chapter to which the source is subject is deemed to be a "new source" for such provision.

Odor-producing equipment: Any equipment, container, device or contrivance which is not process equipment, fuel-burning equipment, refuse-burning equipment or control equipment as defined by this section, that releases substances that produce or may tend to produce odors in the ambient air.

Opacity: The degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Open burning: Unconfined burning of combustible material where no equipment has been provided and used for control of air.

Owner or operator: Any person who owns, leases, operates, controls, or supervises a source.

Owner or operator of a demolition or renovation activity means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls or supervises the demolition or renovation, or both.

Particulate matter: Material other than uncombined water, which is suspended in air or other gases, in a finely divided form, as a liquid or solid.

Person: Any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context.

Plant: Any building, structure, installation, activity or combination thereof which contains any stationary source of air contaminants.

PM10: Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of Title 40, Code of Federal Regulations, Part 50, or by an equivalent method designated in accordance with Part 53 of Title 40, Code of Federal Regulations.

PM10 emissions: Finely divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted into the ambient air as measured by an applicable reference method.

Pollutant: Any air contaminant as defined in section 4-2 or combination of such air contaminants, including any physical, chemical, biological, or radioactive (including source material, special nuclear material, and byproduct material) air contaminant which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any such air contaminant, to the extent the U.S. Environmental Protection Agency has identified such precursor or precursors for the particular purposes for which the term "pollutant" is used.

Potential to emit: 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 legally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

Ppm: Parts per million by volume at a temperature of twenty (20) degrees Celsius and at a pressure of seven hundred sixty (760) millimeters of mercury.

Primary Air Quality Standards: Primary ambient air quality standards define levels of air quality believed adequate, with an appropriate margin of safety, to protect public health.

Process air: Air used principally as a function of the process.

Process emission: Any emission of an air contaminant to the ambient air other than that from fuel-burning equipment, incinerator or open burning.

Process equipment: Any equipment, device or contrivance for changing any materials whatever or for storage or handling of any materials, the use or existence of which may cause any discharge of air pollutants into the open air, but not including that equipment specifically defined as "fuel-burning equipment" or "refuse-burning equipment" in this chapter.

Process weight: The total weight of all materials introduced into any specific process, which process may cause any discharge of air contaminant. Solid fuels discharged will be considered as part of process weight, but liquid and gaseous fuels and combustion and process 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 (1) 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 twenty-four-hour period by twenty-four (24).

Reasonable further progress (RFP): Annual incremental reductions in emissions of the applicable pollutant which are sufficient to provide for attainment of the applicable ambient air quality standards by December 31, 1982, or in the case of the primary ambient air quality standard for photochemical oxidants or carbon monoxide (or both) by December 31, 1987, if attainment is not possible by December 31, 1982.

Reasonably available control technology (RACT): The lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

Reconstruction: Reconstruction will be presumed to have taken place where the fixed capital cost of the new components exceeds fifty (50) percent of the fixed capital cost of a comparable entirely new facility. Any final decisions as to whether reconstruction has occurred shall be based on:

(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

(2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility; and

(3) The extent to which the components being replaced cause or contribute to the emissions from the facility.

A reconstructed facility will be treated as a new stationary source. In determining lowest achievable emission rate for a reconstructed facility any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements shall be taken into account in assessing whether a new source performance standard is applicable to such facility.

Refuse-burning equipment: Any equipment, device or contrivance used for the destruction of garbage and/or other combustible wastes by burning, and all appurtenances thereto.

Salvage operation: Any operation conducted in whole or in part for the salvage or reclaiming of any product or material.

Secondary Air Quality Standards: Secondary ambient air quality standards define levels of air quality believed adequate, with an appropriate margin of safety, to protect the public welfare from any known anticipated adverse effects of the pollutant.

Secondary emissions: 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. 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 be constructed or increase its emissions except 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.

Shutdown: The removal of equipment from operation.

Smoke: Small gas or airborne particles resulting from combustion operations and consisting of carbon and ash and other matter and present in sufficient quantity to be observable.

Source: Any activity, equipment, process or operation which causes or contributes to cause emission or has the potential to emit one or more air pollutants at an emission point or as fugitive emissions, or any combination of items of equipment, processes or operations which when combined cause emission of one or more air pollutant(s) at one or more emission points or as fugitive emissions.

Standard conditions: 14.7 psia and a temperature of seventy (70) degrees Fahrenheit.

Stationary source: Any source of an air pollutant except those resulting directly from an internal combustion engine for transportation purposes or from nonroad engines or nonroad vehicles as defined in Title 42 U.S.C. §7550.
(*Federal Clean Air Act §302(z), 42 USC 7602(z)*)

Start-up: The placing into operation of new, down or off-line equipment.

Suspended particulate: Particulate matter which will remain suspended in air for an appreciable period of time.

Synthetic minor source: A source that would otherwise be considered a "Part 70 source", as defined in section 4-53, due to its potential to emit, if it were not for a mutually agreed upon, more restrictive, federally enforceable limitation, contained in an installation permit or certificate of operation issued pursuant to section 4-8, upon the potential to emit of that source under its physical and operational design. All emissions limitations, controls, and other requirements imposed by such permit or certificate of operation shall be at least as stringent as any other applicable limitations and requirements contained in this chapter and enforceable thereunder.

Test: Any monitoring or sampling relied on by a source to demonstrate or certify compliance with this chapter.

Total suspended particulate: Particulate matter as measured by the method described in Appendix B of Title 40, Code of Federal Regulations, Part 50.

Uncontrolled emissions: The maximum capacity to emit a pollutant absent air pollution control equipment. "Air pollution control equipment" includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal operation. Annual uncontrolled

emissions shall be based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the operating rate or hours of operation, or both. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the uncontrolled emission rate of a source.

Volatile organic compounds (VOCs): Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.

(1) This includes any such organic compound other than the following, which have been determined to have negligible photochemical reactivity: methane; ethane; methylene chloride (dichloromethane); 1,1,1-trichloroethane (methyl chloroform);1,1,2-trichloro 1,2,2-trifluoroethane (CFC-113); trichlorofluoro-methane (CFC-11); dichlorodifluoromethane (CFC-12); chlorodifluoromethane (HCFC-22); trifluoromethane (HFC-23); 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115); 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123); 1,1,1,2-tetrafluoroethane (HCFC-134a); 1,1-dichloro 1,fluoroethane (HCFC-141b);1-chloro 1,1-difluoroethane (HCFC-142b); 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124); pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane (HFC-134); 1,1,1-trifluoroethane (HFC-143a); 1,1-difluoroethane (HCFC-152a); parachlorobenzotrifluoride (PCBTF); cyclic, branched, or linear completely methylated siloxanes; acetone; perchloroethylene (tetrachloroethylene); 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca); 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb); 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee); difluoromethane (HFC-32); ethylfluoride (HFC-161); 1,1,1,3,3,3-hexafluoropropane (HFC-236fa); 1,1,2,2,3-pentafluoropentane (HFC-245ca); 1,1,2,3,3-pentafluoropropane (HFC-245ea); 1,1,1,3,4-pentafluoropentane (HFC-245eb); 1,1,1,3,3-pentafluoropentane (HFC-245fa); 1,1,1,2,3,3-hexafluoropropane (HFC-236ea); 1,1,1,3,3-pentafluorobutane (HFC-365mfc); chlorofluoromethane (HCFC-31); 1 chloro-1-fluoroethane (HCFC-151a); 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a); 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane ($C_4F_9OCH_3$); 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane [$(CF_3)_2CFCF_2OCH_3$]; 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane ($C_4F_9OC_2H_5$); 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane [$(CF_3)_2CFCF_2OC_2H_5$] and perfluorocarbon compounds which fall into these classes:

a. Cyclic, branched, or linear, completely fluorinated alkanes;

b. Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

c. Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

d. Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(2) For purposes of determining compliance with emissions limits, VOC will be measured by the test methods in this chapter or Title 40 Code of Federal Regulations Part 60, Appendix A, which has been incorporated by reference in Chapter 4, as applicable. Where such a method also measures compounds with negligible photochemical reactivity, these negligibly-reactive compounds may be excluded as VOC if the amount of such compounds is accurately quantified, and such exclusion is approved by the Director.

(3) As a precondition to excluding these compounds as VOC or at any time thereafter, the Director shall require an owner or operator to provide monitoring or testing methods and results demonstrating the amount of negligibly-reactive compounds in the source's emissions.

(Code 1986, § 4-2; Ord. No. 9171, §§ 1-3, 5-30-89; Ord. No. 9846, § 1, 3-9-93; Ord. No. 10277, § 1, 8-15-95; Ord. No. 10786, § 1, 10-27-98)

Cross reference--Definitions and rules of construction generally, § 1-2.

Sec. 4-3. Regulations cumulative; compliance with one provision no defense to non-compliance with another; sampling and testing methods.

(a) *Regulations, methods generally.* The provisions of this chapter, as previously adopted and as amended, shall be construed to be cumulative in effect, and it is declared to be the legislative intent that compliance with any one (1) or more provisions of those ordinances or rules and regulations thereof or with any one (1) or more provisions of this chapter shall not be construed as a defense for noncompliance with any other applicable provisions of those ordinances or rules or regulations thereof or with any other applicable provisions of this chapter. In addition to and consistent with specific methods of sampling and analysis described in this chapter, samples shall be taken in such number, duration and location so as to be statistically significant and representative of the condition which the samples purport to evaluate. Where specific materials, equipment, methods or procedures are specified, it shall be permissible to use other materials, equipment or procedures where it has been reliably demonstrated that their use produces results comparable to that which would have been obtained by use of the specified materials, equipment, methods or procedures, including any federally enforceable monitoring or testing method promulgated in Title 40 Code of Federal Regulations Part 51,

Appendix M--Recommended Test Methods for State Implementation Plans, Appendix P--Minimum Emission Monitoring Requirements, and Appendix W--Guideline on Air Quality Models (Revised); Part 60, Appendix A--Test Methods, Appendix B--Performance Specifications, Appendix C--Determination of Emission Rate Change, and Appendix F--Quality Assurance; Part 61, Appendix A--National Emission Standards for Hazardous Air Pollutants, Compliance Status Information, Appendix B--Test Methods, Appendix C--Quality Assurance Procedures, Appendix D--Methods for Estimating Radionuclide Emissions, and Appendix E--Compliance Procedures Methods for Determining Compliance with Subpart I; or Part 75 including Appendices A through I--Continuous Emission Monitoring which have been incorporated by reference in Chapter 4. Any method of sampling or analysis permissible under Section 4-3 of this chapter may be used for the purpose of submission of a compliance certification by a source or for the purpose of establishing whether a person has violated any provision of this chapter or of a compliance plan. In addition, nothing in this chapter precludes the use, even the exclusive use, of 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 or procedure is performed for the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of this chapter or of a compliance plan.

(b) *Procedures for ambient sampling and analysis*. Sampling and analytical procedures required for sulfur dioxide, total suspended particulates, photochemical oxidants, carbon monoxide, lead, nitrogen dioxide, PM_{10}, and nonmethane hydrocarbons may be found in Title 40 Code of Federal Regulations Part 50, Appendices A through K--Reference Methods for the Determination of National Primary and Secondary Ambient Air Quality Standards, which have been incorporated by reference in Chapter 4. The procedure for sampling and analyzing atmospheric fluorides shall conform with the method adopted by the American Society for Testing Materials (ASTM) and found in the Annual Book of ASTM Standards published in the most recent year prior to enactment of this ordinance year by the American Society for testing materials bearing ASTM designation D3266 "Standard Test Method for Automated Separation and Collection of Particulate and Acidic Fluoride in the Atmosphere (Double Paper Tape Sampler Method)". The director may, in advance, approve the use of equivalent or alternative sampling procedures. Each ambient monitor sited in the field for the purpose of generating data for the monitoring procedures listed in section 4-3(b) must have a valid data recovery of at least seventy-five (75) percent. Information which documents the cause of missing data shall be required to be submitted in writing to the director regarding any missing data.
[*New: 1200-3-12-.02(1) and (5)*]

(c) *Source sampling analysis*. The methods set forth in this section shall be applicable for determining compliance with emission limitations contained in this ordinance, except where otherwise specifically provided.

(1) Sample and velocity traverses. Sample and velocity traverses shall be determined by Method 1 or 1A as set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(2) Stack gas velocity determination. Stack gas velocity shall be determined by Method 2, 2A, 2B, 2C, 2D, or 2E as set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(3) Gas analysis for carbon dioxide, oxygen, excess air, and dry molecular weight shall be determined by Method 3, 3A, 3B or 3C as set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(4) Determination of moisture content in stack gases. Moisture content shall be determined by Method 4 as set forth in Title 40 CFR Part 60 Appendix A, which has been incorporated by reference in Chapter 4.

(5) Determination of particulate emissions. Particulate emissions shall be determined by Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, 5H or Method 17 as set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4. PM_{10} emissions shall be determined by Method 201, 201A and 202 as set forth in Title 40 CFR Part 51, Appendix M, which has been incorporated by reference in Chapter 4. Determination of particulate and gaseous mercury emissions from stationary sources shall be made by Method 101, Method 101A, and Method 102 set forth in Title 40 CFR Part 61, Appendix B, which has been incorporated by reference in Chapter 4.

(6) Measurement of sulfur dioxide in stack gases. The approved procedure for measuring sulfur dioxide in stack gases is Method 6, 6A, 6B, or 6C set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(7) Determination of nitrogen oxides in stack gases. Nitrogen oxides in stack gases shall be determined by Method 7, 7A, 7B, 7C, 7D, or 7E set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(8) Determination of sulfuric acid (H_2SO_4) in stack gases. Sulfuric acid in stack gases shall be determined by Method 8 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(9) Visible emissions evaluation procedures. The procedure for evaluating visible emissions shall be Method 9 as set forth in Title 40 CFR Part 60, Appendix A, which

has been incorporated by reference in Chapter 4, provided, however, that the provisions of Rule 3, Section 41, of this ordinance shall supplant the averaging provisions of Method 9, except where otherwise provided. The procedure for evaluating visible emissions resulting from roads and parking areas shall be Tennessee Visible Emission Evaluation Method 1, Visible Emissions Evaluation Instruction Manual, August 1988 Revised 1995, issued by the Tennessee Department of Health and Environment Division of Air Pollution Control, which has been incorporated by reference in Chapter 4.

(10) Determination of carbon monoxide emissions. Carbon monoxide emissions shall be determined by Method 10, 10A, or 10B set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(11) Determination of hydrogen sulfide content of fuel gas streams. Hydrogen sulfide content of fuel gas streams shall be determined by Method 11 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(12) Determination of inorganic lead emissions. Inorganic lead emissions shall be determined by Method 12 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(13) Determination of total fluoride emissions. Total fluoride emissions shall be determined by Method 13A or 13B set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(14) Determination of fluoride emissions from potroom roof monitors. Fluoride emissions from potroom roof monitors shall be determined by Method 14 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(15) Determination of hydrogen sulfide, carbonyl sulfide, and carbon disulfide emissions. Hydrogen sulfide, carbonyl sulfide and carbon disulfide emissions shall be determined by Method 15 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

a. Total reduced sulfur emissions from sulfur recovery plants in petroleum refineries shall be determined by Method 15A set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(16) Semicontinuous determinations of sulfur emissions shall be made by Method 16, 16A or 16B set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(17) Determination of gaseous organic compound emissions. Gaseous organic compound emissions shall be made by Method 18 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(18) Determination of sulfur dioxide removal efficiency. Sulfur dioxide removal efficiency shall be determined by Method 19 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(19) Determination of emissions from stationary gas turbines. Nitrogen oxides, sulfur dioxide, and diluent emissions from stationary gas turbines shall be determined by Method 20 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(20) Determination of volatile organic compound leaks shall be made by Method 21 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(21) Visual determination of fugitive emissions from material sources and smoke emissions from flares shall be made by Method 22 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(22) Determination of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans from stationary sources shall be made by Method 23 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(23) Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings shall be made by Method 24 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(24) Determination of volatile matter content and density of printing inks and related coatings shall be made by Method 24A set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4. Volatile hazardous air pollutant content of a liquid coating shall be determined by Method 311 set forth in Title 40 CFR Part 63, Appendix A, which has been incorporated by reference in Chapter 4, in conjunction with formulation data.

(25) Determination of total gaseous nonmethane organic emissions as carbon shall be made by Method 25, 25A, 25B, or 25C set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(26) Determination of hydrogen chloride emissions from stationary sources shall be made by Method 26 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(27) Determination of vapor tightness of gasoline delivery tank shall be made using the pressure vacuum-test described in Method 27 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(28) Certification and auditing of wood heaters shall be determined using Method 28 set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(29) Determination of air-to-fuel ratio and minimum achievable burn rates for wood-fired appliances shall be made using Method 28A set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(30) Determination of metals emissions. Metals emissions from stationary sources shall be determined using Method 29 as set forth in Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(31) Determination of capture efficiency of volatile organic compounds. Capture efficiency of volatile organic compounds shall be determined using Method 204, 204A, 204B, 204C, 204D, 204E, or 204F set forth in Title 40 CFR Part 51, Appendix M, which has been incorporated by reference in Chapter 4.

(32) Determination of chromium emissions. Chromium emissions and surface tension measurements and recordkeeping in conjunction with Title 40 CFR Part 63, Subpart N--National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks shall be made using Method 306, 306A, and 306B set forth in Title 40 CFR Part 63, Appendix A, which have been incorporated by reference in Chapter 4.

(33) Determination of residual amounts of hazardous air pollutants. Residual amounts of hazardous air pollutants in conjunction with Title 40 CFR Part 63, Subpart U--National

Emission Standards for Hazardous Air Pollutants for the Manufacture of Major Elastomers (Polymers and Resins I) shall be made using Methods 310 A, B and C; Methods 312 A, B and C; and Methods 313 A and B set forth in Title 40 CFR Part 63, Appendix A, which have been incorporated by reference in Chapter 4.

(34) Determination of halogenated solvent cleaning emissions. Emissions in conjunction with Title 40 CFR Part 63, Subpart T--National Emission Standards for Halogenated Solvent Cleaning shall be determined using Method 307 set forth in Title 40 CFR Part 63, Appendix A, which has been incorporated by reference in Chapter 4.

(35) Determination of emissions from waste media. Emissions from waste media shall be determined using Method 301, Method 304A, Method 304B, or Method 305 set forth in Title 40 CFR Part 63, Appendix A, which have been incorporated by reference in Chapter 4.

(36) Determination of beryllium emissions. Beryllium emissions shall be determined using Method 103 and Method 104 set forth in Title 40 CFR Part 61, Appendix B, which have been incorporated by reference in Chapter 4.

(37) Determination of vinyl chloride emissions. Vinyl chloride emissions shall be determined using Method 106, Method 107, and Method 107A set forth in Title 40 CFR Part 61, Appendix B, which have been incorporated by reference in Chapter 4.

(38) Determination of arsenic emissions. Arsenic emissions shall be determined using Method 108, 108A, 108B, and 108C set forth in Title 40 CFR Part 61, Appendix B, which have been incorporated by reference in Chapter 4.

(39) Determination of polonium emissions. Polonium-210 emissions from stationary sources shall be determined by Method 111 set forth in Title 40 CFR Part 61, Appendix B, which has been incorporated by reference in Chapter 4.

(40) Any method of stack sampling in accordance with good professional practice approved by the director may be used. Stack sampling methods promulgated before the effective date of this ordinance by the U.S. Environmental Protection Agency for specified air contaminant sources are considered to be acceptable equivalent methods.

(d) Where any specific test method requires quality assurance audit samples and the audit result does not validate the source's sample within the specified parameters, the source must retest the stack test until such time as the audit result does validate the sample within the specified parameters;

except that the director may waive retesting if the source's stack test sample is in compliance with this chapter even if not validated within the specified quality assurance parameters.

(e) Each owner or operator of an air monitoring network required by the director shall submit in writing to the director a Quality Control/Quality Assurance Plan for approval prior to commencing air monitoring. This plan shall be reviewed and approved prior to start-up of new monitoring networks or whenever any significant change is made to an existing network.
[*New: T.A.R. 1200-3-12-.02(3)*]

(f) All ambient air monitoring data generated by continuous operating monitors shall be submitted on magnetic media in a format acceptable to the director. All ambient air monitoring data generated by intermittent sampling techniques shall be submitted in a format acceptable to the director.

[New: T.A.R. 1200-3-12-.02(4)]

(g) *Sampling, Recording and Reporting Required for Part 70 Sources.*

(1) For any Part 70 source, as defined in Section 4-53, the provisions of this Section 4-3(g) shall also apply.

(2) The director is authorized to require by permit condition any periodic or enhanced monitoring, recording and reporting that the director deems necessary for the verification of the source's compliance with the applicable requirements, as defined in Section 4-53.

a. Monitoring may include, but is not limited to: source testing; in-stack monitoring; process parameter monitoring of material feed rates, temperature, pressure differentials, power consumption or fuel consumption; chemical analysis of feed stocks, coatings or solvents; ambient monitoring; visible emissions evaluations; control equipment performance parameters of pressure differentials, power consumption, air or liquid flow rates or amount of air contaminants collected for disposal; air contaminant leak detection tests from process or control equipment; and any other such monitoring that the director may prescribe.

1. The monitoring must be conducted in a manner acceptable to the director. This includes, but is not limited to: sampling methods, analytical methods, sensor locations and frequency of sampling.

2. The monitoring method must have at least a 95% operational availability rate to prove compliance directly or indirectly with the applicable requirements unless otherwise stipulated by the director. Ambient air monitors shall have their minimum operational availability rates prescribed by Section 4-3. Missing data in excess of these levels shall be grounds for enforcement action.

b. Recordkeeping may include handwritten or computerized records and shall be kept in accordance with the manner approved by the director. The director, or an employee of the Bureau authorized by the director, shall have the authority to inspect the records during reasonable hours at the place where such records are kept. The owner or operator of the Part 70 source must provide copies of the records to the Director upon request. If the records are computerized, the source may provide them to the director in an electronic format compatible with the Bureau's electronic data processing equipment for initial review. Upon discovery of electronic data that may reveal noncompliance, the director shall request hard copy excerpts documenting the noncompliance, and the owner or operator shall comply with the request. All electronic submittals shall be in "read only" format such that the integrity of the recorded submittal will be maintained and cannot be written over with different electronic data.

1. In the absence of a specific recordkeeping procedure, it is the general duty of a person required to keep the records required under this Section 4-3(g) in such order that compliance with the applicable requirement can be readily ascertained.

(3) Reporting shall be in the manner prescribed by the director in the Part 70 permit.

(4) Any report submitted to the director shall be signed by a responsible official consistent with the provisions of Article III (Part 70 Source Regulation and Permits).

(Code 1986, § 4-3; Ord. No. 10277, § 2, 8-15-95; Ord. No. 10297, § 1, 10-3-95; Ord. No. 10786, §§ 2-18, 10-27-98)

Sec. 4-4. Penalties for violation of chapter, permit or order.

(a) Any person who violates or fails to comply with any provision of this chapter, any order of the board or of the director; or who makes any false material statement, representation, or certification in, or omits material information from, any record, report, plan or other document required either to be filed or submitted or maintained pursuant to this chapter; or who falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under this chapter; or fails to pay a fee established under this chapter; commits a misdemeanor and, upon conviction, is punishable as provided in *Tennessee Code Annotated*. For the prosecution of criminal action, the Chattanooga-Hamilton County Air Pollution Control Board and the Director shall follow and comply with the provisions of T.C.A. § 68-201-112 and shall notify the District Attorney General of the violation.

(b) Each separate violation shall constitute a separate offense and upon a continuing violation each calendar day or portion thereof of violation shall constitute a separate offense.

(c) In addition to the fines provided in paragraph (a) of this section, any person who violates or fails to comply with any provision of this chapter, including any fee or filing requirement; or any duty to allow or carry out inspection, entry, or monitoring activities; or who violates the terms and conditions of any permit or certificate of operation issued pursuant to the provisions of this chapter; or who violates any order of the board or of the director, shall be subject to a civil penalty of up to twenty-five thousand dollars ($25,000) per separate violation, as hereinafter provided, to be imposed by the board after hearing, or opportunity for hearing. Provided, however, that the board may, in its discretion and for good cause shown, reduce the amount of a civil penalty or suspend the payment of all or part of the civil penalty imposed. Upon a civil penalty assessed by the board or other order of the board becoming final, the board may institute in the name of the board a civil action in either circuit or chancery court to enforce the order of the board and/or to recover the amount of the civil penalty, plus interest, from the date of the assessment of the penalty. In imposing such civil penalty, the board shall give due consideration to all pertinent factors as justice may require, including, but not necessarily limited to:

(1) The character and degree of injury to, or interference with, the protection of the health, general welfare and physical property of people;
(2) The social and economic value of the air pollutant source;
(3) The technical practicability and economic reasonableness of reducing or eliminating the emission of air pollutants;
(4) The economic benefit gained by the air pollutant source through any failure to comply with the provisions of this chapter or any permit, certificate, or order issued pursuant to the provisions of this chapter;

(5) The amount or degree of effort put forth by the air pollutant source to attain compliance;

(6) Any prior violations of this chapter, violations of orders of the board or director, or violations of conditions imposed upon any permit, certificate, or variance and payment by the violator of penalties previously assessed for the same violation;

(7) The type and character of a violation, including the duration of the violation as established by any credible evidence, and the extent to which the same is in excess of the permissible limits or permissible activity or action;

(8) The past history of pollution control efforts in regard to the taking of appropriate action to control emissions or abate pollution on the part of the person found to be in violation or others subject to entry of any order of the board; and

(9) The size of the business and the economic impact of the penalty on the business.

The plea of financial inability to prevent, abate or control air pollution by any person shall not be a valid defense to liability for a violation of any provision of this chapter.
[*New: T.C.A. 68-201-106 and 68-201-116(c); Clean Air Act § 113(e)*]

(d) In addition to the fines provided for in paragraph (a) of this section and the civil penalties provided for in paragraph (c) of this section, any person who violates or fails to comply with any provision of this chapter, who violates or fails to comply with the terms and conditions of any permit or certificate of operation issued pursuant to the provisions of this chapter, or who violates any order of the board or of the director, shall be liable for any damages to the board or any unit of local government resulting therefrom. Damages to the board or any unit of local government may include any expenses incurred in investigating or enforcing this chapter; in removing, correcting, or terminating the effects of air pollution as well as government-incurred damages or clean-up expenses caused by the pollution or by the violation. These damages shall be in addition to, not in lieu of, the civil penalty provided for above.
[New: T.C.A. 68-201-116(c)]

(e) The amount of the civil penalty to be imposed by the board, pursuant to subsection (c) and subsection (d) of this section, shall in no event exceed the amount of twenty-five thousand dollars ($25,000.00) for each separate violation occurring. In determining the amount of a penalty to be imposed or the type and character of any other order to be entered by the board, the board may give due consideration to pertinent facts including, but not necessarily limited to, the factors listed in section 4-4(c).

(f) In addition to the civil penalties provided in subsections (c) and (d) of this section, the board may order that any person who violates any provision of this chapter, who violates the terms and conditions of any permit or certificate of operation issued pursuant to the provisions of this chapter, or who violates any order of the board, shall cease and desist the operation, use or activity which resulted in such violation.

(g) In addition to the civil penalties provided for in subsections (c) and (d) of this section, the board may order that such person cease and desist from the use of the equipment, activity or other source of air contaminant; or the board may enter a conditional cease and desist order; and such order may include a reasonable delay during which to correct the source of violation.

(h) The liabilities which shall be imposed upon violation of any provision of this chapter, upon violation of the terms and conditions of any permit or certificate of operation issued pursuant to the provision of this chapter, or upon violations of the provision of this chapter, or upon violations of any order of the board, may not be imposed on account of any violation caused by an act of God, war, strike, riot or other *force majeure*.

(i) Action pursuant to this section shall not be a bar to enforcement of this chapter, or enforcement of orders made by the director or the board pursuant to this chapter, by injunction to enjoin any violation of any requirement of this chapter, including conditions of a permit or certificate of operation, without the necessity of a prior revocation of the permit or certificate of operation, or other appropriate remedy, and the board shall have power to institute and maintain in the name of the board any and all enforcement proceedings.

The engaging in any activity in violation of a permit or certificate of operation where that activity is presenting an imminent and substantial endangerment to the public health, welfare or environment may be restrained and enjoined by an action of the appropriate court of record.

(j) The burden of proof requirement on any enforcement hearing or action before the board shall be that which is applicable to civil, and not criminal, proceedings.
(Code 1986, § 4-4; Ord. No. 10277, § 3, 8-15-95)

Sec. 4-5. Limitations of chapter.

This chapter shall not:

(1) Abridge, limit, impair, create, enlarge or otherwise affect substantively or procedurally the right of any person to damages or other relief on account of injury to persons or property and to maintain any action or other appropriate proceeding therefor;

(2) Grant to the board any jurisdiction or authority with respect to air contamination existing solely within commercial and industrial plants, works or shops;

(3) Affect the relations between employers and employees with respect to or arising out of any condition of air contamination or air pollution;

(4) Supersede or limit the applicability of any law or ordinance relating to sanitation, industrial health, or safety;

(5) Apply to locomotive engines or steamboat engines operated solely for recreational, educational or historical purposes; provided, however, that the limitation of this subsection (5) shall not apply to nuisance and enforcement of nuisance provisions of this chapter.

(Code 1986, § 4-5)

Sec. 4-6. Air pollution control board; bureau of air pollution control; persons required to comply with chapter.

(a) *Air pollution control board.*

(1) There is hereby created the Chattanooga-Hamilton County Air Pollution Control Board, hereinafter referred to as "the board," to be composed of ten (10) members, three (3) of whom are to be appointed by the county executive and confirmed by the county board of commissioners; three (3) of whom are to be appointed by the mayor of the city, and confirmed by the city council; three (3) of whom are to be appointed jointly by the county executive and the mayor and confirmed by both the county board of commissioners and the city council. The terms of members shall be four (4) years. Whenever a vacancy occurs, the vacancy shall be filled for the unexpired term of the same member as the original appointment. If a member of the board unjustifiably fails to attend three (3) consecutive regular meetings during any twelve-month period, the chairman of the board shall notify in writing the mayor and city council if appointed by the mayor, or county executive and county board of commissioners if appointed by the county executive, or both if appointed jointly. The mayor or county executive or both shall immediately request the resignation of such board member and a new board member shall be appointed promptly to fill the vacancy.

The administrator of the Chattanooga-Hamilton County Health Department or his designated representative shall be an ex officio voting member; provided, however, that if the administrator of the Chattanooga-Hamilton County Health Department desires to designate a representative such designation shall be made on an annual basis and in writing prior to June thirtieth of each year, and such designated representative shall serve as the ex officio member in the place of the administrator of the

Chattanooga-Hamilton Country Health Department during the year for which he has been designated by the administrator of the Chattanooga-Hamilton County Health Department. Provided further, that should the designated representative resign or otherwise terminate his employment with the Chattanooga-Hamilton County Health Department such shall terminate his appointment to and service upon, the board.

(2) The members of the board shall have the following qualifications: They shall be residents of the county. Industry may have no more than three (3) members active or retired, of whom no more than one (1) shall be from the same major two-digit grouping as defined by the Standard Industrial Classification Manual (1987) of the United States Department of Commerce. The chairman of the board shall have the right to vote on all matters. Members shall be selected for merit without regard to political affiliation; the mayor and county executive in their appointments shall select persons for their ability and all appointments shall be of such nature as to aid the work of the board, to inspire the highest degree of confidence and cooperation in furthering the policy of this chapter. The appointing authority (or authorities) shall, in making an appointment, assure that the membership of the board shall have at least a majority of members who represent the public interest and do not derive any significant portion of their income from persons subject to permits or enforcement orders under this chapter. Any member of the board who has any conflict of interest or potential conflict of interest shall make adequate disclosure of it and abstain from voting on matters related to it.
[New: Clean Air Act Section 128, 42 U.S.C. 7428]

(3) The board shall select annually a chairman, vice-chairman and secretary from among its members as officers; each officer shall have the right to vote on all matters and shall hold office until the expiration of the term for which elected and thereafter until his successor has been elected. The board shall hold at least four (4) regular meetings each year and such additional meetings as the chairman deems desirable, at a place within this county and time to be set by the chairman upon written request of any four (4) members. Six (6) members shall constitute a quorum.

(4) All members of the board shall serve without compensation but shall receive their actual expenses incurred in attending meetings of the board and the performance of any duties as members or by direction of the board.

(5) The board may employ and discharge such employees and consultants as may be necessary for the administration of this chapter with the approval of the mayor, county executive and chairman of the board or with the approval of any two (2) of such

officials. Subject to any applicable restrictions contained in law all departments and agencies of the county shall, upon request, assist the board in the performance of its duties, with or without charge. The board may compensate such other agencies for services.

(b) *Bureau of air pollution control*. The bureau of air pollution control, hereinafter referred to as "the bureau", shall be headed by a director appointed by the board, subject to the approval of the mayor, county executive and chairman of the board or with the approval of any two (2) of such officials. The bureau shall administer this chapter under the overall supervision of the board and shall provide, by rules consistent with law, for the performance by the employees of any act or duty necessary or incidental to the administration of this chapter. No employee shall engage in any business, transaction, or professional activity which is a conflict of interest or a potential conflict of interest with the performance of duties in the public interest on behalf of the board. Any applicant for employment shall, in submitting the application for employment and prior to employment, make a full disclosure of any conflicts or potential conflicts of interest with the work of the bureau which the applicant may have.

(c) *Persons required to comply with chapter*. Persons responsible for compliance with this chapter and who are liable for violation of this chapter shall include, but not necessarily be limited to, all persons owning, occupying, operating, in charge of or in control of any premises, equipment, installations or operations from which or as a result of which any violation of this chapter shall occur whether such persons be proprietor, owner, lessee, tenant, manager, operator or in charge of such premises, equipment, installations or operations, and further, any of the foregoing who having a reasonable opportunity to do so should fail to take all reasonable and necessary steps to terminate or abate any condition or operation which causes or from which arises a violation of this chapter shall be deemed to be in violation of this chapter. Any one (1) or more of the foregoing persons shall be held individually and jointly responsible for compliance herewith and shall be jointly and severally liable for violation hereof.

(Code 1986, § 4-6; Ord. No. 9654, § 2, 1-6-92; Ord. No. 10277, §§ 4-5, 8-15-95)

Cross reference--Administration generally, Ch. 2.

Sec. 4-7. Powers and duties of the board; delegation.

(a) In addition to any other powers otherwise conferred upon it by law, the board shall have power to:

(1) Recommend from time to time to the city council that it adopt, promulgate, amend and repeal provisions of this chapter; provided, however, that prior to making such recommendations a public hearing shall be held on such proposed changes with adequate advance public notice of such hearing;

(2) Hold hearings relating to any aspect of or matter in the administration of this chapter;

(3) Make such determinations and issue such orders as may be necessary to effectuate the purposes of this chapter and enforce the same by all appropriate administrative and judicial proceedings;

(4) Retain, employ, provide for and compensate, within appropriations available therefor, such consultants, assistants, deputies, clerks and other employees including legal counsel, on a full- or part-time basis as may be necessary to carry out the provisions of this chapter and prescribe the times at which they shall be appointed and their powers and duties consistent with section 4-6 of this chapter;

(5) Through its bureau, determine by means of field studies and sampling the degree of air contamination and air pollution in the city and various areas therein;

(6) Recommend ambient air quality standards for the city;

(7) Hold hearings upon appeals from orders of the director, or from the grant or denial by the director of permits, or from any other actions or determinations of the director hereunder for which provision is made for appeal;

(8) Institute in the name of the city in the circuit court or the chancery court of the county legal proceedings to compel compliance with any final order or determination entered by the board or the director;

(9) Settle or compromise in its discretion, with the approval of the city attorney, as it may deem advantageous to the city and in keeping with the purpose and spirit of this chapter, any suit for recovery of any penalty or for compelling compliance with the provisions of any rule or regulation issued hereunder or for compelling compliance with any order or determination entered by the board or the director;

(10) Require access to records relating to emissions which cause or contribute to air contamination;

(11) Issue, suspend and revoke installation permits, temporary operating permits and certificates of operation and other permits and licenses provided for in this chapter, and in accordance with the provisions of this chapter place conditions of installation and operation upon the permits issued by the board;

(12) To provide for forfeitures and penalties for any breach of this chapter, such forfeitures and penalties to be imposed upon a violator only after hearing, or opportunity for hearing, before the board and to provide for forfeitures and penalties upon failure of a violator of this chapter to comply with any order of the board, and to bring legal actions in the name of the city in the appropriate court for the collection of such penalty or forfeiture;

(13) Promulgate techniques for the sampling of emissions from any source of air contaminants and promulgate techniques for predicting the concentration of air pollution at any point.

(14) The Chattanooga-Hamilton County Air Pollution Control Board shall act as the representative of the City of Chattanooga, Tennessee, in connection with any application to the State for the issuance of a Permit under T.C.A. §68-212-101, *et seq*. and/or T.C.A. §68-212-201, *et seq*. or State regulations promulgated pursuant thereto and shall, among other things, discharge the following responsibilities:

14.1 Review permit applications and documentation;

14.2 Participate in a community meeting (or meetings);

14.3 Participate in a public hearing (or hearings);

14.4 Act as an official representative for the City at any "community meeting";

14.5 Prepare and present to the local government recommendations for all reports allowed under the state statutes including the reports representing the interpretation of the local government of the concerns of the community;

14.6 Prepare and present within the recommendations for such report(s) draft proposed summary (or summaries) of issues that the local governing body may review for possible adoption;

14.7 Develop and recommend to local government a proposed decision to accept, reject or modify the permit application;

14.8 To consider in making the aforementioned proposal of a decision those criteria set forth in the Tennessee Statutes [T.C.A. §68-212-108(t)(2); T.C.A. §68-212-107(d)(10), etc.];

14.9 Among other things (but without limitation) to determine, and to report upon, whether or not the location, and operation of the proposed facility conforms to the Chattanooga-Hamilton County Hazardous Waste Management Plan and complies with the applicable portions of the City of Chattanooga, Tennessee, Zoning Ordinance;

14.10 Among other things (but without limitation) to determine and report upon whether or not the proposed facility meets all other criteria set forth in the applicable parts of the State statues;

14.11 To generally monitor the permit process conducted by the State and to maintain liaison with the appropriate state agency (or agencies) during the permitting process, and during the construction process, the start-up and the operation of the facility to assist local government in assuring that the local concerns expressed are adequately considered in the permit process and/or the construction and/or operating process;

14.12 Acting through the Chairman of the Air Pollution Control Board (or his/her designee) to serve as a participant for the City of Chattanooga in any community meeting(s) or any public hearing (s);

14.13 To conduct opinion polls and/or local-government public hearings and to otherwise gather the necessary data for the preparation and report to the Mayor and City Council, of the recommended interpretation of the local government of the concerns of the community and thereafter, if the Mayor and City Council concur in the interpretation, to express (on behalf of local government) the same at all appropriate times and places in the permit process;

14.14 To prepare and report to the Mayor and the City Council a recommendation of the "decision" provided for in T.C.A. §68-212-108(f)(2) of local government to "accept, reject or modify" the application; and thereafter, to express, on behalf of the City of Chattanooga, Tennessee, (or to support the Mayor and/or Chairperson of the City Council in the expression) at all appropriate times and places the decision (or the decisions) of the City of

Chattanooga, Tennessee, as expressed by the City Council and/or the Mayor following the recommendation;

14.15 To monitor the State permit process, and to the full extent permissible under the law (or terms of the permit), to monitor the construction and operation of the facility to assure continuing compliance with the provisions and conditions of the permit and all applicable regulations and statutes; and to maintain close liaison and cooperation with the State of Tennessee in the discharge of the State's responsibility to monitor construction and operation of the facility; and

14.16 To carry out such other duties and responsibilities as may be assigned to it in writing by the Mayor or the City Council (or both) in connection with any application by any person, firm, corporation or other legal entity for a permit to site, construct or operate a "commercial facility" as that term is defined at T.C.A. §68-212-202 for a permit under T.C.A. §68-212-101 *et seq*.

(b) The board shall have the following duties with respect to the prevention, abatement and control of air pollution:

(1) Prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution in this city and report annually to the mayor and city council of the city on progress being made toward the prevention, abatement and control of air pollution;

(2) Encourage voluntary cooperation by persons and affected groups to achieve the purposes of this chapter;

(3) Encourage and conduct studies, investigations and research relating to air contamination and air pollution and their cause, effects, prevention, abatement and control;

(4) Collect and disseminate information and conduct educational and training programs relating to air contamination and air pollution;

(5) Advise, consult, contract and cooperate with other agencies of the state and this city, other local governments, industries, other states, interstate or interlocal agencies, and the federal government, and with interested persons or groups;

(6) Accept, receive and administer grants or other funds or gifts from public or private agencies, including the state and federal governments, for the purpose of carrying out

any of the functions of this chapter. Such funds received by the board pursuant to this subdivision shall be deposited with the city treasurer and held and disbursed by him in accordance with regulations of the board. The board is authorized to purchase or otherwise procure equipment, supplies and services through the general services administration of the federal government, and, when so doing, the board need not comply with the competitive bidding procedures contained in sections 2-341 through 2-367 of this Code relative to purchases, contracts and property disposition. The board is authorized to promulgate such rules for the conduct of its business as it may deem necessary for carrying out the provisions of this chapter.

(c) The board may delegate to the director, and through him to the personnel of the bureau, any powers conferred upon the board by this section with the exception of those enumerated in subdivisions (1), (4), (6), (7) and (9) of subsection (a) of this section. The board may request the assistance of the director and the bureau in the discharge of the duties enumerated in subsection (b) of this section but shall not be relieved thereby of the ultimate responsibility for their fulfillment. The director shall report to the board at the next board meeting any penalties imposed, upon whom imposed and the amount of such penalty.
(Code 1986, § 4-7; Ord. No. 9654, § 2, 1-6-92; Ord. No. 10226, § 1, 5-23-95; Ord. No. 10786, § 62, 10-27-98)

Sec. 4-8. Installation permit and certificate of operation.

(a) *Installation permit.*

(1) No person shall construct, install, or begin any modification, alteration or reconstruction of any fuel-burning, refuse-burning, process or air pollution control equipment or any other source, as defined in section 4-2, until a complete application, together with plans and specifications applicable to the work on the equipment and structures or buildings used in connection therewith, has been filed by the person or his agent in the office of, and has been approved by, the director and an installation permit has been issued for such construction, installation or alteration.

a. For the purposes of Section 4-8(a), any activities listed in Section 4-56(c)(11) due to de minimis emissions level are deemed to be insignificant activities that need not be included in the permit application. Any activities listed in Section 4-56(c)(12) due to size or production rate are deemed to be insignificant activities that must be included in the permit application. These de minimis activities exemptions from permit application requirements shall not be used to avoid any emission limitations, standards, prohibitions or other requirements of

Chapter 4; nor shall they be used to lower the "potential to emit", as defined in Section 4-53, below "major source" thresholds, as defined in Section 4-53.

(2) The plans and specifications, submitted pursuant to paragraph (a)(1) of this section, shall show the form and dimensions of the process, fuel burning, refuse burning, air pollution control or other equipment, together with the description and dimensions of the building or part thereof in which such process, fuel-burning, refuse-burning, air pollution control or other equipment is to be located; identification and description of compliance monitoring devices or activities; the character of the fuel to be used; the maximum quantity of such fuel to be burned per hour; the kind and amount of raw or basic materials processed; the expected air pollutant emission rate; production rates and the operating requirements, including operating schedules; air pollutant concentration; air pollutant concentration; gas volume and gas temperature at each emission point; the location and elevation of each emission point relative to nearby structures and window openings; a flow diagram showing the equipment under consideration and its relationship to other processes, if any, and a general description of these processes; and any other reasonable and pertinent information that may be required by the director. The plans and specifications shall show that the room or premises in which fuel-burning, refuse-burning or process equipment is to be located is provided with adequate ventilation to provide sufficient air for the proper operation of the equipment.

(3) Maintenance or repair or physical transfer of any installed equipment within the premises of the original installation which does not change the capacity of such process or control equipment and which does not involve any change in the method of processing or increase the amount or alter the characteristics of the emission of air pollutants therefrom may be made without an installation permit. The physical transfer of any installed equipment to a location other than within the premises of the original installation shall cause said equipment to be reclassified as new equipment.

(4) The requirement for filing plans and specifications involving the installation, erection, construction, reconstruction, modification, alteration, or repair of, or addition to, any source, including any fuel- or refuse-burning equipment or process equipment or the building of a pilot plant or process, to be used in or to become part of a confidential formula, process or method used in any manufacturing operation is subject to section 4-19, upon the filing with the director of a written request for confidentiality by an owner or operator for such formula, equipment, method or process. Provided, however, that the type and emission rate of each air pollutant shall in no event be deemed to be confidential information subject to the protection of the provisions of this

paragraph and must be disclosed under all circumstances; and provided further that the person claiming the protection of this paragraph shall institute and conduct a self-monitoring system and shall report the results thereof when and as required by the director. The confidentiality of such formula, equipment, method or process shall in no way relieve the person or persons responsible for the confidential formula, equipment, method or process from complying with all other provisions of this chapter.

(5) No construction, installation, modification, alteration or reconstruction shall be made which is not in accordance with the plans, specifications, and other pertinent information upon which the installation permit was issued unless prior written approval of the director is obtained.

(6) Violation of the installation permit shall be sufficient cause for the director to stop all work, and the director is hereby authorized to seal the installation. No further work shall be done until the director is assured that the condition in question will be corrected and that the work will proceed in accordance with the installation permit.

(7) *Failure to obtain installation permit*. If work which requires an installation permit is begun without having obtained an installation permit, or if work is performed other than in accordance with the plans and specifications filed with and approved by the director to obtain the installation permit, the director may grant such permit; provided, however, that the installation permit fee is doubled in all such cases. If work upon equipment which requires an installation permit under this chapter is begun without having obtained such permit, or if faulty work has been performed, the director may grant such permit, conditioned upon the removal of all faulty work; provided, however, that this provision shall not be construed as authorizing such violation.

(8) If the work authorized under the installation permit is not commenced and continued within one (1) year after the date of issuance of the installation permit, the permit shall become void and all fees shall be forfeited, unless an extension of time is warranted and granted by the director. An installation permit shall be valid for twelve (12) months after the date of its issuance. An extension of time may be granted by the director to a source that notifies the director, in writing not later than thirty (30) days before expiration of its installation permit, of the request for an extension, the reason for extension, and the duration of the requested extension.

(9) *Emergency repair*. An emergency repair other than as specified in paragraph (a)(3) of this section may be made prior to the application for an installation permit if serious consequences may result if the repair were deferred. When such repair is made, the

owner or operator concerned shall notify the director on the first business day after the emergency commenced and file an application for an installation permit if such permit is otherwise required by this chapter.

(10) Upon review of the required plans and specifications, an application shall be approved or rejected within a reasonable time after it is filed in the office of the director. Upon the approval of the application and upon the payment of the prescribed fees, the director shall issue an installation permit. Issuance of an installation permit will not be construed to indicate compliance with the requirements of the building code of this municipality or any other requirement of this municipality or of the air pollution control ordinance of this municipality.

(11) An installation permit is not transferable from one person to another person, nor from one air pollutant source to another air pollutant source, nor from one location to another location. An application for an installation permit by the new owner or operator of the new air pollutant source, or by the owner or operator of the air pollutant source at the new location, shall be required as if there had been no previous permit issued. An existing source would retain its status as an existing source. The permits contemplated by this section shall be for the control of air pollutants. This section shall apply to fuel-burning equipment, refuse-burning equipment, process equipment which causes air emissions, or any other source or equipment that has the potential to emit air pollutants and to air pollution control equipment, but nothing contained herein shall require application for, or issuance of, a permit for any overall manufacturing process provided permits are applied for, and obtained, for the foregoing items of equipment in the overall process.

[*New: T.A.R. 1200-3-9-.03(6)*]

(12) The director shall reject any application for an installation permit and shall require resubmission of an application and further tests or information if:

a. The proposed construction, installation or modification, alteration or reconstruction or the anticipated emission of air pollutants does not meet the provisions of this chapter; or

b. The proposed emission control equipment is of a type reasonably anticipated by the director, based upon tests or other available evidence, not to be adequate for its intended usage; or

c. The proposed construction, installation or modification, alteration, or reconstruction will interfere with the attainment or maintenance of an ambient air quality standard contained in Section 4-41, Rule 21.

(13) The director or a designated representative shall have the right to enter the premises and inspect the installation in progress at any reasonable time. For the purposes of this paragraph, "any reasonable time" shall mean any time construction or installation activity is being conducted at the source.
[Formerly Section 4-8(a)(15)]

(14) The following fee schedule shall apply to the issuance of all installation permits. A source shall be required to pay the required fee prior to issuance of an installation permit to that source. Said fees shall be collected by the director and remitted to the City of Chattanooga treasurer as fiscal agent for the board who shall accumulate such fees in an account dedicated to the board for air pollution control activities. *[Formerly Section 4-8(a)(16)]*

SCHEDULE 4-8-A-I. FUEL-BURNING EQUIPMENT

Fees shall be assessed based upon the design fuel consumption per unit as expressed in thousands of British Thermal Units (BTU) per hour, using gross heating values of the fuel.

Million BTU Per Hour	
0.5 to 4.99	$ 350.00
5 to 14.99	415.00
15 to 99.99	480.00
100 or greater	640.00

(NOTE: One boiler horsepower is equivalent to 33,472 BTU per hour)

SCHEDULE 4-8-A-II. INCINERATORS

Fees shall be assessed based upon the manufacturers rated input as expressed in pounds per hour.

Input - Pounds Per Hour	Fee
Up to 200	$ 65.00

200 to 599	130.00
600 to 999	195.00
1,000 to 1,999	255.00
2,000 to 4,999	320.00
5,000 to 9,999	385.00
10,000 or greater	450.00

+ $60.00 for each additional 100 lbs/hr over 10,000 lbs/hour

SCHEDULE 4-8-A-III. PROCESS EQUIPMENT

Fees shall be assessed and based upon the process weight per hour as expressed in pounds per hour.

Input Process Weight (Pounds Per Hour)	Fee
Up to 999	$ 130.00
1,000 to 9,999	225.00
10,000 to 49,999	320.00
50,000 to 149,999	415.00
150,000 to 499,999	510.00
500,000 to 999,999	605.00
1,000,000 or greater	640.00

(NOTE: Examples of this type of equipment include: chemical processing equipment, crushing, grinding or milling equipment, metal forming equipment.)

SCHEDULE 4-8-A-IV. ODOR PRODUCING EQUIPMENT

A fee of two hundred fifty-five dollars ($255.00) per unit shall be assessed.
(NOTE: Examples of this type include: tar and asphalt kettles, varnish and paint heating kettles, rendering kettles.)

SCHEDULE 4-8-A-V. MISCELLANEOUS

Any article, machine, equipment or other contrivance which is not included in the preceding schedules shall be assessed a fee of two hundred fifty-five dollars ($255.00) per unit.

(b) (Reserved)

(c) *Certificate of Operation.*

(1) No person shall cause, suffer, allow or permit the operation of any new or modified, altered, or reconstructed fuel-burning, refuse-burning, process, or air pollution control equipment, or any equipment pertaining thereto, or any other source as defined in section 4-2 for which an installation permit was required or was issued until a certificate of operation has been issued for the source by the director. A certificate of operation is not transferable from one person to another person, nor from one air pollutant source to another air pollutant source, nor from one location to another location. An application for a certificate of operation by the new owner or operator of the air pollutant source, shall be submitted to the Director prior to a transfer of ownership identifying the new owner and any other anticipated changes in operation. An existing source would retain its status as an existing source, except where the source has been shutdown for more than two years. The director is hereby authorized to seal equipment in operation for which a certificate of operation was not obtained as required in this chapter.
[*Formerly in Section 4-8(b)(1); New T.A.R. 1200-3-9-.03(6)*]

(2) The owner or operator of any source for which an installation permit is required shall give notification to the director when the work is completed and ready for final inspection. This notification to the director shall include a description of:

a. The equipment or air pollution control equipment or activity in consideration;

b. Any air pollution control equipment connected or attached to, or serving, or served by the emission unit unless up to date information is on file with the director; and

c. Any reasonable additional information, evidence or documentation to show that the completed work is in accord with the original plans as stipulated in section 4-8(a) .
[Formerly in Section 4-8(b)(1)]

(3) Not later than sixty (60) days after achieving the maximum production rate at which the source will be operated, and not later than 150 days after initial startup of such source, and not later than 150 days after issuance of the initial certificate of operation for such source, the owner or operator of such source shall complete any required performance test(s) and deliver to the director a written report of the results of such performance

test(s). An extension of time may be granted by the director to a source that notifies the director, in writing not later than one hundred twenty (120) days after issuance of the initial certificate of operation for such source, of the request for an extension, the reason for extension, and the duration of the requested extension, except not to any source subject to section 4-41, Rule 15. Failure to operate successfully under test within the limitations and requirements of this chapter shall constitute sufficient grounds for the director to require that changes in the source be made; to reopen the certificate of operation for the revision of its terms and conditions or the addition of new terms and conditions; or to revoke or suspend the certificate of operation, as appropriate. Responsibility for proof and all expenses incurred in conducting the tests shall be borne by the owner or operator of such equipment, or the agent(s) of that person. The director may, if in the opinion of the director the nature of the source in consideration or the use to which it is to be put so justifies, waive the demonstration or test operation, but such waiver shall in no manner provide immunity from prosecution for violations of the other requirements of any applicable law.
[*Formerly Section 4-8(b)(2)*]

(4) The director or a designated representative shall have the right to enter the source premises to inspect the source and observe any performance test or operation of the equipment for which a certificate of operation is issued, as provided in Section 4-16.
[Formerly Section 4-8(b)(3)]

(5) Prior to operating any source subject to section 4-8, the owner or operator shall obtain a certificate of operation issued by the director. Each owner and operator of a source that has been issued a certificate of operation shall adhere to the terms and limitations of such certificate of operation throughout its term. All emissions limitations, controls and other requirements imposed by a certificate of operation will be at least as stringent as those contained in this chapter or enforceable under this chapter. Said certificate(s) of operation shall be kept on file at the source premises and made available to bureau representatives upon request.
[Formerly Section 4-8(b)(4)]
[*New: federal enforceability criteria in 54 FR 27282, 6/28/89*]

(6) Each certificate of operation shall properly identify the equipment to which it pertains and shall specify the class of fuel, type of raw or intermediary material used, if any, for which the equipment and appurtenances have been designed or which have been successfully used in the operating test. The owner or operator or the agent of the owner or operator shall be responsible for notifying the director that equipment for which an initial certificate of operation has been issued has completed any required

testing and is ready for permanent operation. With such notification the owner or operator or agent shall submit to the director test and operation data as required by the director for use as evidence that the equipment or source will operate in compliance with all provisions of this chapter.
[Formerly in 4-8(c)(1)]

(7) *Term of a Certificate of Operation.* Each initial certificate of operation shall be issued for up to a one-year period. Each renewal certificate of operation shall be issued for a period of up to five years. Application for renewal of a certificate of operation for a source shall be made in writing upon forms furnished by the bureau not less than sixty (60) days prior to expiration of the certificate for which renewal is sought. Disclosures of information, tests and other prerequisites to the issuance of an installation permit or initial certificate of operation may be required by the director prior to the issuance of a renewal certificate of operation. The director may refuse to renew a certificate of operation or may require further tests or information if the director determines that the equipment is not in compliance with all the provisions of this chapter. The director may renew a certificate of operation and impose special conditions upon a source that is not in full compliance with this chapter but is subject to a legally enforceable compliance schedule, or upon a source that has appealed other special conditions to the board if that source has filed a timely appeal pursuant to section 4-18. Expiration of any certificate of operation terminates the source's right to operate any equipment or process previously covered by that certificate of operation, except where expiration has occurred due to delay on the part of the Bureau.
[Formerly in 4-8(c)(1)]

(8) *Sampling and Testing.*

a. Authorization. Whenever the director has reason to believe that the emission limits required by this chapter are being violated by an existing source, the director may require the owner to conduct or to have conducted at the owner's expense tests to determine the emission level of specific air pollutants. The director may require the applicant for an installation permit or a certificate of operation or a federally enforceable certificate of operation, at either a new or an existing source, to conduct, or to have conducted, such tests as are necessary to establish the amount of air pollutants emitted from such source. Such tests shall be conducted in a manner approved by the director. The director shall be notified in writing of any testing at least thirty (30) days prior to such testing, and the director or a representative of the director shall be

permitted to witness any testing. The director may conduct tests of air pollution emissions from any source.
[Formerly 4-8(c)(2)a.; New T.A.R. 1200-3-10-.01)]

b. Test openings and Access, Scaffolding and Facilities.

1. Existing Sources. When tests of existing equipment are deemed necessary by the director and the director elects to conduct such test himself or have his representative conduct such testing the owner shall provide, at no expense to the bureau, reasonable and necessary openings in stacks, vents, and ducts along with safe and easy access thereto including a suitable power source to the point of testing for proper determination of the level of air pollutant emissions and other pertinent facilities as requested by the director. Such facilities may be either permanent or temporary, at the discretion of the owner subject to these provisions; and shall be suitable for determination consistent with the emission limits established in this chapter; and shall comply with all laws and regulations concerning safe construction of, and safe practice in connection with such facilities; provided, however, that if the owner elects to provide temporary facilities then in the event future tests are desired by the director the permittee shall, at no expense to the bureau, provide further facilities when requested to do so by the director. *[Formerly 4-8(c)(2)b.; New T.A.R. 1200-3-10-.01)]*

2. New Facilities. When tests of new equipment or sources are deemed necessary by the director and the director elects to conduct such test himself or have his representative conduct such testing the owner shall provide, at no expense to the bureau, reasonable and necessary openings in stacks, vents, and ducts along with safe and easy access thereto including a suitable power source to the point of testing for proper determination of the level of air pollutant emissions and other pertinent facilities as requested by the director. Such facilities may be either permanent or temporary, at the discretion of the owner subject to these provisions; and shall be suitable for determination consistent with the emission limits established in this chapter; and shall comply with all laws and regulations concerning safe construction of, and safe practice in connection with such facilities; provided, however, that if the owner elects to provide temporary facilities then in the event future tests are desired by the director the permittee shall, at no expense to

the bureau, provide further facilities when requested to do so by the director. The owner or operator shall provide, for any stack or duct at a new source, adequate sampling facilities as follows:

(i) Sampling ports of a size, number, and location as the director may require;

(ii) Safe access to each port; and

(iii) A suitable power source to the point of testing for proper determination of the level of air pollutant emissions.

(New T.A.R. 1200-3-10-.01)

3. Periodic Testing. The director may require the owner to conduct or to have conducted periodic tests as are necessary to establish the amount of air pollutants emitted from the source. The nature, extent and frequency of such required testing shall be specified in the certificate of operation. Such tests shall be made at the expense of the owner and shall be conducted in a manner approved by the director. The director shall be supplied with such data as stipulated in the certificate of operation or federally enforceable operating permit.
(New T.A.R. 1200-3-10-.01)

c. Bureau test. Nothing in this chapter concerning tests conducted by and paid for by any owner or authorized agent of the owner shall be deemed to abridge the rights of the director or a representative of the director to conduct separate or additional tests if the director so requires on behalf of the board or the bureau of air pollution control at the bureau's expense, except regarding test openings as discussed in paragraph (c)(8)b. of this section, covering test openings and access. *[Formerly 4-8(c)(2)c.]*

d. Cost of tests other than section 4-8(c)(8)b.3. Periodic Testing. The owner or operator is liable for the cost of initial tests of any equipment and tests resulting from any change in the activity, equipment, methods or conditions of operation of the source. Initial tests will include all testing performed for the purpose of demonstrating compliance with this chapter for installation permits and for any certificate of operation. The data obtained during any such testing shall be made available to the director and to the owner. *[Formerly 4-8(c)(2)d.; New T.A.R. 1200-3-10-.01]*

e. Methods and procedures. Sampling and analytical determinations to ascertain compliance with this chapter shall be made in accordance with methods and procedures specified in section 4-3. *[Formerly 4-8(c)(2)e.]*

(9) When a certificate of operation is refused, suspended, revoked, or has expired, the director is authorized to seal the process or control equipment until the owner or operator complies with the provisions of this chapter, and no person shall operate any equipment which requires a certificate of operation until such certificate is obtained. *[Formerly 4-8(c)(3)]*

(10) The director shall have authority to require owners and operators of stationary sources to install, maintain and use emission monitoring devices and to make periodic reports to the director on the nature and amounts of emissions from such stationary sources. The director shall have authority to make such data available to the public as reported and as correlated with any applicable emission standards or limitations. *[Formerly 4-8(c)(4)]*

(11) *Federally Enforceable Certificates of Operation.* All requirements and provisions of this chapter which are applicable to sources issued certificates of operation are also applicable to sources issued federally enforceable certificates of operation, and such requirements are cumulative. A federally enforceable certificate of operation may be applied for and issued under the requirements of section 4-8(c)(11) only after section 4-8(c)(11) has been approved by U.S. EPA into the State Implementation Plan. This municipality retains the authority to designate from time to time which sources or source categories, in addition to those Part 70 sources seeking to qualify themselves for synthetic minor source status, shall be allowed or required to obtain federally enforceable certificates of operation under section 4-8(c)(11). In addition:

a. The owner and operator of a source that has been issued a federally enforceable certificate of operation shall adhere to its terms and limitations throughout the term of the certificate of operation and any renewal or revision of it. This requirement of adherence shall be legally enforceable, and a violation of same shall constitute a violation of this chapter.

b. Nothing in section 4-8(c)(11) shall be construed to require that a certificate of operation be federally enforced. Nothing in section 4-8(c)(11) shall be construed to impede or impair enforcement of a federally enforceable certificate of operation under other provisions of this chapter or state or federal

law. It is the declared legislative intent of this municipality to recognize that any part of this municipality's air pollution control ordinance that is an EPA-approved part of the state implementation plan is also federally enforceable, subject to the provisions and limitations of the federal Clean Air Act; and that any permit or certificate of operation issued under any other part of the air pollution control ordinance of this municipality and any requirement or limitation contained in such ordinance may be enforced federally to the extent that federal law provides for such enforcement. A permit issued under this section 4-8(c)(11) does not authorize or allow a relaxation of any otherwise applicable federal requirements.

c. The director or the board, in issuing a federally enforceable certificate of operation, shall assure that all emissions limitations, controls and other requirements imposed by such certificate of operation are at least as stringent as any other applicable limitations and requirements contained in, or enforceable under, the State Implementation Plan. The director or the board shall not issue a federally enforceable certificate of operation that waives or makes less stringent any limitations or requirements contained in or issued pursuant to the State Implementation Plan or that are otherwise federally enforceable under it.

d. The limitations, controls and requirements in a federally enforceable certificate of operation shall be permanent, quantifiable and otherwise enforceable as a practical matter.

e. Any federally enforceable certificate of operation issued to a synthetic minor source shall also contain a statement of basis comparing the source's potential to emit with the synthetic limit to emit and a description of the procedures to be followed that will ensure that the limit on which the director or the board bases a determination that a source is a synthetic minor source and not a major source, as those terms are defined in section 4-53, is not exceeded.

f. Nothing in section 4-8(c)(11) shall be construed to prohibit enforcement of a federally enforceable certificate of operation under the general enforcement provisions of this ordinance or of state or federal law.

g. The director shall give notice to U.S. EPA and the general public at least thirty (30) days in advance of a public hearing on the issuance of a proposed federally enforceable certificate of operation and shall provide at least thirty

(30) days for public comment. A proposed change to the potential to emit air pollutants or hazardous air pollutants of any source previously determined by the Board to be a synthetic minor source and issued one or more federally enforceable certificates of operation that have not yet expired, is not subject to subsequent public participation requirements regarding the proposed change so long as the proposed change would not result in a net increase in the potential-to-emit of any air pollutant or any hazardous air pollutant, as determined by the Director. The director shall provide U.S. EPA with a copy of a proposed certificate of operation intended to be federally enforceable at the same time notice is provided. Such notice shall be given by publication in a newspaper of general circulation in Hamilton County, Tennessee. Such advance notice must be given and a public hearing must be held prior to issuance of any federally enforceable certificate of operation to any source. The director shall, in a timely manner, provide U.S. EPA a copy of the final certificate of operation intended to be federally enforceable.

h. If U.S. EPA deems such a proposed certificate of operation to fail to qualify as a federally enforceable certificate of operation, then the director shall notify the applicant of the position taken by U.S. EPA and either (1) the applicant may resubmit the application in amended or modified form for further processing under this section 4-8(c)(11) or (2) the director may issue a certificate of operation stating on its face that it is deemed not be federally enforceable.

i. A source that has submitted a written request for synthetic minor source status to the director by September 1, 1995, with apparently approvable proposed physical or operational limitations on its potential to emit, or both, including a statement of basis comparing the source's potential to emit with its proposed synthetic limit to emit and a description of the procedures to be followed that will ensure its proposed limitations are not exceeded, will remain subject to the fees set forth in §4-8 and not to the Part 70 Operating Permit Program fees set forth in §4-60. If the board or the director determines after November 1, 1995, that such source is not eligible for synthetic minor source status, such source shall be liable for Part 70 Operating Permit Program fees set forth in §4-60 retroactive to November 1, 1995, with interest pursuant to *Tennessee Code Annotated* Section 47-14-121.

(12) *Fees for Certificate(s) of Operation.*

a. Fees. A source shall be required to pay the required fee prior to issuance of any certificate of operation to that source and to maintain the certificate of operation, once issued.

b. The following fee schedule shall apply to the initial issuance of any certificate of operation. Said fees shall be collected by the director and remitted to the City of Chattanooga treasurer as fiscal agent for the board, who shall accumulate such fees in an account dedicated to the board for air pollution control activities.

INITIAL CERTIFICATES OF OPERATION

SCHEDULE 4-8-C-I. FUEL-BURNING EQUIPMENT

Million BTU per Hour	Fee
0.5 to 4.99	$ 480.00
5 to 14.99	545.00
15 to 99.99	640.00
100 or greater	735.00

SCHEDULE 4-8-C-II. INCINERATORS

Input - Pounds Per Hour	Fee
Up to 200	$ 225.00
200 to 599	255.00
600 to 999	290.00
1,000 to 1,999	320.00
2,000 to 4,999	350.00
5,000 to 9,999	385.00
10,000 or greater	415.00

+ $30.00 for each additional 100 lbs/hr over 10,000 lbs/hr

SCHEDULE 4-8-C-III. PROCESS EQUIPMENT

Input Process Weight (Pounds Per Hour)	Fee
Up to 999	$ 290.00

1,000 to 9,999	385.00
10,000 to 49,999	480.00
50,000 to 149,999	575.00
150,000 and greater	640.00

SCHEDULE 4-8-C-IV. ODOR PRODUCING EQUIPMENT

Each unit shall be assessed a fee of $320.00.

SCHEDULE 4-8-C-V. MISCELLANEOUS

Each unit shall be assessed a fee of $320.00.

c. *Renewal Certificate of Operation Annual Fees.* A source that has applied for renewal of one or more certificates of operation shall pay the required annual fee prior to issuance of any renewal certificate(s) of operation to it. Subsequent to issuance of any renewal certificate(s) of operation to a source, the source shall pay the required annual fee throughout the term of the permit, not later than the anniversary of issuance of any renewal certificate(s) of operation. Said fees shall be collected by the bureau director and remitted to the treasurer of the City of Chattanooga as the fiscal agent of the board, who shall accumulate such fees in an account dedicated to the board for air pollution control activities.

SCHEDULE 4-8-C-VI. FUEL-BURNING EQUIPMENT

Million BTU per Hour	Fee
0.5 to 4.99	$ 225.00
5 to 14.99	255.00
15 to 99.99	290.00
100 or greater	330.00

SCHEDULE 4-8-C-VII. INCINERATORS

Input in Pounds Per Hour	Fee

Up to 200	$ 50.00
200 to 599	65.00
600 to 999	95.00
1,000 to 1,999	130.00
2,000 to 4,999	160.00
5,000 to 9,999	195.00
10,000 or greater	225.00

SCHEDULE 4-8-C-VIII. PROCESS EQUIPMENT

Input Process Weight (Pounds Per Hour)	Fee
Up to 999	$ 160.00
1,000 to 9,999	225.00
10,000 to 49,999	290.00
50,000 to 149,999	350.00
150,000 to 499,999	415.00
500,000 to 999,999	480.00
1,000,000 or greater	545.00

SCHEDULE 4-8-C-IX. ODOR PRODUCING EQUIPMENT

Each unit shall be assessed a fee of $130.00.

SCHEDULE 4-8-C-X. MISCELLANEOUS

Each unit shall be assessed a fee of $130.00.
[*Formerly Section 4-8(c)(5)*]

(d) *General provisions.*

(1) The issuance by the director or board of any installation permit or certificate of operation shall not be held to exempt the person to whom the permit or certificate of operation was issued, or any other person subject to this chapter, from prosecution for any violation of any provisions of this chapter, or from action under any other provisions of this chapter or any other provisions of law. [*Formerly 4-8(d)(2)*]

(2) No person shall cause, suffer, allow or permit the operation of any equipment or installation subject to the provisions of this chapter in violation of an authorized seal of said equipment or installation. *[Formerly 4-8(d)(3)]*

(3) The provisions of this section shall not apply to fuel-burning equipment used exclusively for heating the dwellings of less than three (3) families; nor to equipment for burning gas, or number 1 or number 2 fuel oil, with a design heat input capacity of less than 5 million BTU per hour (BTU/hr). [*Formerly Section 4-8(d)(4)*]

(4) Duplicate permits. Duplicate permits or certificates of operation may be issued by the director if requested by the owner or operator. A fee of thirty dollars ($30.00) shall be charged for issuing a duplicate permit or certificate. *[Formerly 4-8(d)(5)]*

(5) The schedules of fees for certificates of operation for fuel-burning equipment, incinerators, and process equipment are to be based upon rated design input of said equipment. Whenever legally enforceable limitations on operating hours or production rate are included in a certificate of operation for a source, then the schedule of fees imposed on the source is to be based on the legally enforceable limitations. [*Formerly 4-8(d)(6)*]

(6) Any equipment which can be classified as a minor pollution source and which is not subject to section 4-8(e) Installation permit for construction or modification and nonattainment areas, shall be exempted from the requirements of section 4-8(a) and section 4-8(b) but must have a certificate of operation. No person shall operate any such equipment until an application for a certificate of operation, together with plans and specifications of the equipment, has been filed by such person and a certificate of operation has been issued by the director. An annual fee of forty-five dollars ($45.00) shall be assessed for the issuance of a certificate of operation upon such equipment. *[Formerly 4-8(d)(8)]*

(7) Administrative Amendments to a Certificate of Operation or an Installation Permit.

a. An administrative amendment is a revision of a certificate of operation or an installation permit that:

1. Corrects typographical errors;
2. Identifies a change in the legal name, address, or telephone number of any person initially identified in the permit (but not transfer of

ownership to a different party), or provides a similar minor administrative change at the source; or

3. Incorporates into the certificate of operation all applicable provisions of the installation permit.

b. The director shall take no more than sixty (60) days after receipt of a request for an administrative amendment to take final action on such request, and may incorporate such changes without giving public notice or opportunity for public comment. *(New based on concept in 40 CFR 70.7(d))*

[Formerly 4-8(d)(9)]

(e) *Construction or modification permit*.

(1) Except as provided in paragraph (e)(2) of this section, the director shall not grant a permit for the construction or modification of any air contaminant source in any attainment area or unclassified area if such construction or modification will interfere with the maintenance of the air quality standard in an area where the construction or modification has a significant impact on air quality standards or will violate any provisions of this chapter or will violate any provisions of the Tennessee Air Quality Act. If an attainment area is redesignated to nonattainment status, the terms and conditions of the installation permits and certificates of operation issued in accordance with Section 4-8 of the Chattanooga Air Pollution Control Ordinance immediately preceding the effective date of the redesignation shall remain in full force and effect for those sources to which Section 4-8 had applicability prior to the effective date of the redesignation, until such time as revised or additional installation permits or certificates of operation are issued to those sources with revised or additional terms and conditions that are applicable to sources in nonattainment areas.

(2) Nonattainment areas. If a nonattainment area is redesignated to attainment or unclassifiable or nonattainment status is otherwise eliminated, the requirements contained in this Section 4-8(e)(2) shall remain in full force and effect for those sources to which this Section 4-8 had applicability prior to the effective date of the redesignation. The director shall not grant a permit for construction or modification of any air contaminant source in a nonattainment area nor to any source that significantly impacts on a nonattainment area if such construction or modification will interfere with reasonable further progress in attainment of the specific air quality standards or will violate provisions of this chapter except in accordance with the following:

a. All new or modified sources shall utilize good engineering practice, as determined by the director, in designing stacks. The director will consider only stack heights that represent good engineering practice in determining whether emission control measures are sufficient.

b. All new or modified sources of criteria pollutants constructed or modified after the effective date of this provision which are not classified as major sources or major modifications shall utilize best available control technology (BACT) as determined by the director at the time of the permit application.

1. For the purposes of section 4-8(e), "major modification" is defined as follows:

(i) "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase for any pollutant subject to regulations under this chapter.

(ii) Any net emissions increase that is considered significant for volatile organic compounds or nitrogen oxides shall be considered significant for ozone.

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

(A) Routine maintenance, repair, and replacement;

(B) Use of an alternative fuel or raw material by reason of any order under section 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to an applicable federal statute;

(C) Use of an alternative fuel by reason of an order or rule under section 125 of the Federal Clean Air Act;

(D) Use of an alternative fuel at a steam generating unit (burning equipment of 250 million BTUs per hour or larger) to the extent that the fuel is generated from municipal solid waste as determined by the Tennessee Division of Solid Waste Management;

(E) Use of an alternative fuel or raw material by a stationary source which the source was capable of accommodating before January 6, 1975, unless such

change would be prohibited under a legally enforceable permit or certificate condition which was established after January 6, 1975, pursuant to Title 40 CFR Part 52.21 or under regulations approved pursuant to Title 40 CFR Part 51 Subpart I or Subpart 51.166, which have been incorporated by reference in Chapter 4 or the source is approved to use under any permit or certificate issued pursuant to this paragraph;

(F) An increase in the hours of operation or in the production rate, unless such change would be prohibited under a legally enforceable permit or certificate of condition which was established after January 6, 1975, pursuant to Title 40 CFR Part 52.21 or regulations approved pursuant to Title 40 CFR Part 51 Subpart I or Subpart 51.166, which have been incorporated by reference in Chapter 4; or

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

2. For the purposes of section 4-8(e), "net emissions increase" shall have the following meaning:

(i) "Net emissions increase" means the amount by which the sum of the following exceeds zero:

(A) Any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source; and

(B) Any other increases and decreases in actual emissions at the stationary source that are contemporaneous with the particular change and are otherwise creditable.

(ii) An increase or decrease in actual emissions is creditable only if it occurs between:

(A) The date five (5) years before a completed application for the particular change is submitted; and

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

(iii) An increase or decrease in actual emissions is creditable only if the board or director has not relied on it in issuing a permit or

certificate of operation for the source, under regulations approved pursuant to Title 40 CFR Part 51, Subpart I, which has been incorporated by reference in Chapter 4 which is in effect when the increase in actual emissions from the particular change occurs.

(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:

(A) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;

(B) It is legally enforceable at and after the time that actual construction on the particular change begins;

(C) The board or director has not relied on it in issuing any permit or certificate of operation to a new or modified air pollutant source under regulations approved pursuant to Title 40 CFR Part 51, Subpart I, which has been incorporated by reference in Chapter 4 or the board or the director have not relied on it in demonstrating attainment or reasonable further progress; and

(D) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change, considering the nature of the air pollutants to be released into the ambient air from the particular change.

3. For the purposes of section 4-8(e), "significant" means, in reference to a net emissions increase or the potential of a source to emit any of the following air pollutants, a rate of emissions that would equal or exceed any of the following rates:

(i)	Carbon monoxide:	100 tons per year (tpy)
(ii)	Nitrogen Oxides:	40 tpy
(iii)	Sulfur dioxide: 40 tpy	
(iv)	Ozone:	40 tpy of an ozone precursor
(v)	Lead:	0.6 tpy
(vi)	PM_{10}:	15 tpy

4. For the purposes of section 4-8(e), "ozone precursor" means volatile organic compounds and/or nitrogen oxides. A proposed new source or a net emissions increase at an existing source in an ozone nonattainment area can be classified as major based on either VOC or NO_x emissions or both (but not in combination). That is, the determination of major must be made individually for each pollutant, since VOC and NO_x emissions cannot be added to meet the minimum level required for such a demonstration. Notwithstanding the above, NO_x shall not be considered an ozone precursor when:

   (a) Additional NO_x emissions reductions would not be expected to decrease ozone; and
   (b) The EPA Administrator determines for certain classes or categories of sources, when approving a revision of the State Implementation Plan for Tennessee, that net air quality benefits would be greater in the absence of further nitrogen oxides reductions from sources concerned.

[*New: T.A.R. 1200-3-9-.01(5)(b)1.*]

c. A new major source or major modification shall meet the lowest achievable emission rate (LAER) as determined by the director at the time of the permit application.

d. A major source or major modification shall also show that it will not interfere with reasonable further progress in attaining the ambient air quality standards by one (1) of the following methods:

1. Banked credits.

(i) By agreeing to control the nonattainment emissions to a rate lower than the nonattainment emissions specified as reasonably available control technology (RACT), the owner or operator of an air contaminant source has reserved the right to utilize the incremental reduction between RACT and the banked credit agreed rate (BCAR) to provide for future growth in the nonattainment area.

(ii) The banked credit agreed rate is an emission rate more restrictive than RACT which is mutually agreed to by the director and an air contaminant source for the purpose of establishing a banked

credit. This emission level is in no way related to BACT or LAER. Only sources in existence at the time of a nonattainment state implementation plan revision for an area are eligible to establish a banked credit agreed rate.

(iii) The following limitations shall apply to the issuance of a permit for construction or modification for sources using banked credit agreed rate:

(A) All banked credits in a given nonattainment area shall become void upon official reclassification of that area as an attainment area.

(B) An increase in pounds per hour shall be offset by a banked credit of that amount. The banked credit account will be reduced by that amount.

(C) The owner or operator shall demonstrate by air quality modelling that there is a net air quality benefit in the nonattainment area, taking into account emissions credits used to offset them.

(D) A banked credit shall not be used until the banked credit agreed rate level of control is attained by the source involved and demonstrated through a source test or through another method acceptable to the director.

(E) The banked credit agreed rate shall be contained in the state implementation plan as the legally enforceable standard for the air contaminant source. If the source electing to use banked credits must reduce emissions to achieve the banked credit agreed rate level approved a compliance schedule shall be included in the state implementation plan revision.

2. Emission offsets.

(i) For major sources, a larger than one-to-one offset of emissions of the nonattainment pollutant, based on both allowable and

actual emissions, shall be employed. This offset must result in a net improvement in predicted air quality for the pollutant in the area under the influence of emissions from the new or modified major sources and ensure that reasonable further progress shall not be hindered.

(ii) All or any portions of the offsets shall be consummated at the time new source operation commences and demonstrated through a source test or through another method acceptable to the director.

(iii) The reductions shall come from sources in the emission inventory used in the approved control strategy for the nonattainment area state implementation plan revision.

(iv) The amount of the proposed reduction shall be sufficient to offset both the emission increases directly associated with the proposed source construction or modification and those emissions attributed to permitted minor sources that have come into the area since the last reasonable further progress milestone was met.

3. Construction of new major sources or major modifications that have insufficient emission offsets or banked credits to meet the requirements of paragraphs (e)(2)d.1. and (e)(2)d.2. The director may issue a construction permit or proposed new or modified sources provided the sources' emissions will not prevent reasonable further progress in the nonattainment area or will not prevent the ambient air quality standards from being met. Completed applications from sources qualifying for this provision will be processed in the order received by the bureau. (Existing sources will not be required to offset any emissions resulting from permitting of a source for which no emission offsets or banked credits were provided.)

4. Combination of the provisions of paragraphs (e)(2)d.1., (e)(2)d.2. and (e)(2)d.3. of this section.

e. A source is identified as major source for each pollutant as indicated below:

1. A major source for SO_2 is a source with uncontrolled emissions of more than one hundred (100) tons per year and allowable emissions (based on BACT) greater than any of the following:

Fifty (50) tons per year;
One thousand (1,000) pounds per day;
One hundred (100) pounds per hour.

2. A major source for carbon monoxide is a source with uncontrolled emissions of greater than one thousand (1,000) tons per year and allowable emissions (based on BACT) greater than any of the following:
   Fifty (50) tons per year;
   One thousand (1,000) pounds per day;
   One hundred (100) per hour.

3. A major source for particulate matter is any source with uncontrolled emissions of more than one hundred (100) tons per year and allowable emissions of greater than five (5) tons per year, one thousand (1,000) pounds per day, or one hundred (100) pounds per hour (based on BACT).

   Piecemeal construction is cumulative.

   When an air contaminant source's new or modified allowable emissions equal or exceed the above levels, it becomes a major source.

   "Uncontrolled emissions" as used above means the capability at maximum capacity to emit a pollutant in the absence of air pollution control equipment. "Air pollution control equipment" includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal product of the source or to its normal operation. Annual uncontrolled emissions shall be based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the annual hours of operation. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the uncontrolled emission rate of a source.

f. An increase in emissions from a new or modified air contaminant source (all sources at a given plant location) is deemed to significantly impact on air quality within the nonattainment area when it contributes to air quality, in the following amounts or more:

Pollutant	*Annual*	*24-hour*	*3-hour*	*8-hour*	*1-hour*
Sulfur dioxide	1 ug/m^3	5 ug/m^3	25 ug/m^3		
Particulate matter	1 ug/m^3	5 ug/m^3			
Carbon monoxide				0.5 mg/m^3	2 mg/m^3

g. The director shall not issue a permit to any major source in or significantly impacting a nonattainment area unless all other sources owned or operated by the applicant anywhere in the state are in compliance or on an approved compliance schedule.

h. Regardless of the specific emission limitations contained in this rule, all sources identified in section 4-41, Rule 18.2 of this chapter, shall comply with the standards set pursuant to section 4-41, Rule 18.2.

i. For existing fuel-burning equipment, credit shall be based on the allowable emissions under the applicable state implementation plan for the type of fuel being burned at the time the application for an installation permit for the proposed construction or modification 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 of the fuel involved is not acceptable, unless the permit and subsequent permits and certificates of operation are 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. The director, or the board where appropriate, should ensure that adequate long-term supplies of the new fuel are available before granting emissions offset credit for fuel switches.

j. Emissions reductions achieved by shutting down an existing source or permanently curtailing production or operating hours below baseline levels may be credited, provided that the work force to be affected has been notified of the proposed shutdown or curtailment. Source shutdowns and curtailments in production or operating hours occurring prior to the date the new source application is filed generally may not be used for emissions offset credit. However, where an applicant can establish that it shut down or curtailed production after August 7, 1977, or less than one (1) year prior to the date of permit

application, whichever is earlier, and the proposed new source is a replacement for the shutdown or curtailment, credit for such shutdown or curtailment may be applied to offset emissions from the new source.

k. All emission reductions claimed as offset credit shall be legally enforceable.

l. Procedures relating to the permissible location of offsetting emissions shall be followed which are at least as stringent as those set out in 40 CFR Part 51 Appendix S, section IV.D.

m. Credit for an emissions reduction can be claimed to the extent that the bureau, or the board where appropriate, has not relied on it in issuing any permit under regulations approved or has not relied on it in demonstrating attainment or reasonable further progress.

n. Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the plan and any other requirements under local, state or federal law. 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 enforcement 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 this section shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(f) *Building demolition or renovation permit.*

(1) No person shall cause, suffer, allow or permit the renovation of any facility involving the removal or disturbance of friable asbestos-containing material subject to Section 4-41, Rule 17.5, of this chapter, until an application, together with the plans and specifications required by said rule, has been filed by the person or his agent in the office of, and has been approved by, the director and a permit issued for such renovation. For the purposes of this rule, the terms "renovation" and "facility" shall have the same meaning given them in Section 4-41, Rule 17.1, of this chapter.

(2) No person shall cause, suffer, allow or permit the demolition of any facility until an application, together with the plans and specifications required by Section 4-41, Rule 17, of this Chapter, has been filed by the person or his agent in the office of, and has been approved by, the director and a permit issued for such demolition. For the

purposes of this rule, the terms "demolition" and "facility" shall have the same meaning given them in Section 4-41, Rule 17.1, of this chapter.

(3) The plans and specifications, filed pursuant to paragraphs (f)(1) and (2) of this section, shall be submitted on forms approved by the director. Such application shall be filed in accordance with the time requirements set forth in Section 4-41, Rule 17.5, of this chapter. In addition, Rule 17.5 contains the standard for demolition and renovation, including notification requirements applicable to all demolition projects and to certain renovation projects.

(4) Fees. The following fee schedules shall apply to the issuance of permits for all demolitions or for those renovations involving friable asbestos-containing materials (ACM) subject to Rule 17.5, except in paragraphs (f)(6) and (f)(7) of this section. Fees shall be collected by the bureau and remitted to the city treasurer who shall accumulate such fees in an account dedicated to the Board for air pollution control activities. Only one initial fee shall be assessed for any renovation or demolition project occurring at an installation on one contiguous site owned by the same owner within six months after receipt of the initial application where the ACM is calculated (as set forth in Section 4-41, Rule 17.5 of this chapter) in both linear feet and in square feet. When ACM is to be removed and involved calculating in both linear and square feet, the ACM footage will be summed to determine the appropriate fee from Schedule 4-8-F-2 or Schedule 4-8-F-3:

SCHEDULE 4-8-F-I.
DEMOLITIONS WHERE NO ASBESTOS IS PRESENT

Building Square Footage	*Fee*
Up to 20,000.....	$ 50.00
20,001 - 50,000.....	50.00
Over 50,000.....	50.00

SCHEDULE 4-8-F-II.
DEMOLITIONS WHERE ASBESTOS IS PRESENT

For ACM used to fireproof or insulate pipes, or to insulate any duct, boiler, tank, reactor, turbine, furnace, or structural member, including interior and exterior walls, floors, ceilings, and roofs:

Linear/Square feet of ACM	*Fee*
0 - 159 (square feet).....	$ 100.00
0 - 259 (linear feet).....	100.00
160 - 299 (square feet).....	200.00
260 - 299 (linear feet).....	200.00
300 - 499.....	300.00
500 - 999.....	400.00
1,000 - 1,499.....	500.00
1,500 - 4,999.....	625.00
5,000 and up.....	750.00

SCHEDULE 4-8-F-III.
RENOVATIONS WHERE ASBESTOS IS PRESENT

For ACM used to fireproof or insulate pipes, or to insulate any duct, boiler, tank, reactor, turbine, furnace, or structural member, including interior and exterior walls, floors, ceilings, and roofs:

Linear/Square feet of ACM	*Fee*
0 - 159 (square feet).....	$ 50.00
0 - 259 (linear feet).....	50.00
160 - 299 (square feet).....	100.00
260 - 299 (linear feet).....	100.00
300 - 499.....	200.00
500 - 999.....	300.00
1,000 - 1,499.....	500.00
1,500 - 4,999.....	625.00
5,000 and up.....	750.00

(5) Schedule 4-8-F-I shall apply only to a demolition project in which at least twenty-five percent (25%) of one building is razed. If less than twenty-five percent (25%) of one building is being demolished, the notice required by Section 4-41, Rule 17.5 shall be required, but the fee established in Schedule 4-8-F-I shall be waived.

(6) These fee schedules shall not apply to an owner or operator who has previously certified to the bureau that all asbestos-containing materials have been removed from a building, which was confirmed by the bureau at that time, that is the subject of a subsequent notification of a demolition subject to Rule 17.5 if the owner or operator

certifies, at the time of notification to the bureau, that no asbestos-containing materials were added to or placed in the building after the date of original bureau confirmation.
(Code 1986, § 4-8; Ord. No. 9846, § 2, 3-9-93; Ord. No. 10277, §§ 6-8 & 27, 8-15-95; Ord. No. 10786, §§ 19-29, 58 & 62, 10-27-98; Ord. No. 10924, §§ 1-15, 11-2-99; Ord. No. 10968, §§ 1-4, 2-8-00)

Cross reference-Businesses, trades and occupations, Ch. 11.

Sec. 4-9. Charges for technical reports, research, computer time.

Information, circulars, reports of technical work, other reports, research and computer time prepared by, performed, or utilized by the air pollution control bureau, when supplied to other governmental agencies or individuals or groups requesting the same or when performed in conjunction with a permit or certificate application or renewal, may be charged for by the bureau in a sum not to exceed the costs of preparation and distribution of such documents or the cost of research or computer time.
(Code 1986, § 4-9)

Sec. 4-10. Records.

(a) The director shall keep in the office of the bureau all applications required under this chapter, and a complete record thereof, including a record of all permits and certificates issued. The director shall keep a record on all official business of the bureau and complaints and generally of the work done by the bureau. All such records shall be open for inspection by the public at all reasonable times; provided, however, that such records or other information of a confidential nature voluntarily furnished pursuant to section 4-19 shall receive the protection provided by section 419.

(b) The director may, at any time, require the person responsible for a source of emission subject to the provisions of this chapter to record, maintain and keep records relative to the operation of the source and emissions from the source, and may further request from such person such information, analyses or specifications as will disclose the nature, extent, quantity and degree of air contaminants as may be emitted by such source.
(Code 1986, § 4-10; Ord. No. 9171, § 4, 5-30-89)

Sec. 4-11. General requirements.

(a) Any owner, operator or other person responsible for any permanently discontinued or dismantled equipment coming under the jurisdiction of this chapter shall report to the bureau within thirty (30) days the permanent discontinuance or dismantlement of such equipment, and to surrender any outstanding permit or the certificate of operation thereon.

(b) *Separation of emissions.* If air contaminants from a single source are emitted through two (2) or more emission points, the total emitted quantity of any contaminant, limited in this chapter, cannot exceed the quantity which would be the allowable emission through a single emission point, and the total emitted quantity of any such air contaminant shall be taken as the product of the highest concentration measured in any of the emission points and the exhaust gas volume through all emission points, unless the person responsible for the source proves the correct total emitted quantity to be within the limits established by this chapter.

(c) *Combination of contaminants prior to emission.* If air contaminants from two (2) or more sources are combined prior to emission and there are adequate and reliable means reasonably susceptible to confirmation and use by the director for establishing a separation of the components of the combined emission to indicate the nature, extent, quantity and degree of emission arising from each such source, this chapter shall apply to each source separately.

(d) *Inseparable combination of contaminants prior to emission.* If air contaminants from two (2) or more sources are combined prior to emission and combined emissions cannot be separated according to the requirements of subsection (c) of this section, this chapter shall be applied to the combined emission as if it originated in a single source subject to the most stringent limitations and requirements placed by this chapter on any of the sources whose air contaminants are so combined. (Code 1986, § 4-11)

Sec. 4-12. Exceedances of limitations on emissions.

(a) *Purpose.* The purpose of this section is to place reasonable limits on the amount of emissions an air pollutant source can emit due to a "malfunction" as defined in section 4-2, or during start-up or shutdown of said source. Without such limits air quality standards may not be met or public health and welfare may be endangered.
[Formerly 4-12(a); New T.A.R. 1200-3-20-.01]

(b) *Reasonable measures required.* Air pollutant sources must take all reasonable measures to keep emissions to a minimum during start-ups, shutdowns, operation, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Exceedances of limitations on emissions that are caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions, and shall be considered in violation of the emission standard exceeded and this section.
[Formerly 4-12(b); New T.A.R. 1200-3-2-.02]

(c) *Report required to preclude the issuance of a notice of violation.*

(1) When emissions in excess of any applicable provision of this chapter or of any installation permit or certificate of operation issued thereunder occur from any air pollutant source subject to this chapter, a notice of violation shall automatically be issued, unless the source owner or operator in the written report required by section 4-12(e) presents, within the deadlines stated in section 4-12(e), adequate justification for not issuing a notice except for visible emission levels included as a startup or shutdown permit condition under Section 4-41, Rule 3.2.
[Formerly 4-12(g)(1); T.A.R. 1200-3-20-.06]

(2) Failure to submit this report within the seven (7) day period specified in section 4-12(e)(2) shall preclude the admissibility of the report for consideration as an affirmative defense of malfunction for any operation, failure to operate, start-up, or shutdown resulting in emissions in excess of any applicable provision of this chapter or of any installation permit or certificate of operation issued thereunder.
[Formerly 4-12(g)(3); T.A.R. 1200-3-20-.06]

(d) *Effect of a Malfunction*. A malfunction constitutes an affirmative defense to an action brought for noncompliance with any emission limitations if the conditions of section 4-12 are met. The affirmative defense of malfunction shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) A malfunction occurred requiring emergency measures and that the source can identify the probable cause(s) of the malfunction. The probable cause identified by the source must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles;

(2) The source was, at the time of onset, being properly operated. In determining whether or not a source was being properly operated, the director or board may examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code that would be relevant to preventing the noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any affirmative defense of malfunction;

(3) During the period of the malfunction the source took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the installation permit or certificate of operation; and

(4) The source submitted the notices of the malfunction required in section 4-12 to the director by the deadlines set forth in section 4-12(e). [Modeled on 40 CFR 70.6(g)(3)]

(e) *Notice Required When an Emission Limitation is Exceeded.*

(1) When any air pollutant emission source, air pollution control equipment or related emissions unit operates, or fails to operate, in such a manner as to cause the emission of air pollutants in excess of any applicable emission standard contained in this chapter or under any installation permit or certificate of operation issued thereunder, or of sufficient duration to cause damage to property or public health, the owner or operator of such source, air pollution control equipment, or related emissions unit shall promptly notify the director of such excess emissions, specifying that it is a malfunction if that is the case, and provide a statement giving all pertinent facts sufficient for the director to determine whether the exceedance is a malfunction, including the estimated duration of the excess emissions.

(2) Prompt notification shall mean an initial telephone report to the bureau within twenty-four (24) hours after the onset of the excess emissions, followed up by a written report submitted to the bureau within seven (7) days after the onset of the excess emissions. The written report shall include the information described in section 4-12(f)(1)a.1 through a.8. The director shall be notified when the condition causing the excess emissions has been corrected and the source or equipment is again in operation. Any excess emissions that create an imminent hazard requiring immediate action to protect health or safety must be reported by telephone immediately to the bureau and to the appropriate local emergency response agency and to the Tennessee Emergency Management Agency.
[Formerly 4-12(c); T.A.R. 1200-3-20-.06]

(f) *Logs and reports.*

(1) a. A log of any operation or failure to operate, start-up, or shutdown resulting in air pollutant emissions in excess of any applicable standard in this chapter, or of any installation permit or certificate of operation issued thereunder, by any source must be kept at the source. This log must record at least the following:

1. Stack, air pollution control equipment, or emission point involved;
2. Time excess emissions, start-up, or shutdown began or when excess emissions were first discovered by the source;
3. Type of exceedance qualifying as a malfunction, or reason for shutdown;
4. Time start-up or shutdown was complete or time the air pollutant source returned to normal operation after an emissions exceedance;
5. Documentation that the source was or was not, at the time of the onset of the exceedance, being properly operated;
6. Documentation of any preventative maintenance of the air pollution control equipment or process equipment or processes that had been completed prior to the emissions exceedance, start-up, or shutdown;
7. The steps taken by the source during the period of the emissions exceedance, start-up, or shutdown to minimize levels of emissions that exceeded the emission standards, or other requirements in the installation permit or certificate of operation; and
8. The magnitude and identity of the excess emissions, expressed in pounds per hour and the units of the applicable emission limitation, and the operating data and calculations used in determining the magnitude of the excess emissions.
9. The employee of the owner or operator making entry on the log must sign, date and indicate the time of each log entry.

b. The information under items (f)(1)a.1. and 2. of this subsection must be entered into the log by the end of the shift during which the emissions exceedance, start-up or shutdown began.

c. All information shall be entered in the log no later than twenty-four (24) hours after the start-up or shutdown is complete, or the emissions exceedance has ceased or has been corrected.

d. Any later discovered corrections may be added in the log as footnotes with the reason given for the change. There shall be no erasures, obliterations, modifications, or revisions of the log entry except by single line-through and identification of corrections.

(2) The owner or operator of a source located in a nonattainment area or having a significant impact on the air quality in a nonattainment area (for the nonattainment pollutant) in a calendar quarter must submit a report to the director within thirty (30) days after the end of such calendar quarter listing the times and dates at which any

emissions exceedance, start-up, or shutdown resulted in emissions greater than any applicable emission limits under this chapter, or under any installation permit or certificate of operation issued thereunder, and the estimated amount of emissions discharged during such times. This report should also include total emissions during the quarter and be reported in a format specified by the director. If these emissions are required to be reported and are reported as required under section 4-41, Rule 15, then the report required by this paragraph is waived.
[Formerly 4-12(d) and (g)(2); T.A.R. 1200-3-20-.04 and 1200-3-20-.06]

(g) *Copies of log required*. The director may require the owner or operator of any air pollutant source to submit a copy of the emissions exceedance, start up and shutdown log required under subsection (e) of this section to the director ten (10) days after the request is received. The director can require submission of copies of the entire log.
[Formerly 4-12(e); T.A.R. 1200-3-20-.05]

(h) *Special reports required*. The director may require any air pollutant source to submit a report within thirty (30) days after the end of each calendar quarter in a format he specifies containing as a minimum the following information:

(1) The dates on which emissions exceedances, start-ups, and shutdowns resulted in emissions greater than those allowed by the emission standards in this chapter or any installation permit or certificate of operation issued thereunder;

(2) The estimated amount of air pollutants emitted in excess of the emission standards in units of pounds of air pollutant per hour and pounds of air pollutant per day;

(3) Other emission characteristics such as stack exit temperature, stack height and diameter, stack exit velocities, and other similar information;

(4) Information needed to evaluate the possibility of instituting measures to eliminate or reduce the number of emission exceedances or the amount of emissions from emission exceedances, start-ups, and shutdowns;

(5) Information to determine if the excess emissions truly resulted from a malfunction; and

(6) Information to evaluate the impact of the emissions on the surrounding area.
(Code 1986, § 4-12; Ord. No. 9171, § 5, 5-30-89; Ord. No. 10277, § 9, 8-15-95)

Sec. 4-13. Certificate of alternate control.

(a) In lieu of satisfying otherwise applicable standards and requirements of this chapter, an air pollutant source may apply for and be issued a certificate of alternate control. No source with a certificate of alternate control shall emit particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide or volatile organic compounds in excess of the respective limits on such certificate. No source applying for a certificate of alternate control shall be considered as modifying a source under the definition of "modification, alteration, reconstruction" in section 4-2, provided the rated capacity in terms of heat input, charging rate or process weight does not change for any fuel-burning, refuse-burning, incinerator, process or air pollution control equipment, respectively.

(b) The owner or operator of any source that discharges particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide or volatile organic compounds regulated by this chapter can apply to the director for a certificate of alternate control for the source or any portion of the source. The director may grant the request if the following conditions are met:

(1) The source or portion thereof is reducing, or will be after a specific date taking actions to reduce, emissions of particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide or volatile organic compounds to a level at least as stringent as required under other provisions of this chapter, even though affected emissions units at the source may not be meeting the mass emission limitation specified in any other provision of this chapter. Calculations to determine equivalence to standards limiting the pounds of volatile organic compounds per gallon of material shall be on the basis of equivalent solids applied. The total final emission limitation specified in the certificate of alternate control for the source for each given pollutant must be equivalent to or more stringent than would otherwise be applicable under this chapter. These limitations shall include limitations specified in other provisions of this chapter in pounds per hour, or if hourly emissions cannot be determined per the shortest period over which emissions can be determined, and tons per year, for the entire source.

(2) If a schedule for compliance is required, it must be as expeditious as is practicable and be specified as a condition on the certificate of alternate control. In no case shall the final compliance date be beyond a date that would cause interference with the attainment of the reasonable further progress line specified for a specific nonattainment area in the applicable state implementation plan.

(3) The source shall verify through modelling, consistent with Title 40 CFR Part 51, Appendix W--Guideline on Air Quality Models (Revised), which has been incorporated by reference in Chapter 4, that this alternate emission limitation will yield equivalent or improved air quality for the pollutant involved. For volatile organic

compound emissions, modelling for ozone impacts may be required. Air quality need not improve or stay the same at every location affected by the alternate emission standard, but on balance the air quality of the affected area must not be adversely affected. This will be demonstrated by modelling all included emission points at the proposed alternative levels and at the allowable emission level for sources subject to emissions limitations contained in section 4-41, Rule 26 for the pollutant involved. The lower of either the allowable emissions under other rules in this chapter or actual emissions shall be used in all other modelling. In addition, the source shall demonstrate that the use of the alternate emission limitation will not interfere with the attainment or maintenance of any ambient air quality standard nor violate any applicable ambient air increment under section 4-41, Rule 18.

(4) Interpollutant trades are not allowed. Plants subject to the standards in section 4-41, Rule 16 (Emission Standards for Hazardous Air Contaminants), cannot apply the alternate emission limitation to hazardous air contaminants. The sources at a plant subject to emission standards in section 4-41, Rule 15 (New Source Performance Standards), or section 4-8(e)(2)b. and c. cannot use an alternate emission limitation except for reductions in actual emissions below the level required in these sections.

(5) Each emission point identified in the alternate control limitation shall be subject to a specific emission limit expressed in measurable units of the emission limitation. The director shall require an initial compliance test in order to demonstrate that the required emission limitations are being met for each emission point where actual emissions are estimated to exceed ten (10) tons per year or where allowable emissions are in excess of five (5) pounds per hour. Subsequent compliance tests may be required in accordance with the requirements of section 4-8(c).

(6) A fee of one thousand dollars ($1,000.00) for each pollutant emitted at each emission point to be covered by a certificate of alternate control has been paid to the bureau at the time the application is made to cover the cost of review of the request for the certificate of alternate control.

(7) Sources utilizing the alternate emission limitation (1) must be in compliance with all applicable emission limits; or (2) if not in compliance, must be meeting the requirements in an approved compliance schedule; or (3) if not in compliance, must be subject to a court order which includes a compliance schedule and allows for timely modification of the decree without delaying the final compliance date. Under no circumstances can the alternate emission limitation delay or defer a specified compliance date nor shall the certificate of alternate control insulate the source from any penalties or sanctions for

noncompliance or affect the source's liability for failure to comply with any regulation, order or compliance plan.

(c) The alternate emission limitations and certificate conditions must be subjected to a public hearing and submitted to the United States Environmental Protection Agency for approval as a revision to the state implementation plan. The owner or operator requesting this alternate emission control limitation shall be responsible for all costs associated with publishing the required legal notices.

(d) Good engineering practice stack heights shall be utilized on all stack changes associated with the alternate control limitations for particulate matter, sulfur dioxide, carbon monoxide, and nitrogen dioxide.

(e) The owner or operator of the plant must:

(1) Post or file on the operating premises a copy of the certificate of alternate control; and

(2) Keep all pollution control equipment in good operating condition and utilize such equipment at all times.

(f) The certificate of alternate control shall be revoked after a hearing by the board if it is found that any of the requirements of subsection (b) of this section have been violated or if any of the requirements of subsection (e) have been frequently and flagrantly violated after the certificate was issued or if violation of the requirements of subsection (d) or conditions placed on their certificate under subsection (i) are not corrected promptly on written notice.

(g) The certificate of alternate control does not relieve the owner or operator of the duty of meeting all emission requirements in other rules for new sources whose installation, modification, alteration or reconstruction is commenced after the effective date of the rule.

(h) Upon revocation of the certificate of alternate control, the sources at the plant must comply with other provisions in this chapter that would have been applicable had the certificate not been issued. The board may specify a time period for the source to come into compliance with the more restrictive emission limitations.

(i) The director shall specify the new emission limits for each emission point as conditions of the certificate of alternate control. If methods other than reference test methods are to be used to determine compliance, they should be specified on the certificate. Other conditions needed to insure and to verify compliance may be placed on the certificate as conditions.

(j) Notice is hereby given that any certificate granted pursuant to this section shall become void should the board find it proper to amend the regulations covering any source listed on the certificate if the effect of the amendment is to reduce the allowable emissions of the source. The certificate in this instance shall be deemed void ninety (90) days after the source's receipt of notice from the director of the effective date of the revised regulations.
[*New: See T.A.R. 1200-3-21*]
(Code 1986, § 4-13; Ord. No. 10277, § 10, 8-15-95)

Sec. 4-14. Court determination of invalidity of having two sets of limitations for process or fuel-burning equipment; effect.

If a court of competent jurisdiction should ever rule that having two (2) sets of limitations for process or fuel-burning equipment is invalid, then the most stringent emission limitation for process or fuel-burning equipment shall be the limitation of all such equipment.
(Code 1986, § 4-14)

Sec. 4-15. Right to file abatement suits.

Nothing in this chapter shall be construed to impair the right of the board of commissioners or the city attorney to file appropriate suits to abate a nuisance involving air pollution or to prosecute anyone for creating a nuisance or allowing a nuisance to continue or permitting a nuisance to exist. The board, with the approval of the city attorney, may in the name of the city institute action to abate a nuisance.
(Code 1986, § 4-15)

Sec. 4-16. Right of entry of employees of the bureau, search warrants.

(a) In the performance of their duties, the director and other employees of the bureau are hereby authorized to enter upon and into premises or buildings with permission of the owner or occupant thereof to make inspection of the premises or building, to collect and preserve evidence of all facts of violation of this chapter or to perform any duty imposed upon them by this chapter. For the purposes of the preceding sentence, "reasonable times" shall be considered to be during normal business hours, unless reasonable cause exists to suspect noncompliance with this chapter or with any installation permit, certificate of operation, issued by the Bureau, and the director specifically authorizes a bureau employee to inspect a source at any other time.

(b) Alternatively, the director or other employees of the bureau or any other law enforcement officer may obtain a search warrant from the city court of the municipality if the premises lie

within a municipality which has a city court, or from the state court of the county, as other search warrants are issued upon a showing of probable cause to believe that the provisions of this chapter or the rules and regulations thereof have been or are being violated, and may thereafter enter upon or into the premises or buildings and obtain, collect and preserve evidence or perform any duty imposed upon them by this chapter.
(Code 1986, § 4-16; Ord. No. 10277, § 11, 8-15-95)

Sec. 4-17. Enforcement of chapter; procedure for adjudicatory hearings for violations.

(a) Whenever the board or director has reason to believe that a violation of any provision of this chapter or rule or regulation pursuant thereto has occurred, the board or director may cause written notice to be served upon the alleged violator or violators. The notice shall specify the provision of this chapter or rule or regulation alleged to be violated and the date, time, place and general nature of the alleged violation or violations thereof and may include an order that necessary action be taken within a reasonable time. The notice provided for in this subsection may be served by the sheriff or a deputy sheriff of the county; or by a police officer of this city; or by a special police officer of this city; or by a special deputy sheriff; or may be served in any other manner prescribed for the service of a writ of summons by the statutes of the state or by the Tennessee Rules of Civil Procedure. Any such order shall become final unless, no later than thirty (30) days after the date the notice and order are served, the person or persons named therein request in writing a hearing before the board and file a notice of appeal and a bond pursuant to section 4-18(e). Upon such request, the board shall hold a hearing. In lieu of an order, the board may require that the alleged violator or violators appear before the board for a hearing at a time and place specified in the notice and answer the charges complained of, or the board may initiate action pursuant to section 4-15 or section 4-4 of this chapter, or the board may initiate action pursuant to any applicable provisions of the statutes of the state, or the acts of Congress of the United States, or the board may initiate action pursuant to any provisions or doctrines of the law of this state.

(b) If, after a hearing held pursuant to subsection (a) of this section, the board finds that a violation or violations have occurred, it shall affirm or modify the order previously issued, or issue an appropriate order or orders for the prevention, abatement, or control of the emissions involved or for the taking of such other corrective action as may be appropriate and the board may assess a civil penalty or enter any other appropriate order. If, after a hearing on an order contained in a notice, the board finds that no violation has occurred, it shall rescind the director's order. Any order issued as part of a notice or after a hearing may prescribe the date or dates by which the violation or violations shall cease and may prescribe timetables for necessary actions in preventing, abating or controlling the emissions. Any action taken by the board under this chapter shall be in writing and signed by the chairman, vice-chairman or chairman pro tempore of the board.

(c) Nothing in this chapter shall prevent the board or director from making efforts to obtain voluntary compliance through warning, conference or any other appropriate means. Nothing in this chapter, or in this section of this chapter, shall be construed as requiring the board to hold a hearing pursuant to this section of this chapter prior to or as prerequisite to its institution of action in court pursuant to this or any other section of this chapter or pursuant to the statutes of the state, the acts of the Congress of the United States, or any applicable doctrine of the law of this state; and nothing in this chapter or this section of this chapter shall prevent the board or director from suspending or revoking an installation permit or a certificate of operation or any other permit or license issued pursuant to the provisions of this chapter, but notice shall be served pursuant to this section of this chapter prior to revocation of a valid and outstanding certificate of operation.
(Code 1986, § 4-17; Ord. No. 10277, § 12, 8-15-95)

Sec. 4-18. Hearings, appeals and judicial review.

(a) At any public hearing, all testimony taken before the board shall be under oath and recorded stenographically, but the record shall not be transcribed unless any party seeks judicial review by writ of certiorari pursuant to T.C.A. 27-9-101 *et. seq.* from any order or determination of the board, and in such event the party seeking such judicial review shall pay for the transcription and reimburse the board its stenographic expense incident to the hearing and shall furnish the original transcript to the board.

(b) The chairman, vice-chairman or chairman pro tempore of the board or the director may issue notice for the hearing and may issue subpoenas requiring attendance and testimony of witnesses or the production of evidence relevant to any matter involved in such hearing, or both. Such subpoena shall be served in the same manner as is provided for service of notice in section 4-17. The director shall issue subpoenas requested by a person upon whom notice has been served to appear for a hearing or who otherwise has a real and substantial interest in the hearing. The chairman, the vice-chairman, the chairman pro tempore or the director is authorized to administer oaths and to examine witnesses. Witnesses may likewise be examined by any member of the board, the attorney representing this municipality, the attorney representing the board, the attorney presenting proof from the bureau, the interested party or their attorney, or any other person determined by the board to have a real and substantial interest in the hearing or his attorney. In case of a refusal to obey a subpoena under this chapter, upon approval of a majority of the members of the board conducting the hearing, application may be made to the municipal court of this municipality or to any state court for such necessary subpoenas, orders or other proceedings to compel the attendance and testimony of such witness or witnesses and to compel the production of such evidence. Upon application to the municipal court of this municipality, the court shall issue such order. Upon application to a state court of record the court may issue such order, and failure to appear before the board or to produce evidence will be deemed to be contempt of the court from which such order has issued. Failure to obey the order shall be

punishable as provided by ordinances, state statutes or the common law for failure to obey a subpoena issued for appearance of a witness before such court.

(c) All hearings shall be held before not less than a majority of the board.

(d) Nothing in this section shall be construed to require a hearing prior to the issuance of an emergency order pursuant to section 4-20 of this chapter or prior to the institution by the board of action in court pursuant to any other section or provision of this chapter or the statutes of the state, the acts of the Congress of the United States, or any applicable doctrine of the law of this state.

(e) Any person aggrieved by any order or determination of the director may appeal such order or determination to the board for a public hearing before the board pursuant to the provisions of this section. Notice of appeal and a bond in the amount of five hundred dollars ($500.00) to secure costs of the hearing shall be filed in the bureau within thirty (30) days after the date of the order or determination from which appeal is sought, otherwise the director's order or determination becomes final and nonappealable. Failure to file such appeal within the time provided herein regarding any terms, limitations, or special conditions in any permit or certificate of operation issued under this chapter, including but not limited to determinations of best available control technology, particulate matter best available control technology, and lowest achievable emissions rate, consummates the final determination of those terms, limitations and special conditions and constitutes a conclusive presumption that they are valid and enforceable under this ordinance and that a violation of the same constitutes a violation of the ordinance. The filing of the notice of appeal and bond herein provided for within the time herein prescribed shall perfect the appeal to the board.

Upon receipt of the notice of appeal and bond, the director shall immediately notify the chairman, vice-chairman or chairman pro tempore of the board of the appeal. The hearing on appeal to the board may be had at a special meeting of the board called by the chairman, vice-chairman or chairman pro tempore or at a regular meeting. The perfecting of the appeal as herein provided shall suspend only the operation of that portion of the order or determination appealed from and only until such time as the board has acted upon the appeal; provided, however, that the continuation of a special condition carried over from the immediately preceding certificate of operation and reimposed on the renewal certificate of operation shall not be suspended pending final action on the appeal. Any person aggrieved by any final order or determination of the board hereunder shall have judicial review thereof exclusively by writ of certiorari pursuant to T.C.A. 27-9-101 *et. seq*. No judicial review shall be available to any person so aggrieved until and after all administrative remedies have been exhausted. (Code 1986, § 4-18; Ord. No. 10277, § 13, 8-15-95)

Sec. 4-19. Confidentiality of certain records.

(a) Upon the filing with the director of a written request for confidentiality by an owner or operator for any formulae, processes or methods used in any manufacturing operation at an air pollutant source carried on by such owner or operator that is certified by the owner or operator as secret, the board shall conduct a review for confidentiality. No owner or operator shall be required to disclose any secret formulae, processes or methods used in any manufacturing operation carried on by such owner or operator or under the direction of such owner or operator. The board shall have the power to issue protection orders to prevent public dissemination. If the board determines that the information should not be protected as confidential, the director shall so notify the source in writing.

(b) Upon the filing with the director of a written request for confidentiality by an owner or operator for any records or other information of a confidential nature voluntarily furnished to the board or director by the owner or operator, such voluntarily submitted records or information is subject to a review for confidentiality. Records or other information concerning one (1) or more air pollutant sources, which are certified by the owner or operator as related to confidential production techniques, production rates, or trade secrets or sales figures or to processes or productions sufficiently unique to the owner or operator or which would affect adversely the competitive position of such owner or operator if made available to the general public, are eligible for confidential status. If the board determines that the information should not be protected as confidential, the director shall so notify the source in writing. If the board determines that the information should be protected as confidential, then the information shall be reserved only for the confidential use of the board and bureau in the administration of this chapter or the Administrator of the United States Environmental Protection Agency in the administration of the Federal Clean Air Act, unless such owner or operator shall expressly agree to their publication or availability to the general public; provided, however that no such records or information shall be considered as of a confidential nature unless accepted in writing by the board as confidential. Nothing herein shall be construed to prevent the use of such records or information by the board in compiling or publishing analysis or summaries relating to the general conditions of the outdoor atmosphere provided that such analyses or summaries do not identify the owner or operator or reveal any information considered confidential under this section.

(c) Notwithstanding the foregoing, the following information shall not be considered confidential:

(1) The composition of air pollutants and emission data;

(2) The applicable provisions under this chapter that a source must fulfill and the source's compliance status with respect to each provision; and

(3) The business name, address, location of the source, and the name of the source's owner or operator.

(Code 1986, § 4-19; Ord. No. 10277, § 14, 8-15-95)
State law reference--T.C.A. § 68-201-105(b)(2).

Sec. 4-20. Emergencies.

(a) It is the purpose of this section to establish criteria so as to prevent air pollutants from reaching levels that would cause imminent and substantial endangerment to the health of persons, especially during adverse meteorological conditions. Any other provisions of law to the contrary notwithstanding, if the Director or the administrator of the Chattanooga-Hamilton County Health Department finds that a condition of air pollution exists or is likely to exist, and that it creates any emergency requiring immediate action to protect human health or safety, the mayor with the concurrence of the Director or the administrator of the Chattanooga-Hamilton County Health Department shall order persons causing or contributing to the air pollution to reduce or discontinue immediately the emission of air pollutants. Upon issuance of any such order, the Director shall fix a place and time, not later than twenty-four (24) hours thereafter, for a hearing to be held before the board. Not more than twenty-four (24) hours after commencement of such hearing, and without adjournment thereat the board shall affirm, modify, or recommend to the mayor that the order be affirmed, modified or set aside.

(b) Episode Criteria. Conditions justifying the order of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist when the Director or the administrator of the Chattanooga-Hamilton County Health Department determines, in concurrence with the mayor, that the accumulation of air pollutants is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. In making this determination, the Director or administrator will be guided by the criteria described below.

(1) *Air Pollution Forecast*: An internal watch by the Chattanooga-Hamilton County Air Pollution Control Bureau shall be activated by a National Weather Service advisory that an atmospheric stagnation advisory is in effect or the equivalent local forecast of stagnant atmospheric conditions.

(2) *Air Pollution Alert*: The alert level is that concentration of air pollutants at which emissions reductions must begin. An alert will be declared when any of the following levels is reached at any monitoring site, and when meteorological conditions are such that air pollutant concentrations can be expected to remain at these levels or to increase for twelve (12) or more hours, or in the case of ozone this level is likely to recur within the next twenty-four (24) hours unless control actions are taken:

a.....SO_2: .....800 $\mu g/m^3$ (0.3 parts per million), 24-hour average

b.....PM_{10}:.....350 $\mu g/m^3$, 24-hour average

c.....(Reserved)

d.....CO:.....17 mg/m^3 (15 ppm), 8-hour average

e.....Ozone (0_3):.....400 $\mu g/m^3$ (0.2 ppm), 1-hour average

f.....NO_2:.....1130 $\mu g/m^3$ (0.6 ppm), 1-hour average;
....282 $\mu g/m^3$ (0.15 ppm), 24-hour average.

(3) *Air Pollution Warning*: The warning level indicates that air quality is continuing to degrade and that additional control actions are necessary. A warning will be declared when any one of the following levels is reached at any monitoring site, and when meteorological conditions are such that air pollutant concentrations can be expected to remain at these levels or to increase for twelve (12) or more hours, or in the case of ozone this level is likely to recur within the next twenty-four (24) hours unless control actions are taken:

a.....SO_2:.....1600 $\mu g/m^3$ (0.6 ppm), 24-hour average

b.....PM_{10}:..... 420 $\mu g/m^3$, 24-hour average

c.....(Reserved)

d.....CO:.....34 mg/m^3 (30 ppm), 8-hour average

e.....Ozone (O_3):.....800 $\mu g/m^3$ (0.4 ppm), 1-hour average

f.....NO_2:.....2260 $\mu g/m^3$ (1.2 ppm), 1-hour average;
.....565 $\mu g/m^3$ (0.3 ppm), 24-hour average.

(4) *Air Pollution Emergency*: The emergency level indicates that air quality is continuing to degrade toward a level that would cause an unreasonable risk to public health and that the most stringent control actions are necessary. An emergency will be declared when any one of the following levels is reached at any monitoring site, and when meteorological conditions are such that air pollutant concentrations can be expected to remain at these levels or to increase for twelve (12) or more hours, or in the case of

ozone this level is likely to recur within the next twenty-four (24) hours unless control actions are taken:

a.....SO_2:.....2100 $\mu g/m^3$ (0.8 ppm), 24-hour average

b.....PM_{10}:.....500 $\mu g/m^3$, 24-hour average

c.....(Reserved)

d.....CO:.....46 mg/m^3 (40 ppm), 8-hour average

e.....Ozone(O_3):.....1000 $\mu g/m^3$ (0.5 ppm), 1-hour average

f.....NO_2:.....3000 $\mu g/m^3$ (1.6 ppm), 1-hour average;
.....750 $\mu g/m^3$ (0.4 ppm), 24-hour average.

(5) *Termination*. Once declared, any status reached by application of these criteria will remain in effect until the criteria for that level are no longer met. At that time, the next higher or the next lower status will become effective upon declaration of the concurrence of the mayor and the Director or the administrator of the Chattanooga-Hamilton County Health Department.

(c) Required Emissions Reductions.

(1) When an air pollution alert, an air pollution warning, or an air pollution emergency has been declared, all sources must follow the requirements for that episode level as outlined in Tables 1, 2, or 3 or in the air pollution episode emissions reduction plan approved in accordance with Section 4-20. Title 40 CFR Part 51, Subpart H--Prevention of Air Pollution Emergency Episodes, requires episode plans for Priority I, IA, and II areas. Priority III areas are not required to develop episode plans. If a plan has been approved by the Director, emissions must be reduced to that level or lower during a declared episode.

(2) Preplanned Abatement Strategies. Major sources in or significantly impacting a nonattainment area must submit to the Director an acceptable air pollution episode emissions reduction plan to be followed during the alert, warning and emergency levels of an air pollution episode. The term "major source" as used in Section 4-20 means any of the following types of stationary sources of air pollutants which emit, or have the potential to emit, one hundred (100) tons per year or more of any air pollutant: fossil

fuel fired steam electric plants of more than two hundred fifty million British thermal units per hour heat input; coal cleaning plants (thermal dryers); draft pulp mills; Portland Cement plants; primary zinc smelters; iron and steel mill plants; primary copper smelters; municipal incinerators capable of charging more than two hundred and fifty tons of refuse per day; hydrofluoric, sulfuric, and nitric acid plants; petroleum refineries; lime plants; coke oven batteries; sulfur plants; phosphate rock processing plants; sulfur recovery plants; carbon black plants (furniture process); primary lead smelters; fuel conversion plants; sintering plants; secondary metal production facilities; chemical process plants; fossil-fuel boilers of more than two hundred and fifty million British thermal units per hour heat input; petroleum storage and transfer facilities with a capacity exceeding three hundred thousand barrels; taconite ore processing facilities; glass fiber processing plants; and charcoal production facilities. The term "major source" also includes, for the purposes of Section 4-20, any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant. Only the pollutants for which the air quality planning area is designated nonattainment are considered in determining whether a source is a major source, for the purposes of Section 4-20.

(3) Any source subject to the preceding paragraph (2) must submit a revised air pollution episode emissions reduction plan at the request of the Director should the nature and quantity of the source's emissions change or the original plan be deemed inadequate.

(4) The owner or operator of any other air pollutant source, having a potential to emit less than one hundred tons per year of any air pollutant, may file an air pollution episode emissions reduction plan for use during an air pollution episode if the owner or operator anticipates achievement of comparable or greater reduction of the health hazard in the area at a much lower cost than can be achieved by a major source.

(5) Where specific actions may be necessary to relieve a health hazard by sources emitting air pollutants at lower levels than that indicated in paragraph (2) above, the Director may require the submittal of an acceptable air pollution episode emissions reduction plan from the owners or operators of those sources. The owner or operator must submit such plan within thirty (30) days after the Director so requires.

(6) If the owner or operator of any source required to have an approved air pollution episode emissions reduction plan on file with the Director fails to submit an approvable plan to the Director, the Director may schedule a hearing to set an approved air pollution episode emissions reduction plan for that air pollutant source.

TABLE 1
EMISSION REDUCTION PLANS
ALERT LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. The Chattanooga-Hamilton County Air Pollution Control Board encourages persons operating motor vehicles to eliminate all unnecessary operation.

Part B. SOURCE CURTAILMENT

Any owner or operator of a source of air pollutants listed below shall take all required control actions specified below for this Alert Level and the preplanned abatement strategies submitted to and approved by the Director for that source.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power reduction by generating facilities	a. Substantial utilization of fuels having low ash and sulfur content. b. Maximum utilization of mid-day (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Substantial reduction by diverting electric power generation to facilities outside of Alert Area.
2. Coal and oil-fired	a. Substantial reduction by utilization of fuels

	process steam generating facilities	having low ash and sulfur content. b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Substantial reduction of steam load demands consistent with continuing plant operations.
3.	Manufacturing industries of the following classifications: Primary Metals Industry Petroleum Refining Operations Chemical Industries Paper and Allied Products Grain Industry	a. Substantial reduction of air contaminants from manufacturing operations by curtailing, postponing, or deferring production and all operations. b. Maximum reduction by deferring trade (industry) waste disposal operations which emit solid gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing. d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

TABLE 2
EMISSION REDUCTION PLANS
WARNING LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste or liquid waste shall be prohibited.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. The Chattanooga-Hamilton County Air Pollution Control Board encourages persons operating motor vehicles to reduce operations by the use of car pools and increase use of public transportation and the elimination of unnecessary operation.

Part B. SOURCE CURTAILMENT

Any owner or operator of a source of air pollutants listed below shall take all required control actions specified below for this Warning Level and the preplanned abatement strategies submitted to and approved by the Director for that source.

Source of Air Pollution	Control Level
1. Coal or oil-fired electric power generating facilities	a. Maximum reduction by utilization of fuels having lowest ash and sulfur content. b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Maximum reduction by diverting electric power generation to facilities outside of Warning Area.
2. Coal and oil-fired process steam generating facilities	a. Maximum reduction by utilization of fuels having the lowest ash and sulfur content. b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Making ready for use a plan of action to be taken if an emergency develops.

3.	Manufacturing industries which require considerable lead time for shut-down including the following classifications: Petroleum Refining Chemical Industries Primary Metal Industries Glass Industry Paper and Allied Products	a. Maximum reduction of air contaminants from manufacturing operations if necessary, assuming reasonable economic hardship by postponing production and allied operation. b. Maximum reduction by deferring trade (industry) waste disposal operations which emit solid particles, gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing. d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
4.	Manufacturing industries which require relatively short lead time for shut-down including the following classifications: Primary Metal Industries Chemical Industries Mineral Processing	a. Elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment. b. Elimination of air contaminants from trade (industry) waste disposal processes which emit solid particulates, gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing.

Industries	d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
Grain Industry	

TABLE 3
EMISSION REDUCTION PLANS
EMERGENCY LEVELS

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.

2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.

3. All places of employment described below shall immediately cease operations:

   a. Mining and quarrying of non-metallic minerals

   b. All construction work except that which must proceed to avoid emergent physical harm.

   c. All air contaminant sources except those required to have in force an air pollution emergency plan.

4. Any commercial or manufacturing establishments not included in these Tables shall institute such actions as will result in maximum reduction of air pollutants from their operations by ceasing, curtailing, or postponing operations which emit air pollutants to the extent possible without causing injury to person or damage to equipment.

5. The Chattanooga-Hamilton County Air Pollution Control Board encourages the users of motor vehicles to cease usage except in emergencies.

Part B. SOURCE CURTAILMENT

Any owner or operator of a source of air pollutants listed below shall take all required control actions specified below for this Emergency Level and the preplanned abatement strategies submitted to and approved by the Director for that source.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power	a. Maximum reduction by utilization of fuels having lowest sulfur and ash content.

	generating facilities	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing. c. Maximum reduction by diverting electric power generation to facilities outside of Emergency Area.
2.	Coal and oil-fired process steam generating facilities	a. Maximum reduction, by reducing heat and steam demands to absolute necessities, consistent with preventing equipment damage. b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Taking the action called for in the emergency plan.
3.	Manufacturing industries of the following classifications: Primary Metals Industries Petroleum Refining Chemical Industries	a. Elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment b. Elimination of air contaminants from trade (industry) waste disposal processes which emit solid particles, gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing.

Grain Industry		
	d.	Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.
Paper and Allied Products		

(Code 1986, § 4-20; Ord. No. 10786, § 30, 10-27-98)

Sec. 4-21. Variances.

(a) Any person who owns or is in control of any plant, building, structure, process or equipment may apply to the board for a variance from rules or regulations. Each applicant to the board for variance shall pay a fee of one hundred dollars ($100.00) to cover the cost of handling such application, no part of which fee is returnable. The board may grant such variance if it finds that:

(1) The emissions occurring or proposed to occur do not endanger or are not likely to endanger human health or safety; and

(2) Compliance with the rules or regulations from which variance is sought would produce serious hardship without equal or greater benefits to the public.

(b) No variance or renewal thereof shall be granted pursuant to this section except after public hearing on due notice by publication in a newspaper of general circulation and until the board has considered the relative interests of the applicant, other owners of property likely to be affected by the discharges, and the general public.

(c) Any variance or renewal thereof may be granted within the requirements of subsection (a) and for the time periods and under conditions consistent with the reasons therefor and with the following limitations:

(1) If the variance is granted on the grounds that there is not practicable means known or available for the adequate prevention, abatement or control of the air pollution involved, it shall be only until the necessary means for prevention, abatement or control becomes known and available and subject to the taking of any substitute or alternate measures that the board may prescribe;

(2) If the variance is granted on the grounds that compliance with the particular requirement or requirements from which variance is sought will necessitate the taking of measures which, because of their extent or cost, must be spread over a considerable period of

time, it shall be for a period not to exceed such reasonable time as in the view of the board is requisite for the taking of the necessary measures. A variance granted on the grounds specified herein shall contain a timetable for the taking of action in an expeditious manner and shall be conditioned on adherence to such timetable;

(3) If the variance is granted on the ground that it is justified to relieve or prevent hardship of any kind other than provided for in items (1) and (2) of this subsection, it shall be for not more than one (1) year.

(d) Any variance granted pursuant to this section may be renewed on terms and conditions and for periods which would be appropriate on initial granting of a variance. If complaint is made to the board on account of the variance, no renewal thereof shall be granted unless, following public hearing on the compliant notice, the board finds that renewal is justified. No renewal shall be granted except on application therefor. Any such application shall be made at least thirty (30) days prior to the expiration of the variance. Immediately upon receipt of an application for renewal, the bureau shall provide for public notice in a newspaper of general circulation at the expense of the applicant prior to the public hearing upon such application.

(e) A variance or renewal shall not be a right of the applicant or holder thereof but shall be in the discretion of the board. However, any person adversely affected by a variance or renewal granted by the board may obtain judicial review thereof by a proceeding in the chancery court. Judicial review of the denial of variance may be had only on common law writ of certiorari on the grounds that the denial is arbitrary or capricious.

(f) Nothing in this section and no variance or renewal granted pursuant hereto shall be construed to prevent or limit the application of the emergency provisions and procedures of section 4-20 of this chapter to any person or his property.

(g) Any hearing held under the provisions of this section shall conform with the relevant requirements set out in section 4-18 of this chapter.
(Code 1986, § 4-21)

Secs. 4-22 -- 4-40. Reserved.

ARTICLE II. RULES, REGULATIONS, CRITERIA, STANDARDS

Sec. 4-41. Rules adopted.

The following rules, regulations, criteria and standards for air pollution control are hereby adopted:

Rule 1. Title.

These regulations shall be known and referred to as the "Chattanooga-Hamilton County Air Pollution Control Regulations."

Rule 2. Regulations of Nitrogen Oxides.

Rule 2.1. No person shall cause, suffer, allow or permit the emission of nitrogen oxides, expressed as nitrogen dioxide, from fuel-burning equipment which has design capacity of or in excess of two hundred fifty million (250,000,000) Btu's per hour, built or installed on and after January 1, 1973, in excess of the following:

(1) One hundred sixty-five (165) ppm corrected to fifteen (15) percent excess air when gaseous fossil fuel is fired (equivalent to 0.20 pounds of nitrogen oxides, expressed as nitrogen dioxide, per million Btu heat input);

(2) Two hundred twenty-seven (227) ppm corrected to fifteen (15) percent excess air when liquid fossil fuel is fired (equivalent to 0.30 pounds of nitrogen oxides, expressed as nitrogen dioxide, per million Btu heat input);

(3) Five hundred twenty-five (525) ppm corrected to fifteen (15) percent excess air when solid fossil fuel is fired (equivalent to 0.70 pounds of nitrogen oxides, expressed as nitrogen dioxide, per million Btu heat input).

When different fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration (i.e., the allowable emission, expressed as nitrogen dioxide, shall be equal to the value obtained from the equation:

$$A = S \times (525) + L \times (227) + G \times (165)$$

Where:

S	=	fraction of total heat input derived from solid fossil fuel.
L	=	fraction of total heat input derived from liquid fossil fuel.
G	=	fraction of total heat input derived from gaseous fossil fuel.
A	=	the emission limit in ppm.

Rule 2.2. (Reserved).

Rule 2.3. No person shall cause, suffer, allow or permit the emission of nitrogen oxides from any nitric acid plant built or installed on and after January 1, 1973, in excess of three (3) pounds (calculated as nitrogen dioxide) per ton of acid produced.

Rule 2.4. No person shall cause, suffer, allow or permit the emission of nitrogen oxides in excess of three hundred (300) ppm from any source except fuel-burning equipment, which is regulated by Rule 2.1; nitric acid plants, which are regulated by Rule 2.2 and Rule 2.3; portland cement plants, which are regulated by Rule 2.6; and emergency generators, which are regulated by Rule 2.7.

Rule 2.5. All sampling of emissions from any source of nitrogen oxides and all analyses of samples to determine the amount of nitrogen oxides in such samples shall be conducted as specified by techniques promulgated by the board.

Rule 2.6. No portland cement plant shall cause, suffer, allow or permit the emission of nitrogen oxides in excess of one thousand five hundred (1500) ppm produced when averaged over any three consecutive hour period.

Rule 2.7. For the purposes of this rule, "emergency generator" is defined as a generator used when loss of primary electrical power occurs for reasons beyond the control of the source. In no event shall an emergency generator emitting in excess of one thousand five hundred (1500) parts per million be operated for a period of time longer than five (5) consecutive days or more than a total of twenty (20) days in any calendar year, unless a source demonstrates to the director with clear and convincing evidence that reasonably unforeseeable events beyond the control of the source require use of the emergency generator for an additional period of time. The source shall maintain a written record of each loss of primary electrical power, including a record of the cause and a record of the duration of the loss. Such written record shall be retained for a period of not less than two (2) years and shall be available to the director upon request. Periodic start-up of an emergency generator to test proper functioning shall not be subject to these recordkeeping requirements.

Rule 3. Visible Emission Regulations.

Rule 3.1. No person shall cause, suffer, allow or permit visible emissions from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period; provided, however, that the time limitations as set forth in Rule 7.1 apply to incinerators, but all other provisions of Rule 3 shall apply to incinerators.

Rule 3.2. Consistent with requirements of section 4-12 of this Code, due allowance may be made for visible emissions in excess of that permitted in this rule which are necessary or unavoidable

due to routine start-up and shutdown conditions provided the owner or operator shall maintain a continuous, current log of all start-up and shutdown conditions showing a time at which such conditions began and ended and that such record shall be available to the director or his representative upon request.

Rule 3.3. It is expressly intended that in testing compliance with Rule 3.1 that visible emissions will be evaluated in terms of equivalent opacity and expressed as percent opacity.

Rule 3.4. Visible emissions from fuel-burning equipment used exclusively to provide space heating in a building not containing more than two (2) dwelling units shall not be subject to the provisions of this Rule 3.

Rule 3.5. Regardless of the visible emission limitation contained in this Rule 3, all sources identified in Rule 15, Rule 16, Rule 18, Rule 26, and Rule 27 in this section and in section 4-8(e) (Construction and modification permit, nonattainment areas) of this chapter shall comply with the visible emission limitations set pursuant to those rules or that section.

Rule 3.6. Visible emissions from nonstack emission points at coke plants shall not be subject to the provisions of this Rule 3, but shall be subject to the opacity limitations of Rule 26.4.

Rule 4. *Regulation of the Importation, Sale, Transportation, Use or Consumption of Certain Fuels.*

Rule 4.1. It shall be unlawful for any persons to import, sell, offer for sale, expose for sale, exchange, deliver or transport for use and consumption in the city, or to use or consume in the city, any fuel containing in excess of four (4) percent sulfur content by weight for fuel-burning equipment regulated under Rule 8 and Table 1. Fuels with sulfur contents greater than allowed in this rule may be burned, used and consumed, and may be delivered by any person to any user, provided such user utilizes methods or processes or a combination of methods or processes approved in writing by the director which will limit the emission of sulfur dioxide from the source to a quantity or rate not greater than that which would result from the use of a low sulfur fuel as specified in the first part of this rule. Any person who desires to sell, offer for sale, expose for sale, exchange, deliver or transport for use and consumption any fuel with sulfur content greater than allowed as hereinabove set forth upon the basis that the user utilizes methods or processes approved in writing by the director as hereinabove set forth must have in his possession at the time of sale, offer for sale, exposure for sale, exchange, delivery or transport an exact reproduced copy of the approval by the director as hereinabove provided for, which approval must at that time be valid, effective and unrevoked. Sale, offer for sale, exposure for sale, exchange, delivery or transport for use and consumption in the absence of such copy of such valid, effective and unrevoked written approval shall be prima facie a violation of this rule and the burden shall

be upon the person charged to establish that written and effective approval had been extended by the director as hereinabove provided.

Rule 4.2. To determine compliance with Rule 4.1 above, the board is authorized under this chapter to make, or obtain tests of fuel when it deems necessary to determine compliance.

(1) An adequate supply of the fuel, ready for use, must be made available to the director to conduct whatever tests in accordance with A.S.M.E., P.T.C. 3.2-1954 he deems necessary.

(2) Any person whose fuel is submitted to such tests must pay all expenses necessary to conduct the tests when found to be in violation.

(3) Tests certified by a competent person approved by the director may be accepted by the director as the tests required by this rule.

Rule 4.3. The provisions of Rule 4 shall become effective on and after October 14, 1970.

Rule 4.4. The director or his representative may examine the weigh bills for all fuels delivered to and by all fossil fuel dealers by any means of transportation.

Rule 5. Prohibition of Hand-Fired Fuel-Burning Equipment.

Rule 5.1. All operation or use of hand-fired fuel-burning equipment with solid fuels is prohibited.

Rule 5.2. Rule 5.1 shall not apply to fuel-burning equipment used exclusively for heating a dwelling designed and used for occupancy of less than three (3) families.

Rule 6. Prohibition of Open Burning.

Rule 6.1. No person shall cause, suffer, allow or permit open burning except as provided in Rule 6.3, Rule 6.4, Rule 6.5, and Rule 6.6. No person shall fail or refuse to take all reasonable and necessary steps and precautions to prevent open burning upon any premises owned, occupied or under the control of such person. No person shall fail or refuse to take all reasonable and necessary steps and precautions to extinguish or otherwise terminate and abate any open burning which has originated through any cause whatsoever upon any premises owned, occupied or under the control of such person or upon premises upon which such person is carrying out any operation or activity.

Rule 6.2. No person shall conduct a salvage operation by open burning.

Rule 6.3. Open burning of vegetation and wood materials may be permitted by the director provided the following conditions are met:

(1) An application shall be submitted to the director giving the reasons why no other method of disposal can be employed, amount of material to be burned and location of material to be burned.

(2) A fee of twenty dollars ($20.00) shall be included with the application, which fee shall be collected by the bureau and remitted to the city treasurer.

(3) No burning shall occur until such inspection of the material as may be required by the bureau is conducted.

(4) Burning shall be conducted only on days of low pollution potential, as determined by the bureau, and only between the hours of 9:00 a.m. and 4:00 p.m. on such days.

(5) Only clean fuel not containing garbage, rubber, plastics, roofing materials, tar paper or other refuse shall be allowed for the startup of fires.

(6) Written approval is received from the director.

Rule 6.4. Controlled burning of vegetation and wood materials may be permitted by the director provided the following conditions are met:

(1) A signed application shall be submitted to the director including the following:

a. Complete plans and details of the method and equipment to be used for the control of such burning;

b. Name of the person in charge of the equipment and how he may be contacted.

(2) An annual fee of two hundred dollars ($200.00) shall be included with the application, which fee shall be collected by the bureau and remitted to the city treasurer. Controlled burning permits are renewable annually. Application for renewal of a controlled burning permit shall be made in writing not less than sixty (60) days prior to the expiration of the permit for which renewal is sought.

(3) Written approval is received from the director.

Rule 6.5. Open burning shall be allowed without compliance with Rule 6.3 only in the following specifically listed instances:

(1) Fires used for cooking of food or for ceremonial or recreational purposes, including barbecues and outdoor fireplaces, but only if such fires are fueled for that particular purpose.

(2) Fires set by or at the direction of responsible fire control agencies for the prevention, elimination or reduction of the spread of existing fires.

(3) Safety flares and smokeless flares, except those for the combustion of waste gases. Flares for the combustion of waste gases shall comply with applicable provisions of section 4-8 of this chapter.

(4) Open burning used solely for the purpose of warming persons who are in the out-of-doors performing work and conducting lawful activities, provided such fires use only clean fuel not containing garbage, rubber, plastics, roofing materials, tar paper or other refuse.

Rule 6.6. Open burning may be permitted in the following instances, provided a written statement, such as is required in Rule 6.3(1) is filed with the director and written approval is given by the director:

(1) Fires set for the training and instruction of public or private fire fighting personnel, including those in civil defense.

(2) Other open burning where there is no other practical, safe and lawful method of disposal.

Rule 7. *Incinerator Regulation.*

Rule 7.1. No person shall cause, suffer, allow or permit discharge of a visible emission from any incinerator with an opacity equal to or in excess of twenty (20) percent for an aggregate of more than three (3) minutes in any one (1) hour or more than twelve (12) minutes in any twenty-four-hour period.

Rule 7.2. No person shall cause, suffer, allow or permit particulate emission from any incinerator in excess of 0.1 pounds per one hundred (100) pounds charge or in excess of the following:

Input (lbs. per hour)	*Maximum Allowable Emissions* (grains per std. dry cu. ft.)
0-5000	0.20
5001 & above	0.15

Test results shall be calculated (1) to twelve (12) percent carbon dioxide for products of combustion, (2) to standard conditions. This limitation shall be met when the incinerator is operating at full load. In measuring emissions from incinerators the carbon dioxide produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to a maximum of twelve (12) percent carbon dioxide.

Tests to determine compliance with this rule shall be conducted as provided in sections 4-3, 4-8, and 4-11 of this chapter.

Rule 7.3. All incinerators constructed after October 14, 1969, shall be of the multiple chamber design consisting of three (3) or more refractory lined combustion furnaces connected in series and when operating shall (1) create a preignition temperature of eight hundred (800) degrees Fahrenheit in the primary furnace and (2) maintain a temperature of fifteen hundred (1500) degrees Fahrenheit in the secondary furnace.

Designs other than those outlined above shall be considered on an individual basis and will be exempt from these provisions, if such design results in performance which meets the standards set forth in Rules 7.1 and 7.2 above.

Rule 7.4. Reserved.

Rule 7.5. On and after March 1, 1973, the person in responsible charge of the operation of an incinerator must be licensed by the bureau. Such license shall be issued only after a passing score is received on a standardized test to be devised and administered by the bureau. The bureau shall test persons on their knowledge of the principles of incineration, including but not necessarily limited to the subjects of preignition, firing and cleaning. The bureau shall have the power to collect a one-time fee of twenty dollars ($20.00) pursuant to the issuance of such license. Such fee shall be remitted to the city treasurer. The director shall have the authority to suspend or revoke such license if the person holding such license willfully or by reason of incompetence violates any provision of this chapter. No license issued in accordance with the provisions of this rule shall be assignable or transferable. The failure to

issue a license, or suspension or revocation of such license, shall be an order or determination of the director within the meaning of section 4-18(e) of this chapter.

Rule 7.6. The board has found that the ambient air quality standards for particulate matter are being violated in a portion of the city. The emission limitations for plants in existence prior to January 1, 1978, which are located in the particulate matter nonattainment area or which have a significant impact upon the particulate nonattainment area are to be found in Rule 26. The emission limitations that are found in Rule 26 are in addition to the limitations contained in this Rule 7.

Rule 8. Fuel-Burning Equipment Regulations.

Rule 8.1. No person shall cause, suffer, allow or permit the emission of air contaminants from fuel-burning equipment built or installed before January 1, 1973, in excess of that provided in Schedule 1 of Table 1 and the provisions of Rule 8.3.

Rule 8.2. No person shall cause, suffer, allow or permit the emission of air contaminants from fuel-burning equipment built or installed on and after January 1, 1973, in excess of that provided in Schedule 2 of Table 1.

Rule 8.3. The emission or escape into the open air of fly ash, particulate matter or other air contaminants, resulting from the combustion of fuel, from any fuel-burning equipment or from any stack connected thereto, in quantities exceeding the limits specified in Table 1 for the size of equipment involved is prohibited. The emission limitations specified in Table 1 are the maximum allowable emission in any consecutive sixty-minute period. The limitations, subject to linear interpolation, are to be conformed to when the fuel-burning equipment is operating at the maximum design heat input rating. The heat input rating of any unit discharging to a single stack shall be the maximum design input rating, including both heat available from burning of fuel and any sensible heat from materials introduced into the combustion zone at temperatures above the ambient air temperature. When two (2) or more fuel-burning units are connected to a single stack, the combined fuel-burning capacity of all units connected to the stack denotes the size of equipment in terms of Btu input for establishing the maximum allowable emission. When one (1) fuel-burning unit is connected to two (2) or more stacks, the heat input of the equipment shall be the criterion for the maximum allowable total emission from all stacks combined.

Tests to determine compliance with this rule shall be conducted as provided in sections 4-3, 4-8 and 4-11 of this chapter.

Rule 8.4. Fuel-burning equipment located in dwellings designed for not more than two (2) families are exempt from the operation of Rule 8.

Rule 8.5. The board has found that the ambient air quality standards for particulate matter are being violated in a portion of the city. The emission limitations for plants in existence prior to January 1, 1978, which are located in the particulate matter nonattainment area or which have a significant impact upon the particulate nonattainment area are to be found in Rule 26. The emission limitations that are found in Rule 26 are in addition to the limitations contained in this Rule 8.

TABLE 1

EMISSION LIMITATIONS FOR FUEL-BURNING EQUIPMENT

Use the following formulas:

Equipment Rating (10^6 Btu/hr.)	*Maximum Allowable Particulate Emissions (lbs./hr.)*	
	Schedule 1	*Schedule 2*
Below 10	$Q = 0.6 \times B$	$Q = 0.6 \times B$
10 to 250	$Q = 1.09 \times B^{0.7406}$	$Q = 2.16 \times B^{0.4434}$
250 and above	$Q = 1.09 \times B^{0.7406}$	$Q = 0.1 \times B$

Where:

Q = maximum allowable particulate emission in pounds per hour.
B = the burning rate in 10^6 Btu/hr.

Determine intermediate values by linear interpolation.

Rule 9. *Regulation of Visible Emissions from Internal Combustion Engines.*

Rule 9.1. No person shall cause, suffer, allow or permit the emission of visible air contaminants from any spark ignition engine of ten (10) brake horsepower or more:

(1) For a period of time exceeding ten (10) seconds; or

(2) After the vehicle has moved one hundred (100) yards or more from its initial starting point.

Rule 9.2. No person shall cause, suffer, allow or permit the visible emission of air contaminants from a diesel type engine for a period of more than sixty (60) consecutive seconds in excess of twenty (20) percent capacity.

Rule 9.3. Responsibility for compliance with Rules 9.1 and 9.2 applies to the owner, the registered owner, the lessee and the operator, individually, and each shall be jointly or severally liable for violation of these rules and subject to the fines and penalties of this chapter.

Rule 9.4. Reserved.

Rule 9.5. Testing in the outdoor atmosphere of internal combustion engines which have been or are to be repaired will be allowed if such tests are performed on the premises of the repairing facility.

Rule 9.6. No motor vehicle which is equipped with a pollution control device shall be modified or altered in any manner which will decrease its efficiency or effectiveness in the control of air pollution.

Rule 9.7. No diesel engine which supplies motive power to a vehicle shall be allowed to idle more than five (5) consecutive minutes when the vehicle is not in motion, except when the vehicle is forced to remain motionless because of traffic conditions over which the operator has no control; provided, however, that any diesel engine which supplies motive power to a truck or locomotive shall be allowed to idle for more than five (5) consecutive minutes when it is at a distance in excess of five hundred (500) feet from the nearest residential, recreational, institutional, retail sales, hotel or educational premises.

Rule 10. Process Emissions Regulations.

Rule 10.1. All installations, operations or equipment, except fuel-burning equipment and incinerators, from which any air contaminant is, or may be, emitted or permitted to escape into the open air shall comply with the provisions of this rule. The emission limitations specified in Table 2 are the maximum allowable emissions in any consecutive sixty-minute period.

Rule 10.2. No person shall cause, suffer, allow or permit emission from any air contaminant source built or installed before the first day of January, 1973, in excess of that provided in Schedule 1 of Table 2.

Rule 10.3. No person shall cause, suffer, allow or permit emission from any air contaminant source built or installed on and after January 1, 1973, in excess of that provided in Schedule 2 of Table 2.

Rule 10.4. Tests to determine compliance with this Rule 10 shall be conducted as provided in sections 4-3, 4-8 and 4-11 of this chapter; provided, however, that compliance with this Rule 10 does not exempt such persons from compliance with any other rule or section of this chapter applicable to emissions.

Rule 10.5. The board has found that the ambient air quality standards for particulate matter are being violated in a portion of the city. The emission limitations for plants in existence prior to January 1, 1978, which are located in the particulate matter nonattainment area or which have a significant impact upon the particulate nonattainment are to be found in Rule 26 are in addition to the limitations contained in this Rule 10.

Rule 10.6. Any other provision of this chapter notwithstanding, no person shall cause, suffer, allow or permit the discharge of particulate emissions from any asphalt plant with an input process weight rate greater than two hundred thousand (200,000) pounds per hour in excess of 51.2 pounds per hour

Rule 10.7. Irrespective of the maximum allowable particulate emission limitations contained in Table 2 of this Rule 10, no person shall cause, suffer, allow or permit the discharge of particulate emissions from process equipment in excess of 0.25 grains per cubic foot of stack gases corrected to seventy (70) degrees Fahrenheit and one (1) atmosphere. This Rule 10.7 shall not apply to vents from storage tanks for liquids.

TABLE 2

PARTICULATE MATTER EMISSION LIMITATIONS FOR PROCESS EQUIPMENT

Input Process Weight Lbs./hour	Input Process Weight Tons/hour	Maximum Allowable Emission Rate Schedule 1*1	Maximum Allowable Emission Rate Schedule 2*2
50	0.025	0.346	0.36
100	0.05	0.551	0.55
200	0.10	0.877	0.86
400	0.20	1.40	1.32
600	0.30	1.83	1.70
800	0.40	2.22	2.03
1,000	0.50	2.58	2.34
1,500	0.75	3.38	3.00

2,000	1.00	4.10	3.59
2,500	1.25	4.76	4.12
3,000	1.50	5.38	4.62
3,500	1.75	5.96	5.08
4,000	2.00	6.52	5.52
5,000	2.50	7.58	6.34
6,000	3.00	8.56	7.09
7,000	3.50	9.49	7.81
8,000	4.00	10.4	8.50
9,000	4.50	11.2	9.10
10,000	5.00	12.0	9.70
12,000	6.00	13.6	10.9
16,000	8.00	16.5	13.0
18,000	9.00	17.9	14.0
20,000	10.00	19.2	15.0
30,000	15.00	25.2	19.2
40,000	20.00	30.5	23.0
50,000	25.00	35.4	26.4
60,000	30.00	40.0	29.6
70,000	35.00	41.3	30.6
80,000	40.00	42.5	31.2
90,000	45.00	43.6	31.8
100,000	50.00	44.6	32.4
120,000	60.00	46.3	33.3
140,000	70.00	47.8	34. 2
160,000	80.00	49.0	34.9
200,000	100.00	51.2	36.1
1,000,000	500.00	69.0	46.7
2,000,000	1,000.00	77.6	52.3
6,000,000	3,000.00	92.7	62.3

*[1] Interpolation of the data in Schedule 1 for process weight rates up to 60,000 lbs/hour shall be accomplished by using the following equation: $E = 4.10\ P^{0.67}$.

Interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs/hour shall be accomplished by using the following equation:

$$E = 55.0\ P^{0.11} - 40$$

Where: E = Maximum allowable emission rate in lbs/hour
P = Process weight rate in tons/hour

*[2] Interpolation of the data in Schedule 2 for process weight rates up to 60,000 lbs/hour shall be accomplished by the use of the following equation:

$$E = 3.59\ P^{0.62}$$

Interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs/hour shall be accomplished by the use of the following equation:

$$E = 17.31\ P^{0.16}$$

Where: E = Maximum allowable emission rate in lbs/hour, and
P = Process weight rate in tons per hour

Rule 11. *Regulation of Transporting and Material Handling in Open Air.*

Rule 11.1. No person shall cause or permit the handling, processing or storage of any material in the open air in a manner which allows or may allow particulate matter to become airborne which exceeds twenty (20) percent opacity for more than three (3) minutes in any consecutive sixty-minute period, or more than twenty (20) minutes in any twenty-four-hour period.

Rule 11.2. No person shall cause or permit a building or its appurtenances, a road, a driveway, a parking area or an open area to be constructed, used, repaired or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne. The director may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne including but not limited to paving or cleaning of roads, driveways and parking, areas; by the application of dustfree surfaces; by the application of water; and by the planting and maintenance of vegetative ground cover.

Rule 11.3. No person shall transport any material in the open air in a manner which allows or may allow particulate matter to become airborne beyond the boundary line of the property of the person doing the transporting.

Rule 12. Regulation of Odors in the Ambient Air.

Rule 12.1. An odor will be deemed "objectionable" when fifteen (15) percent or more of the people exposed to it believe it to be objectionable in usual places of occupancy based on a sample size of at least twenty (20) people or if fewer than twenty (20) people are exposed, when a minimum of three (3) people exposed to it believe it to be objectionable.

Rule 12.2. No person shall cause, suffer, allow or permit emission such as to cause an "objectionable" odor on or adjacent to residential, recreational, institutional, retail sales, hotel or educational premises.

Rule 12.3. No person shall cause, suffer. allow or permit emission such as to cause an "objectionable" odor on or adjacent to premises other than those listed in Rule 12.2, unless the odor is not detectable where air containing such odorous matter is diluted with a maximum of four (4) equal volumes of odor-free air.

Rule 13. Regulation of Sulfur Oxides.

Rule 13.1. No person shall cause, suffer, allow or permit the emission of gas containing sulfur dioxide from any source, except fuel-burning equipment, in excess of five hundred (500) ppm.

Rule 13.2. No person shall cause, suffer, allow or permit the emission from fuel-burning equipment of sulfur dioxide gas in excess of four (4) pounds per million Btu of fuel consumed in the equipment.

Rule 13.3. All sampling of exhaust gases from any source of sulfur dioxide, and all analyses of samples to determine the amount of sulfur dioxide in exhaust gases, shall be conducted as specified by techniques promulgated by the board.

Rule 13.4. For the purposes of this Rule 13, all sulfur present in gaseous compounds and containing oxygen shall be deemed to be present as sulfur dioxide.

Rule 13.5. Compliance with this Rule 13 shall not relieve a person from the requirements of Rule 12 or from the requirements of any other rules or provisions of this chapter.

Rule 14. Nuisances.

Rule 14.1. No person shall cause, suffer, allow or permit or fail to take reasonable steps to abate or terminate the discharge from any source whatsoever of air contaminants or other material which shall cause injury, detriment, nuisance or annoyance of the public or which endanger the comfort, repose, health or safety of the public or which cause or have a tendency to cause injury or damage to business or property.

Rule 14.2. No person shall cause, suffer, allow or permit or fail to take reasonable steps to abate or terminate the discharge from any source whatsoever of air contaminants or water or steam or a combination of such which cause, or combine with natural elements to cause, the reduction of visibility across any road or thoroughfare to such an extent as to cause a hazard.

Rule 14.3. Nothing in any other section of this chapter relating to regulation of emission or pollutants shall in any manner be construed as authorizing or legalizing the creation or maintenance of a nuisance as described in this Rule 14 or as may otherwise be deemed by law to be a nuisance.

Rule 15. New Source Performance Standards.

Rule 15.1. The emissions standards, limitations, prohibitions, and requirements for new sources contained in Title 40 Code of Federal Regulations Part 60-Standards of Performances for New Stationary Sources and its included appendices (Revised as of July 1, 1996), except for Subpart B-Adoption and Submittal of State Plans for Designated Facilities, and 62 FR 48383-48391, September 15, 1997, are hereby incorporated by reference in Chapter 4 as requirements of this municipality. The following subparts are included:

Subpart A--	General Provisions
Subpart C--	Emission Guidelines and Compliance Times
Subpart Ca--	Emissions Guidelines and Compliance times for Municipal Waste Combustors
Subpart Cb--	Emission Guidelines and Compliance Times for Sulfuric Acid Production Units
Subpart D--	Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971
Subpart Da--	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978
Subpart Db--	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

Subpart Dc--	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
Subpart E--	Standards of Performance for Incinerators
Subpart Ea--	Standards of Performance for Municipal Waste Combustors
Subpart F--	Standards of Performance for Portland Cement Plants
Subpart G--	Standards of Performance for Nitric Acid Plants
Subpart H--	Standards of Performance for Sulfuric Acid Plants
Subpart I--	Standards of Performance for Asphalt Concrete Plants
Subpart J--	Standards for Performance for Petroleum Refineries
Subpart K--	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978
Subpart Ka--	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
Subpart Kb--	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984)
Subpart L--	Standards of Performance for Secondary Lead Smelters
Subpart M--	Standards of Performance for Secondary Brass and Bronze Production Plants
Subpart N--	Standards of Performance for Primary Emissions from Basic Oxygen Process Furnances (sic) 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--	Standards of Performance for Sewage Treatment Plants
Subpart P--	Standards of Performance for Primary Copper Smelters
Subpart Q--	Standards of Performance for Primary Zinc Smelters
Subpart R--	Standards of Performance for Primary Lead Smelters
Subpart S--	Standards of Performance for Primary Aluminum Reduction Plants
Subpart T--	Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants
Subpart U--	Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants
Subpart V--	Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants

Subpart W--	Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants
Subpart X--	Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities
Subpart Y--	Standards of Performance for Coal Preparation Plants
Subpart Z--	Standards of Performance for Ferroalloy Production Facilities
Subpart AA--	Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and on or Before August 17, 1983
Subpart AAa--	Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburitzation Vessels Constructed After August 7, 1983
Subpart BB--	Standards of Performance for Kraft Pulp Mills
Subpart C--	Standards of Performance for Glass Manufacturing Plants
Subpart DD--	Standards of Performance fo (sic) Grain Elevators
Subpart EE--	Standards of Performance for Surface Coating of Metal Furniture
Subpart FF	(Reserved)
Subpart GG--	Standards of Performance for Stationary Gas Turbines
Subpart HH--	Standards of Performance for Lime Manufacturing Plants
Subpart KK--	Standards of Performance for Lead-Acid Battery Manufacturing Plants
Subpart LL--	Standards of Performance for Metallic Mineral Processing Plants
Subpart MM--	Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations
Subpart NN--	Standards of Performance for Phosphate Rock Plants
Subpart PP--	Standards of Performance for Ammonium Sulfate Manufacture
Subpart QQ--	Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing
Subpart RR--	Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations
Subpart SS--	Standards of Performance for Industrial Coating: Large Appliances
Subpart TT--	Standards of Performance for Metal Coil Surface Coating
Subpart UU--	Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture
Subpart VV--	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
Subpart WW--	Standards of Performance for the Beverage Can Surface Coating Industry
Subpart XX--	Standards of Performance for Bulk Gasoline Terminals
Subpart AAA--	Standards of Performance for New Residential Wood Heaters
Subpart BBB--	Standards of Performance for the Rubber Tire Manufacturing Industry
Subpart CCC	(Reserved)

Subpart DDD--	Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry
Subpart EEE	(Reserved)
Subpart FFF--	Standards of Performance for Flexible Vinyl and Urethane Coating and Printing
Subpart GGG--	Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
Subpart HHH--	Standards of Performance for Synthetic Fiber Production Facilities
Subpart III--	Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes
Subpart JJJ--	Standards of Performance for Petroleum Dry Cleaners
Subpart KKK--	Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants
Subpart LLL--	Standards of Performance for Onshore Natural Gas Processing; SO_2 Emissions
Subpart MMM	(Reserved)
Subpart NNN--	Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations
Subpart OOO--	Standards of Performance for Nonmetallic Mineral Processing Plants
Subpart PPP--	Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants
Subpart QQQ--	Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Subpart RRR	(Reserved)
Subpart SSS-	Standards of Performance for Magnetic Tape Coating Facilities
Subpart TTT--	Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines
Subpart UUU--	Standards of Performance for Calciners and Dryers in Mineral Industries
Subpart VVV--	Standards of Performance for Polymeric Coating of Supporting Substrates Facilities
Subpart Ec--	Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996

Appendices A through I

Rule 15.2. Wherever the term "Administrator" is used in the new source performance standards, the term "Chattanooga-Hamilton County Air Pollution Control Board or Director of the

Chattanooga-Hamilton County Air Pollution Control Bureau" shall be substituted, where appropriate, for the purposes of Rule 15.

Rule 15.3. Emissions Standards for Municipal Solid Waste Landfills.

(a) *Definitions*. All terms defined in this rule shall have the meaning given them herein, and all terms not defined herein shall have the meaning given them in Section 4-2.

(1) *Existing municipal solid waste (MSW) landfill or existing MSW landfill* means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land for which construction, reconstruction or modification was commenced before the effective date of this ordinance. (It should be noted that federal regulations control for sources where construction, reconstruction or modification was commenced before the effective date of this ordinance.) An existing MSW landfill may also receive other types of wastes described in Subtitle D of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, (Title 42 U.S.C. § 6901 *et seq*.) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an existing MSW landfill may be separated by access roads. An existing MSW landfill may be publicly or privately owned. Physical or operational changes made to an existing MSW landfill solely to comply with these emission guidelines are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements for a new MSW landfill. Activities required by or conducted pursuant to a remedial action pursuant to Title 42 U.S.C. § 9601 *et seq*. (CERCLA), Title 42 U.S.C. § 6901 *et seq*. (RCRA), or State remedial action are not considered construction, reconstruction, or modification for purposes of Rule 15.3. For purposes of obtaining an operating permit under Article III. of Chapter 4, Part 70 Source Regulation and Permits, the owner or operator of a MSW landfill subject to Rule 15.3 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 Article III unless the landfill is otherwise subject to Article III. For purposes of submitting a timely application for an operating permit under Article III. Part 70 Source Regulation and Permits, the owner or operator of a MSW landfill subject to Rule 15.3 with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters on the effective date of approval by U.S. EPA of Rule 15.3, and not otherwise subject to Article III, becomes subject to the requirements of Section 4-56(a)(i) or Title 40 CFR §71.5(a)(1)(I) 90 days after the effective date of such approval, even if the design capacity report is submitted earlier.

(2) *New municipal solid waste (MSW) landfill or new MSW landfill* means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land for which construction, reconstruction or modification was commenced on or after the effective

date of this ordinance. Physical or operational changes made to an existing MSW landfill solely to comply with the provisions of Rule 15.3 that apply to an existing MSW landfill are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements in Rule 15.3 for a new MSW landfill. Activities required by or conducted pursuant to a remedial action pursuant to Title 42 U.S.C. §9601 *et seq*. (CERCLA), Title 42 U.S.C. §6901 *et seq*. (RCRA), or State remedial action are not considered construction, reconstruction, or modification for purposes of Rule 15.3. For purposes of obtaining an operating permit under Article III. Part 70 Source Regulation and Permits, the owner or operator of a MSW landfill subject to Rule 15.3 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 Article III., unless the landfill is otherwise subject to Article III. For purposes of submitting a timely application for an operating permit under Article III. Part 70 Source Regulation and Permits, the owner or operator of a MSW landfill subject to Rule 15.3 with a design capacity greater than or equal to 2.5 megagrams and 2.5 million cubic meters on the effective date of approval by U.S. EPA of Rule 15.3, and not otherwise subject to either Article III., becomes subject to the requirements of Section 4-56(a)(1)(i) 90 days after the effective date of such approval, even if the design capacity report is submitted earlier.

(3) *Active Collection System* means a gas collection system that uses gas mover equipment.

(4) *Active Landfill* means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

(5) *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 Title 40 CFR § 60.7(a)(4), which has been incorporated by reference in Chapter 4. Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. When a MSW landfill subject to Rule 15.3 is closed, the owner or operator is no longer subject to the requirement of maintaining a Part 70 operating permit under Article III of this ordinance for the landfill if the landfill is not otherwise subject to the requirements of Article III and if either of the following conditions are met:

a. The landfill was never subject to the requirements for a control system under Title 40 CFR § 60.33c(c), which has been incorporated by reference in Chapter 4; or

b. The owner or operator meets the conditions for control system removal specified in Rule 15.3(b)(2)b.5.

(6) *Closure* means that point in time when a landfill becomes a closed landfill.

(7) *Commercial Solid Waste* means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

(8) *Controlled Landfill* means any landfill at which collection and control systems are required under Rule 15.3 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 Rule 15.3(b)(2)b.

(9) *Design Capacity* means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent construction or operating permit issued by the State or local agency responsible for regulating the landfill 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 Mg. or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

(10) *Disposal Facility* means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

(11) *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.

(12) *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.

(13) *Flare* means an open combustor without enclosure or shroud.

(14) *Gas Mover Equipment* means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

(15) *Household Waste* means any solid waste (including garbage, trash, and sanitary waste in septic tanks) 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).

(16) *Reserved.*

Editor's note-Number (16) was not included in Ord. No. 10786, § 37, adopted 10-27-98, but is being reserved for future inclusion.

(17) *Industrial Solid Waste* means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, Title 40 CFR Part 264 and Part 265. 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 mining waste or oil and gas waste.

(18) *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.

(19) *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 Title 40 CFR § 257.2, which has been incorporated by reference in Chapter 4.

(20) *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.

(21) *Modification* means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion.

(22) *Municipal Solid Waste (MSW) Landfill or MSW Landfill* means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (as defined in Title 40 CFR § 257.2, which has been incorporated by reference in Chapter 4) 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.

(23) *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.

(24) *NMOC* means nonmethane organic compounds, as measured according to the provisions of Rule 15.3(d).

(25) *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.

(26) *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.

(27) *Sludge* means any 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.

(28) *Solid waste* means any garbage, 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, but does not include 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 permits under Title 33 U.S.C. §1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (Title 42 U.S.C. §2011 *et seq*.)

(29) *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 Rule 15.3.

(30) *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.

(b) *Emission Standards*.

(1) Each owner or operator of an existing MSW landfill or a new 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 Rule 15.3(g)(1). 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 report. Submittal of the initial design capacity report shall fulfill the requirements of Rule 15.3 except as provided for in Rule 15.3(b)(1) and (2).

a. The owner or operator shall submit to the Director an amended design capacity report, as provided for in Rule 15.3(g)(1)c.

b. When an increase in the maximum design capacity of a landfill exempted from the provisions of Rule 15.3(b)(2) through Rule 15.3(i) on the basis of the design capacity exemption in Rule 15.3(b)(1) 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 Rule 15.3(b)(2).

(2) 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 Rule 15.3(b)(2)b. or calculate an NMOC emission rate for the landfill using the procedures specified in Rule 15.3(d). The NMOC emission rate shall be recalculated annually, except as provided in Rule 15.3(g). The owner or operator of an MSW landfill subject to Rule 15.3 with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to Article III. of Chapter 4 entitled Part 70 Source Regulation and Permits.

a. If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

1. Submit an annual emission report to the Director, except as provided for in Rule 15.3(g)(2)a.2.; and

2. Recalculate the NMOC emission rate annually using the procedures specified in Rule 15.3(d)(1)a. until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(i) If the NMOC emission rate, upon recalculation required in Rule 15.3(b)(2)a.2., is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with Rule 15.3(b(2)b.

(ii) If the landfill is permanently closed, a closure notification shall be submitted to the Director and the Administrator as provided for in Rule 15.3(g)(4).

b. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

1. Submit a collection and control system design plan prepared by a professional engineer to the Director within 1 year after the submittal of an initial or annual NMOC report pursuant to Rule 15.3(g)(2) reporting this NMOC emission rate:

(i) The collection and control system as described in the plan shall meet the design requirements of Rule 15.3(b)(2)b.2.

(ii) The collection and control system design plan shall include any alternatives proposed by the owner or operator to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of Rule 15.3(c) through (h).

(iii) The collection and control system design plan shall either conform with specifications for active collection systems outlined in Rule 15.3(i) or include a demonstration to the Director's satisfaction of the sufficiency of the alternative provisions to Rule 15.3(i).

(iv) The Director shall review the information submitted under Rule 15.3(b)(2)b.1.(i), (ii) and (iii) 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.

2. Install a collection and control system that captures the gas generated within the landfill as required under Rule 15.3(b)(2)b.2.(i) or b.2.(ii) and (b)(2)b.3. 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 Rule 15.3(g)(3)a. or b.

(i) An active collection system shall:

(A) 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;

(B) 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:

(aa) 5 years or more if active; or

(bb) 2 years or more if closed or at final grade;

(C) Collect gas at a sufficient extraction rate;

(D) Be designed to minimize off-site migration of subsurface gas.

(ii) A passive collection system shall:

(A) Comply with the provisions specified in Rule 15.3(b)(2)b.2.(i)(A), (B), and (D).

(B) 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 Title 40 CFR § 258.40, which has been incorporated by reference in Chapter 4.

3. Route all the collected gas to a control system that complies with the requirements in either Rule 15.3(b)(2)b.3.(i), (ii) or (iii).

(i) An open flare designed and operated in accordance with Title 40 CFR § 60.18, which has been incorporated by reference in Chapter 4;

(ii) 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 the initial startup of this approved control system using the test methods specified in Rule 15.3(d)(4).

(A) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(B) 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 Rule 15.3(f).

(iii) 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 Rule 15.3(b)(2)b.3.(i) or (ii).

4. Operate the collection and control device installed to comply with Rule 15.3 in accordance with the provisions of Rule 15.3(c), (e) and (f).

5. The collection and control system may be capped or removed provided that all the conditions of Rule 15.3(b)(2)b.5.(i), (ii), and (iii) are met:

(i) The landfill shall be a closed landfill as defined in Rule 15.3(a)(5). A closure report shall be submitted to the Director and Administrator as provided in Rule 15.3(g)(4).

(ii) The collection and control system shall have been in operation a minimum of 15 years; and

(iii) Following the procedures specified in Rule 15.3(d)(2), 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.

(3) Control of emissions from an existing MSW landfill is required and compliance with permitting requirements for Part 70 sources, contained in Article III of Chapter 4 of the Chattanooga City Code, is required if the existing landfill meets the following three conditions:

a. The landfill has accepted waste at any time since November 8, 1987, or had additional design capacity available for future waste deposition;

b. The landfill has a design capacity greater than or equal to 2.5 million megagrams and 2.5 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 report; and

c. The landfill has a nonmethane organic compound emission rate of 50 megagrams per year or more.

(4) For the purposes of obtaining an operating permit under Article III. of Chapter 4, Part 70 Source Regulation and Permits, the owner or operator of a MSW landfill subject to Rule 15.3 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 Article III, unless the landfill is otherwise subject to Article III. For purposes of submitting a timely application for an operating permit under Article III., the owner or operator of a MSW landfill subject to Rule 15.3 with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to Article III., becomes subject to the requirements of Section 4-56(a)(1), regardless of when the design capacity report is actually submitted, no later than:

a. Ninety days after [the effective date of this ordinance] for MSW landfills that commenced construction, modification or reconstruction before [the effective date of this ordinance]**;**

b. Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after [the effective date of this ordinance].

(5) When a MSW landfill subject to Rule 15.3 is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under Article III. for the landfill if the landfill

is not otherwise subject to the requirements of Article III. and if either of the following conditions are met:

a. The landfill was never subject to the requirement for a control system under Rule 15.3; or

b. The owner or operator meets the conditions for control system removal specified in Rule 15.3 (b)(2)b.5.

(c) *Operational Standards for Collection and Control Systems.* Each owner or operator of an MSW landfill gas collection system used to comply with the provisions of Rule 15.3(b)(2)b.2. shall:

(1) 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:

a. 5 years or more if active; or

b. 2 years or more if closed or at final grade;

(2) Operate the collection system with negative pressure at each wellhead except under the following conditions:

a. 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 Rule 15.3(g)(6)a.;

b. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

c. A decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Director.

(3) 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.

a. The nitrogen level shall be determined using Method 3C as described in Section 4-3(c)(3) of Chapter 4, unless an alternative test method is established as allowed by Rule 15.3(b)(2)b.1.

b. Unless an alternative test method is established as allowed by Rule 15.3(b)(2)b.1., the oxygen shall be determined by an oxygen meter using Method 3A as described in Section 4-3(c)(3) except that:

1. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

2. A data recorder is not required;

3. Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

4. A calibration error check is not required;

5. The allowable sample bias, zero drift, and calibration drift are $\pm$ 10 percent.

(4) 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.

(5) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Rule 15.3(b)(2)b.3. 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 l hour.

(6) Operate the control or treatment system at all times when the collected gas is routed to the system.

(7) If monitoring demonstrates that the operational requirements in Rule 15.3(c)(2), (3) or (4) are not met, corrective action shall be taken as specified in Rule 15.3(e)(1)c., d. and e. or Rule 15.3(e)(3). If corrective actions are taken as specified in Rule 15.3(e), the monitored exceedance is not a violation of the operational requirements of Rule 15.3(c).

(d) *Test Methods and Procedures.*

(1) a. The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in Rule 15.3(d)(1)a.1. or the equation provided in Rule 15.3(d)(1)a.2. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Rule 15.3(d)(1)a.1., for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in Rule 15.3(d)(1)a.2., 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 $C_{NMOC.}$ For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

1. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2\, k\, L_o\, M_i\, (e^{-kt_i})\, (C_{NMOC})\, (3.6. \times 10^{-9})$$

where,

M_{NMOC}	=	Total NMOC emission rate from the landfill, megagrams per year
k	=	Methane generation rate constant, year $^{-1}$
L_0	=	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
C_{NMOC}	=	Concentration of NMOC, parts per million by volume as hexane
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.

2. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_0 R (e^{-ke} - e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC}	=	Mass emission rate of NMOC, megagrams per year
L_0	=	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 landfill, years
C_{NMOC}	=	Concentration of NMOC, parts per million by volume as hexane
c	=	Time since closure, years. For active landfill c = 0 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 documentation of the nature and amount of such wastes is maintained.

b. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

1. If the NMOC emission rate calculated in Rule 15.3(d)(1)a. is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in Rule 15.3(g)(2)a. and shall recalculate the NMOC mass emission rate annually as required by Rule 15.3(b)(2)a.

2. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with Rule 15.3(b)(2)b. or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in Rule 15.3(d)(1)c.

c. 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 Title 40 CFR Part 60, Appendix A, Method 25C or Method 18, which have been incorporated by reference in Chapter 4 and are described in Section 4-3(c)(3). If using Method 18 of Appendix A, the minimum list of compounds to be tested shall be those published in the Fifth Edition January, 1995 U.S. Environmental Protection Agency 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 of Appendix A of Title 40 CFR Part 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

1. The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in Rule 15.3(d)(1)a.1. or a.2. and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in Rule 15.3(d)(1)a.

2. 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 Rule 15.3(b)(2)b., 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 Rule 15.3(d)(1)d.

3. 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 Rule 15.3(g)(2)a. and retest the site-specific NMOC concentration every 5 years using the methods specified in Rule 15.3(d).

d. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A of Title 40 CFR Part 60, which has been incorporated by reference in Chapter 4 and is described in Section 4-3(c)(3). The landfill owner or operator shall estimate the NMOC mass emission rate using equations in Rule 15.3(d)(1)a.1. or a.2. and using a site-specific methane generation

rate constant k, and the site-specific NMOC concentration as determined in Rule 15.3(d)(1)c. instead of the default values provided in Rule 15.3(d)(1)a. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

1. 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 Rule 15.3(b)(2)b.

2. 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 Rule 15.3(g)(2) and shall recalculate the NMOC mass emission rate annually, as provided in Rule 15.3(g)(2) using the equations in Rule 15.3(d)1)a. and using the site-specific methane generation rate constant and NMOC concentration obtained in Rule 15.3(d)(1)c. 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.

e. 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 Rule 15.3(d)(1)c. and d. if the method has been approved by the Administrator.

(2) After the installation of a collection and control system in compliance with Rule 15.3(e), the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in Rule 15.3(b)(2)b.5. 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 by volume as hexane

a. 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 of Title 40 CFR Part 60, which has been incorporated by reference in Chapter 4 and is described at Section 4-3(c)(3).

b. 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 of Title 40 CFR Part 60, which has been incorporated by reference in Chapter 4 and is described at Section 4-3(c)(3). If using Method 18, the minimum list of compounds to be tested shall be those published in the Fifth Edition January 1995 U.S. Environmental Protection Agency 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.

c. 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 Administrator.

(3) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of Rule 15.3 shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in Section 4-41, Rule 18 using AP-42 or other measurement procedures approved in advance by the Director.

(4) For the performance test required in Rule 15.3(b)(2)b.3.(ii), Method 25C or Method 18 of Appendix A of Title 40 CFR Part 60, which have been incorporated by reference herein and are described at Section 4-3(c)(3), shall be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator. If using Method 18 of Appendix A of Title 40 CFR Part 60, the minimum list of compounds to be tested shall be those published in the Fifth Edition January 1995 U.S. Environmental Protection Agency Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

Control Efficiency = $(NMOC_{in} - NMOC_{out}) / (NMOC_{in})$

where,

$NMOC_{in}$ = Mass of NMOC entering control device

$NMOC_{out}$ = Mass of NMOC exiting control device

(e) *Compliance Provisions.*

(1) Except as provided in Rule 15.3(b)(2)b.1.(ii), the specified methods in Rule 15.3(e)(1)a. through f. shall be used to determine whether the gas collection system is in compliance with Rule 15.3(b)(2)b.2.

a. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Rule 15.3(b)(2)b.2.(i)(A), one of the following equations shall be used. The k and L_0 kinetic factors should be those published in the Fifth Edition January, 1995 U.S. Environmental Protection Agency 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 Rule 15.3(d)(1)d., 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.

1. For sites with unknown year-to-year solid waste acceptance rate:

$$Q_M = 2L_o R (e^{-kc} - e^{-kt})$$

where,

Q_M = Maximum expected gas generation flow rate, cubic meters per year

L_0 = 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 $e^{-kc} = 1$)

2. For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2 k L_0 M_i (e^{-kt}i)$$

where,

Q_M	=	Maximum expected gas generation flow rate, cubic meters per year
k	=	Methane generation rate constant, $year^{-1}$
L_0	=	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

3. 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 Rule 15.3(e)(1)a.1. and a.2. 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 Rule 15.3(e)(1)a.1. and a.2. 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.

b. For the purposes of determining sufficient density of gas collectors for compliance with Rule 15.3(b)(2)b.2.(i)(B), 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.

c. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Rule 15.3(b)(2)b.2.(i)(C), 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 Rule 15.3(c)(2). 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.

d. Owners or operators are not required to expand the system as required in Rule 15.3(e)(1)c. during the first 180 days after gas collection system start-up.

e. 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 Rule 15.3(c)(3). 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.

f. An owner or operator seeking to demonstrate compliance with Rule 15.3 (b)(2)b.2.(i)(D) through the use of a collection system not conforming to the specifications provided in Rule 15.3(i) shall provide information satisfactory to the Director as specified in Rule 15.3(b)(2)b.1.(iii) demonstrating that offsite migration is being controlled.

(2) For purposes of compliance with Rule 15.3(c)(1), 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 Rule 15.3(b)(2)b.1. 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:

a. 5 years or more if active; or

b. 2 years or more if closed or at final grade.

(3) The following procedures shall be used for compliance with the surface methane operational standard as provided in Rule 15.3(c)(4).

a. 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 Rule 15.3(e)(4).

b. 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.

c. Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of Appendix A of Title 40 CFR Part 60, which has been incorporated by reference in Chapter 4 and is described in Section 4-3(c)(3) except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

d. 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 Rule 15.3(e)(3)d.1. through 5. shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Rule 15.3(c)(4).

1. The location of each monitored exceedance shall be marked and the location recorded.

2. 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.

3. 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 Rule 15.3(e)(3)d.5. shall be taken, and no further monitoring of that location is required until the action specified in Rule 15.3(e)(3)d.5. has been taken.

4. 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 Rule 15.3(e)(3)d.2. or d.3. shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in Rule 15.3(e)(3)d.3. or d.5. shall be taken.

5. 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 timeline for installation may be submitted to the Director for approval.

e. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(4) Each owner or operator seeking to comply with the provisions in Rule 15.3(e)(3) shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

a. The portable analyzer shall meet the instrument specifications provided in Section 3 of Method 21 of Appendix A of Title 40 CFR Part 60, which has been incorporated by reference in Chapter 4 and is described at Section 4-3(c)(3), except that "methane" shall replace all references to VOC.

b. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

c. To meet the performance evaluation requirements in Section 3.1.3 of Method 21 of Appendix A of Title 40 CFR Part 60, the instrument evaluation procedures of Section 4.4 of Method 21 of Appendix A shall be used.

d. The calibration procedures provided in Section 4.2 of Method 21 of Appendix A of Title 40 CFR Part 60 shall be followed immediately before commencing a surface monitoring survey.

(5) The provisions of Rule 15.3 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. A log of all start-ups, shutdown and malfunctions must be maintained on site.

(f) *Monitoring of Operations*. Except as provided in Rule 15.3(b)(2)b.1.(ii):

(1) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.2.(i)(A) 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:

a. Measure the gauge pressure in the gas collection header on a monthly basis as provided in Rule 15.3(e)(1)c.; and

b. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in Rule 15.3(e)(1)e.; and

c. Monitor temperature of the landfill gas on a monthly basis as provided in Rule 15.3(e)(1)e.

(2) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.3. by using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or $\pm 0.5°$ C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.

b. A device that records flow to or bypass of the control device. The owner or operator shall either:

1. 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

2. 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.

(3) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.3. by using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

a. 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.

b. A device that records flow to or bypass of the flare. The owner or operator shall either:

1. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least 15 minutes; or

2. 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.

(4) Each owner or operator seeking to demonstrate compliance with Rule 15.3(b)(2)b.3. by using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Director as provided in Rule 15.3(b)(2)b.1.(ii) 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.

(5) Each owner or operator seeking to install a collection system that does not meet the specifications in Rule 15.3(i) or seeking to monitor alternative parameters to those required by Rule 15.3(c) through (f) shall provide information satisfactory to the Director as provided in Rule 15.3(b)(2)b.1.(ii) and (iii) 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.

(6) Each owner or operator seeking to demonstrate compliance with Rule 15.3(e)(3) shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Rule 15.3(e)(4). 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.

(g) *Reporting Requirements*. Except as provided in Rule 15.3(b)(2)b.1.(ii):

(1) Each owner or operator subject to the requirements of Rule 15.3 shall submit an initial design capacity report to the Director.

a. The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under Title 40 CFR § 60.7(a)(1), which has been incorporated by reference in Chapter 4, and shall be submitted no later than

90 days after [the effective date of Rule 15.3] by each existing MSW landfill. The initial design capacity report for a new MSW landfill shall be submitted no later than 90 days after the date of commencement of construction, reconstruction, or modification as defined in Rule 15.3(a)(21), for landfills that commence construction, modification, or reconstruction on or after [the effective date of this ordinance].

b. The initial design capacity report shall contain the following information:

1. 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 permit issued by the State or local agency responsible for regulating the landfill;

2. The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State or local, agency responsible for regulating the landfill, 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.

c. An amended design capacity report shall be submitted to the Director providing notification of an 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 Rule 15.3(h)((6).

(2) Each owner or operator subject to the requirements of Rule 15.3 shall submit an NMOC emission rate report to the Director initially and annually thereafter, except as provided for in Rule 15.3(g)(2)a.2. or c. The Director may request such additional information as may be necessary to verify the reported NMOC emission rate.

a. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC mission rate calculated using the formula and procedures provided in Rule 15.3(d)(1) or (2) as applicable.

1. The initial NMOC emission rate report shall be submitted within 90 days after [the effective date of Rule 15.3] by each existing MSW landfill, and within 90 days after the commencement of construction, modification, or reconstruction by each new MSW landfill maybe combined with the initial design capacity report required in Rule 15.3(g)(1) and shall be submitted_no later than indicated in Rule 15.3(g)(2)a.1. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in Rule 15.3(g)(2)a.2. and Rule 15.3(g)(2) c.

2. 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.

b. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

c. Each owner or operator subject to the requirements of Rule 15.3 is exempted from the requirements of Rule 15.3(g)(2)a. and b., after the installation of a collection and control system in compliance with Rule 15.3(b)(2)b., during such time as the collection and control system is in operation and in compliance with Rule 15.3(c) and (e).

(3) Each owner or operator subject to the provisions of Rule 15.3(b)(2)b.1. shall submit a collection and control system design plan to the Director within 1 year of the first report, required under Rule 15.3(g)(2), in which the emission rate equals or exceeds 50 megagrams per year, except as follows:

a. If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in Rule 15.3(d)(1)c. 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.

b. 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 Rule 15.3(d)(1)d., and the resulting NMOC emission rate is less than 50 megagrams per year, 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 Rule 15.3(d)(1)d. 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.

(4) Each owner or operator of a controlled landfill shall submit a closure report to the Director and the Administrator within 30 days of waste acceptance cessation. The Director or the Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of Title 40 CFR § 258.60, which has been incorporated by reference in Chapter 4. If a closure report has been submitted to the Director and the Administrator, no additional wastes may be placed in the landfill without filing a notification of modification as described under Title 40 CFR § 60.7 (a)(4), which has been incorporated by reference in Chapter 4.

(5) 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.

a. The equipment removal report shall contain all of the following items:

1. A copy of the closure report submitted in accordance with Rule 15.3(g)(4);

2. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

3. 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.

b. The Director may request such additional information as may be necessary to verify that all of the conditions for removal in Rule 15.3(b)(2)b.5. have been met.

(6) Each owner or operator of a landfill seeking to comply with Rule 15.3(b)(2)b. using an active collection system designed in accordance with Rule 15.3(b)(2)b.2. shall submit to the Director annual reports of the recorded information required by Rule 15.3(g)(6)a. through f. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system or within 180 days of the date of adoption of Rule 15.3 for existing collection systems, and shall include the initial performance test report required under Title 40 CFR § 60.8, which has been incorporated by reference in Chapter 4. For enclosed combustion devices and flares, reportable exceedances are defined under Rule 15.3(h)(3).

a. Value and length of time for exceedance of applicable parameters monitored under Rule 15.3(f)(1), (2), (3), and (4).

b. 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 Rule 15.3(f).

c. 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.

d. All periods when the collection system was not operating in excess of 5 days.

e. The location of each exceedance of the 500 parts per million methane concentration as provided in Rule 15.3(c)(4) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

f. The date of installation and the location of each well or collection system expansion added pursuant to Rule 15.3(e)(1)c., (e)(2), and (e)(3)d.

(7) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.3. shall include the following information with the initial performance test report required under Title 40 CFR §60.8, which has been incorporated by reference in Chapter 4:

a. 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;

b. 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;

c. 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;

d. 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;

e. 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

f. The provisions for the control of off-site migration.

(h) *Recordkeeping Requirements.*

(1) Except as provided in Rule 15.3(b)(2)b.1., each owner or operator of an MSW landfill subject to the provisions of Rule 15.3(b)(2) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered Rule 15.3(b)(2), 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.

(2) Except as provided in Rule 15.3(b)(2)b.1.(ii), 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 Rule 15.3(h)(2)a. through d. 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.

a. Where an owner or operator subject to the provisions of Rule 15.3 seeks to demonstrate compliance with Rule 15.3(b)(2)b.2.:

1. The maximum expected gas generation flow rate as calculated in Rule 15.3(e)(1)a. 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.

2. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Rule 15.3(i)(1)a.

b. Where an owner or operator subject to the provisions of Rule 15.3 seeks to demonstrate compliance with Rule 15.3(b)(2)b.3. through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

1. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

2. The percent reduction of NMOC determined as specified in Rule 15.3(b)(2)b.3. achieved by the control device.

c. Where an owner or operator subject to the provisions of Rule 15.3 seeks to demonstrate compliance with Rule 15.3(b)(2)b.3.(ii)(A) 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.

d. Where an owner or operator subject to the provisions of Rule 15.3 seeks to demonstrate compliance with Rule 15.3(b)(2)b.3.(ii)(A) 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 Title 40 CFR § 60.18, which has been incorporated by reference in Chapter 4, continuous records of the flare pilot flame or flare flame monitoring, and records of all periods of operations during which the pilot flame of the flare flame is absent.

(3) Except as provided in Rule 15.3(b)(2)b.1.(ii), each owner or operator of a controlled landfill subject to the provisions of Rule 15.3 shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Rule

15.3(f) 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.

a. The following constitute exceedances that shall be recorded and reported under Rule 15.3(g)(6):

1. 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 Rule 15.3(b)(2)b.3. was determined.

2. 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 Rule 15.3(b)(2)b.3.(ii)(A).

b. Each owner or operator subject to the provisions of Rule 15.3 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 Rule 15.3(f).

c. Each owner or operator subject to the provisions of Rule 15.3 who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with Rule 15.3(b)(2)b.3. 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, local, or Federal regulatory requirements.)

d. Each owner or operator seeking to comply with the provisions of Rule 15.3 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 Rule 15.3(f), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(4) Except as provided in Rule 15.3(b)(2)b.1.(ii), each owner or operator subject to the provisions of Rule 15.3 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.

a. Each owner or operator subject to the provisions of Rule 15.3 shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under Rule 15.3(e)(2).

b. Each owner or operator subject to the provisions of Rule 15.3 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 Rule 15.3(i)(1)c.1. as well as any nonproductive areas excluded from collection as provided in Rule 15.3(i)(1)c.2.

(5) Except as provided in Rule 15.3(b)(2)b.1.(ii), each owner or operator subject to the provisions of Rule 15.3 shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards outlined in Rule 15.3(c), the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(6) 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" in Rule 15.3(a), 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 formats are acceptable.

(i) *Specifications for Active Collection Systems.*

(1) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.1. 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 Rule 15.3(b)(2)b.1.(iii) and (iv):

a. 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.

b. The sufficient density of gas collection devices determined in Rule 15.3(i)(1)a. 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.

c. The placement of gas collection devices determined in Rule 15.3(i)(1)a. shall control all gas producing areas, except as provided by Rule 15.3(i)(1)c.1. and c.2.

1. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under Rule 15.3(h)(4). 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.

2. 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:

$$Q_i = 2\ k\ L_0\ M_i\ (e^{-kti})\ (C_{NMOC})\ (3.6 \times 10^{-9})$$

where,

Q_i	=	NMOC emission rate from the ith section, megagrams per year
k	=	Methane generation rate constant, $year^{-1}$
L_0	=	Methane generation potential, cubic meters per megagram solid waste
M_i	=	Mass of the degradable solid waste in the ith section, megagrams
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

3. 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_0 and C_{NMOC} provided in Rule 15.3(d)(1)a. or the alternative values from Rule 15.3(d)(1)e. 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 Rule 15.3(i)(1)c.1.

(2) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.1.(i) shall construct the gas collection devices using the following equipment or procedures:

a. 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.

b. 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.

c. 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.

(3) Each owner or operator seeking to comply with Rule 15.3(b)(2)b.1.(i) shall convey the landfill gas to a control system in compliance with Rule 15.3(b)(2)b.3. 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:

a. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in Rule 15.3(i)(3)b. shall be used.

b. For new collection systems, the maximum flow rate shall be determined in accordance with Rule 15.3(e)(1)a.

Rule 16. Emission Standards for Hazardous Air Pollutants Other Than Asbestos.

Rule 16.1. The emissions standards, prohibitions, and requirements for hazardous air pollutants other than asbestos, contained in Title 40 Code of Federal Regulations Part 61, Subparts A, C, E, F, I, J, K, N, O, P, R, V, Y, BB, and FF and Appendices A through E to Part 61 (Revised as of July 1, 1996) are hereby incorporated by reference in Chapter 4 pursuant to T.C.A. § 68-201-115 as official emissions standards, prohibitions, and requirements for the control of air pollution.

The following subparts are included:

Subpart A--	General Provisions
Subpart C--	National Emission Standard for Beryllium
Subpart E--	National Emission Standard for Mercury
Subpart F--	National Emission Standard for Vinyl Chloride
Subpart I--	National Emission Standards for Radionuclide Emissions From Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities Not Covered by Subpart H
Subpart J--	National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene
Subpart K--	National Emission Standards for Radionuclide Emissions From Elemental Phosphorus Plants
Subpart N--	National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants
Subpart O--	National Emission Standard for Inorganic Emissions from Primary Copper Smelters
Subpart P--	National Emission Standard for Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities
Subpart R--	National Emission Standards for Radon Emissions from Phosphogypsum Stacks
Subpart V--	National Emission Standard for Equipment Leaks (Fugitive Emission Sources)

Subpart Y--	National Emission Standard for Benzene Emissions from Benzene Storage Vessels
Subpart BB--	National Emission Standard for Benzene Emissions from Benzene Transfer Operations
Subpart FF--	National Emission Standard for Benzene Waste Operations

Rule 16.2. Wherever the term "Administrator" is used in the national emission standards for hazardous air pollutants, the term "Chattanooga-Hamilton County Air Pollution Control Board or Director of the Chattanooga-Hamilton County Air Pollution Control Bureau" shall be substituted, where appropriate, for the purposes of Rule 16.

Rule 16.3. Where the term "construction permit" is used, the term "installation permit" shall be substituted for the purposes of Rule 16.1.

Rule 16.4. Where the term "commenced" is used, it shall have the meaning of the word "commence" in Section 4-2 of this Chapter.

Rule 16.5. Emission Standards for Source Categories of Area Sources.

(a) The definition of an "*area source*" for the purposes of Rule 16.5 is any stationary source that is not a "*major source*" as that term is defined in Title 40 CFR Part 63, which has been incorporated by reference in Chapter 4.
[Title 40 CFR Part 63.2]

(b) No emission standard or other requirement in Rule 16 shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement in this chapter for an area source.
[*Clean Air Act Section 112(d)(7)*]

(c) The emissions limitations, standards, prohibitions and requirements for hazardous air pollutants for source categories contained in Title 40 Code of Federal Regulations Part 63, Sub- parts A, D, F, G, H, I, L, M, N, O, Q, R, T, U, W, X, Y, CC, DD, EE, GG, II, JJ, KK, OO, PP, QQ, RR, VV, JJJ and Appendices A, C, and D, (Revised as of July 1, 1996) are hereby incorporated by reference in Chapter 4 pursuant to the provisions of T.C.A. § 68-201-115 as the official emissions limitations, standards, prohibitions, and requirements for the control of hazardous air pollutants for source categories of area sources.

(d) If the owner or operator of an area source has executed an enforceable agreement with the Administrator pursuant to the Title 42 U.S.C. Section 7412(i)(5)[Early Reductions Program] that contains more stringent requirements or more stringent emissions limitations than would otherwise be applicable under this chapter, any certificate of operation issued to the source shall include the requirements and emissions limitations contained in that agreement, unless the source is subsequently released from said enforceable agreement and such release is confirmed in a writing signed by the Administrator, or designee, and submitted to the director.

(e) No source shall emit any hazardous air pollutant in excess of any emissions limitation or contrary to any standard, prohibition or requirement contained in a certificate of operation, effective for new area sources beginning with initial operation and effective for existing area sources as expeditiously as practicable, but not later than the date determined by the Administrator in a standard promulgated in Title 40 Code of Federal Regulations Part 63, which has been incorporated by reference in Chapter 4, or such other compliance date as would apply under Title 42 U.S.C. 7412(i)[Early Reductions Program].
[*New: Clean Air Act §112(i)*]

Rule 16.6. The emissions standards, limitations, prohibitions, and requirements for hazardous air pollutants for source categories to be codified in Title 40 Code of Federal Regulations Part 63 and Appendices and presently published in the Federal Register volumes noted below are hereby incorporated by reference in Chapter 4 pursuant to the provisions of T.C.A. § 68-201-115 as official emissions standards, limitations, prohibitions and requirements for the control of hazardous air pollutants for source categories in this municipality:

(1) Title 40 CFR Part 63, Amendments to Subpart F--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry including Tables 1, 2 and 3 at 61 FR 64574-75, December 5, 1996; and Amendments to Title 40 Code of Federal Regulations Part 63, Subpart F at 62 FR 2729-2742, January 17, 1997; and

(2) Title 40 CFR Part 63, Amendments to Subpart G--National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater and Appendix at 61 FR 64575-78, December 5, 1996; and Amendments to Title 40 Code of Federal Regulations Part 63, Subpart G at 62 FR 2742-2771, January 17, 1997; and

(3) Title 40 CFR Part 63, Amendments to Subpart M--National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities at 61 FR 49265, September 19, 1996; and.

(4) Title 40 CFR Part 63, Subpart S—National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry at 63 FR 18616-18751, Aril 15, 1998; and

(5) Title 40 CFR Part 63, Amendments to Subpart R--National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) and Table 1 to Subpart R at 62 FR 9092-9093, February 28, 1997; and

(6) Title 40 CFR Part 63, Amendments to Subpart U--National Emission Standards for Hazardous Air Pollutant Emissions Group IV Polymers and Resins at 61 FR 46924-46985, September 12, 1996 and at 62 FR 1837-38, January 14, 1997 and at 62 FR 37722, July 15, 1997 and related Test Methods 310 A, B, C; Test Methods 312 A, B, C; and Test Methods 313A and B at 62 FR 12549-12564, March 17, 1997; and.

(7) Title 40 CFR Part 63, Amendments to Subpart Y--National Emission Standards for Marine Tank Vessel Landing Operations at 61 FR 66226, December 17, 1996; and

(8) Title 40 CFR Part 63, Amendments to Subpart CC--National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries and Appendix to Subpart CC at 62 FR 7938-39, February 21, 1997; and

(9) Title 40 CFR Part 63, Amendments to Subpart GG—National Emission Standards for Hazardous Air Pollutants for Aerospace Manufacturing and Rework Facilities at 61 FR 66227-28, December 17, 1996; and

(10) Title 40 CFR Part 63, Amendments to Subpart II—National Emission Standards for Shipbuilding and Ship Repair (Surface Coating) at 61 FR 66227-28, December 17, 1996; and

(11) Title 40 CFR Part 63, Amendments to Subpart JJ--National Emissions Standards for Wood Furniture Manufacturing Operations including Tables to Subpart JJ at 62 FR 31363, June 9, 1997; and

(12) Title 40 CFR Part 63, Amendments to Subpart JJJ--National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins at 61 FR 48229-48288, September 12, 1996 and at 62 FR 30995, June 6, 1997 and at 62 FR 37722; July 15, 1997; and

(13) Title 40 CFR Part 63, Amendments to Subpart A—General Provisions at 63 FR 53996, October 7, 1998 and at 64 FR 17562-17563, April 12, 1999, and Amendments to Appendix A to Part 63—Test Methods at 64 FR 31937-31962, June 14, 1999; and

(14) Title 40 CFR Part 63, Amendments to Subpart F—National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry at 63 FR 26081-82, May 12, 1998 and at 64 FR 201911, April 26, 1999; and

(15) Title 40 CFR Part 63, Amendments to Subpart G—National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater and Appendix at 64 FR 20191-20198, April 26, 1999; and

(16) Title 40 CFR Part 63, Amendments to Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks at 64 FR 20198, April 26, 1999; and

(17) Title 40 CFR Part 63, Amendments to Subpart Q—National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers at 63 FR 39519, July 23, 1998; and

(18) Title 40 CFR Part 63, Amendments to Subpart S—National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry at 63 FR 49459, September 16, 1998, and at 63 FR 71389, December 28, 1998, and at 64 FR 17563-17564, April 12, 1999; and

(19) Title 40 CFR Part 63, Amendments to Subpart T—National Emission Standards for Halogenated Solvent Cleaning at 63 FR 24751, May 5, 1998 and at 63 FR 68400, December 11, 1998 and at 64 FR 37687, July 13, 1999; and

(20) Title 40 CFR Part 63, Amendments to Subpart U—National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins at 64 FR 11542-11547, March 9, 1999 and at 64 FR 24511-12, May 7, 1999 and at 64 FR 35028, June 30, 1999; and

(21) Title 40 CFR Part 63, Amendments to Subpart CC—National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries at 63 FR 13537-13541, March 20, 1998, and at 63 FR 31361, June 9, 1998) and at 63 FR 44140-44143, August 18, 1998; and

(22) Title 40 CFR Part 63, Amendments to Subpart DD—National Emission Standards for Hazardous Air Pollutants form Off-Site Waste and Recovery Operations at 64 FR 38963-38985, July 20, 1999; and

(23) Title 40 CFR Part 63, Amendments to Subpart EE—National Emission Standards for Magnetic Tape Manufacturing Operations at 63 FR 17464, April 9, 1999; and

(24) Title 40 CFR Part 63, Amendments to Subpart GG—National Emission Standards for Hazardous Air Pollutants: Aerospace Manufacturing and Rework Facilities at 63 FR 46532-46535, September 1, 1998; and

(25) Title 40 CFR Part 63, Subpart HH—National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities and Appendix at 64 FR 32628-32647, June 17, 1999; and

(26) Title 40 CFR Part 63, Amendments to Subpart JJ—National Emissions Standards for Wood Furniture Manufacturing Operations at 63 FR 71380-71385, December 28, 1998; and

(27) Title 40 CFR Part 63, Amendments to Subpart OO—National Emission Standards for Tanks—Level 1 at 64 FR 38985-38987, July 20, 1999; and

(28) Title 40 CFR Part 63, Amendments to Subpart PP—National Emission Standards for Containers at 64 FR 38987-38988, July 20, 1999; and

(29) Title 40 CFR Part 63, Amendments to Subpart QQ—National Emission Standards for Surface Impoundments at 64 FR 38988-38989, July 20, 1999; and

(30) Title 40 CFR Amendments to Subpart RR—National Emission Standards for Individual Drain Systems at 64 FR 38989-91, July 20, 1999; and

(31) Title 40 CFR Part 63, Subpart SS—National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process at 64 FR 34866-34886, June 29, 1999; and

(32) Title 40 CFR Part 63, Subpart TT—National Emission Standards for Equipment Leaks—Control Level 1 at 64 FR 34886-34898, June 29, 1999; and

(33) Title 40 CFR Part 63, Subpart UU—National Emission Standards for Equipment Leaks—Control Level 2 Standards and Table 1 at 64 FR 34899-34918, June 29, 1999; and

(34) Title 40 CFR Part 63, Amendments to Subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators at 64 FR 38991-38992, July 20, 1999; and

(35) Title 40 CFR Part 63, Subpart WW—National Emission Standards for Storage Vessels (Tanks)—Control Level 2 at 64 FR 34918-34921, June 29, 1999; and

(36) Title 40 CFR Part 63, Subpart YY—National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards at 64 FR 34921-34949, June 29, 1999; and

(37) Title 40 CFR Part 63, Subpart CCC—National Emission Standards for Hazardous Air Pollutants for Steel Pickling—HCl Process Facilities and Hydrochloric Acid Regeneration Plants and Table 1 at 64 FR 33218-33223, June 22, 1999; and

(38) Title 40 CFR Part 63, Subpart DDD—National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production and Table 1 and Appendix A at 64 FR 29503-29510, June 1, 1999; and

(39) Title 40 CFR Part 63, Subpart GGG—National Emission Standards for Pharmaceuticals Production and Tables 1 through 9 at 63 FR 50326-50386, September 21, 1998; and

(40) Title 40 CFR Part 63, Subpart HHH—National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities and Appendix at 64 FR 32647-32664, June 17, 1999; and

(41) Title 40 CFR Part 63, Subpart III—National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Appendix at 63 FR 53996-54014, October 7, 1998; and

(42) Title 40 CFR Part 63, Amendments to Subpart JJJ—National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins at 64 FR 11547~~36~~-11554, March 9, 1999, and at 64 FR 30409, June 8, 1999 and at 64 FR 35028-29, June 30, 1999; and

(43) Title 40 CFR Part 63, Subpart LLL—National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry and Table 1 at 64 FR 31925-31937, June 14, 1999; and

(44) Title 40 CFR Part 63, Subpart MMM—National Emissions Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production and Tables 1, 2, 3, and 4 at 64 FR 33589-33633, June 23, 1999; and

(45) Title 40 CFR Subpart NNN—National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing and Table 1 and Appendices A, B and C at 64 FR 31708-31731, June 14, 1999; and

(46) Title 40 CFR Subpart PPP—National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production and Tables 1 through 8 at 64 FR 29439-29487, June 1, 1999; and

(47) Title 40 CFR Subpart TTT—National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting at 64 FR 30204-30208, June 4, 1999.

Rule 16.7. The words, phrases and terms defined in Title 40 Code of Federal Regulations Part 63, its subparts, and its appendices shall be used only for the purpose of interpreting and administering Rule 16 and shall not be used to otherwise alter or vary in any way the definitions provided in Section 4-2 of this chapter.

Rule 16.8. Where the term "Administrator" is used in the national emission standards for hazardous air pollutants for source categories, the term "Director of the Chattanooga-Hamilton County Air Pollution Control Bureau" shall be substituted for the purposes of this chapter, where appropriate, except at Title 40 Code of Federal Regulations Part 63.325(c), except at Title 40 Code of Federal Regulations Part 61.102(b); 61.104(a)(1)(xv); and 61.107(b)(3)(iv).

Rule 16.9. Reserved.

Rule 16.10. Maximum Achievable Control Technology Pollution Control Determinations

(a) *Applicability.* This rule applies to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants 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) of the Clean Air Act and promulgated in Title 40 Code of Federal Regulations Part 63, or unless the owner or operator of such major source has been issued all required air pollution control permits for such construction or reconstruction project before the effective date of this ordinance. Rule 16.10 does not apply to electric utility steam generating units. Rule 16.10 does not apply to stationary sources that are within the following source categories, which have been deleted from the source category list by promulgations pursuant to Section 112(c)(9) of the Clean Air Act: (1) asbestos processing area source category; 60 FR 61550-551 November 30, 1995 (2) Chromium chemicals manufacturing, lead acid battery manufacturing, non-stainless steel manufacturing--electric arc furnace operation; stainless steel manufacturing--electric arc furnace operation; and wood treatment; 61

FR 28200-02 June 4, 1996. Rule 16.10 does not apply to research and development activities, as defined in Rule 16.10(b).

(b) *Definitions*. Terms used in Rule 16.10 that are not defined in Rule 16.10(b) have the meaning given to them in Section 4-2.

(1) *Affected source* means the stationary source or group of stationary sources fabricated (on site), erected, or installed meets the definition of "construct a major source" or the definition of "reconstruct a major source" contained in Rule 16.10(b).

(2) *Affected States* are all States (1) Whose air quality may be affected and that are contiguous to Hamilton County, Tennessee, where a determination is made in accordance with Rule 16.10; or (2) Whose air quality may be affected and that are within 50 miles of the major source for which a determination is made in accordance with Rule 16.10.

(3) *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 determination made in accordance with Rule 16.10:

a. A relevant proposed regulation, including all supporting information;

b. Background information documents for a draft or proposed regulation;

c. Data and information available for the Control Technology Center developed pursuant to Section 113 of the Clean Air Act;

d. Data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;

e. Any additional information that can be expeditiously provided by the Administrator; and

f. For the purpose of determinations in accordance with Rule 16.10, any additional information provided by the applicant or others, and any additional information considered available by the Director.

(4) *Construct a major source* means:

a. 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 individual hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, or

b. 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 individual hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the process or production unit satisfies criteria in paragraphs b.1. through b.6. of this definition.

1. All hazardous air pollutants emitted by the process or production unit that would otherwise be controlled under the requirements of Rule 16.10 will be controlled by emission control equipment which was previously installed at the same site as the process or production unit; and

2. (i) The Director 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), lowest achievable emission rate (LAER) pursuant to Title 40 CFR Part 51 or Part 52, BACT for hazardous air pollutants based on the air pollution control ordinance for the category of pollutants which includes those hazardous air pollutants to be emitted by the process or production unit; or

   (ii) The Director determines that the control of hazardous air pollutant 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, LAER, or BACT for hazardous air pollutants determination); and

3. The Director determines that the percent control efficiency for emissions of hazardous air pollutants 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; and

4. The Director has provided notice and an opportunity for public comment concerning the determination that criteria described in Rule 16.10(b) definition of "construct a major source" described above apply and concerning the continued adequacy of any prior BACT, LAER, or BACT for hazardous air pollutants determination; and

5. If any commenter has asserted that a prior BACT, LAER, or BACT for hazardous air pollutants determination is no longer adequate, the Director has determined that the level of control required by that prior determination remains adequate; and

6. Any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by the Director are applicable requirements in accordance with Section 504(a) of the Clean Air Act and either have been incorporated into any existing Part 70 permit for the affected source or will be incorporated into any existing Part 70 permit for the affected source or will be incorporated into such permit upon issuance.

(5) *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 that:

a. Reduce the quantity of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications;

b. Enclose systems or processes to eliminate emissions;

c. Collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point;

d. Are design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in Section 112(h) of the Clean Air Act; or

e. Are a combination of paragraphs a. through d. of this definition.

(6) *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 cogenerates 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.

(7) *Greenfield site* means a contiguous area under common control that is an undeveloped site.

(8) *List of Source Categories* means the Source Category List required by Section 112(c) of the Clean Air Act.

(9) *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 Director or the Board, 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.

(10) *Notice of MACT Approval* means a document issued by the Director containing all federally enforceable conditions necessary to enforce the application and operation of MACT or other control technologies such that the MACT emission limitation is met.

(11) *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.

(12) *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 individual hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants, whenever:

a. 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

b. 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 Rule 16.10.

(13) *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 where such sales do not exceed 2% of the gross receipts of the source for which it is conducting the research and development.

(14) *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.

(c) *Prohibition*. After the effective date of this ordinance, no person may begin actual construction or reconstruction of a major source of hazardous air pollutants in this municipality 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) promulgated in Title 40 Code of Federal Regulations Part 63, which has been incorporated by reference in Chapter 4, 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--General Provisions of Part 63; or

(2) The Director or the Board has made a final and effective case-by-case determination pursuant to Rule 16.10 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.

(d) *Maximum Achievable Control Technology (MACT) Determinations for Constructed and Reconstructed Major Sources*.

(1) Applicability. The requirements of Rule 16.10 apply to an owner or operator who constructs or reconstructs a major source of one or more hazardous air pollutants subject to a case-by-case determination of maximum achievable control technology pursuant to Rule 16.10(c).

(2) Requirements for Constructed and Reconstructed Major Sources. When a case-by-case determination of MACT is required by Rule 16.10(c), the owner and operator shall obtain from the Director an approved MACT determination according to one of the review options contained in Rule 16.10(d)(3).

(3) Review Options.

a. When the Director requires the owner or operator to obtain, or revise, a permit issued pursuant to Article III. of Chapter 4 entitled Part 70 Source Regulation and Permits before construction or reconstruction of the major source, or when the Director allows the owner or operator at its discretion to obtain or revise such a permit before construction or reconstruction, and the owner or operator elects that option, the owner or operator shall follow the administrative procedures in Article III. Part 70 Source Regulation and Permits.

b. When an owner or operator is not required to obtain or revise a Part 70 Source Permit before construction or reconstruction, the owner or operator (unless the owner or operator voluntarily follows the process to obtain a Part 70 Permit) shall either, at the discretion of the Director:

1. Apply for and obtain a Notice of MACT Approval according to the procedures outlined in Rule 16.10 Rule 16.10(d)(6)-(8); or

2. Apply for a MACT determination under any other administrative procedures for preconstruction review and approval established by the Director or the Board which provide for public participation in the determination, and ensure that no person may begin actual construction or reconstruction of a major source in the City of Chattanooga unless the MACT emission limitation for new sources will be met.

c. When applying for a Part 70 Permit, an owner or operator may request approval of case-by-case MACT determinations for alternative operating scenarios. Approval of such determinations satisfies the requirements of Section 112(g) of the Clean Air Act of each such scenario.

d. Regardless of the review process, the MACT emission limitation and requirements established shall be effective as required by Rule 16.10(d)(10) consistent with the principles established in Rule 16.10(d)(4), and supported by the information listed in Rule 16.10(d)(5). The owner or operator shall comply with the requirements in Rule 16.10(d)(5) and with all applicable requirements in Title 40 CFR Part 63, Subpart A, which has been incorporated by reference in Chapter 4.

(4) 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 Board or Director:

a. The MACT emission limitation or MACT requirements recommended by the applicant and approved by the Board or Director shall not be less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the Board or Director.

b. Based upon available information, as defined in Rule 16.10, the MACT emission limitation and control technology (including any requirements under Rule 16.10(d)(4)c. recommended by the applicant and approved by the Board and Director shall achieve the maximum degree of reduction in emissions of hazardous air pollutants 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.

c. The applicant may recommend a specific design, equipment, work practice, or operational standard, or a combination thereof, and the Director may approve such a standard if the Director specifically determines that it is not feasible to prescribe or enforce an emission limitation under the criteria set forth in Section 112(h) of the Clean Air Act.

d. If the Administrator has either proposed a relevant emission standard pursuant to Section 112(d) or Section 112(h) of the Clean Air 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 take into consideration those MACT emission limitations and requirements of the proposed standard or presumptive MACT determination.

(5) <u>Application Requirements For a Case-By-Case MACT Determination</u>.

a. An application for a MACT determination [whether a Part 70 permit application, an application for a Notice of MACT Approval, or other document specified by the Board or Director under Rule 16.10(d)(3)b.2.] 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 Rule 16.10(d)(4).

b. 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:

1. The name and address (physical location) of the major source to be constructed or reconstructed;

2. 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;

3. The expected commencement date for the construction or reconstruction of the major source;

4. The expected completion date for construction or reconstruction of the major source;

5. The anticipated date of start-up for the constructed or reconstructed major source;

6. The hazardous air pollutants emitted by the constructed or reconstructed major source, and the estimated emission rate for each such hazardous air pollutant, to the extent this information is needed by the Board or the Director to determine MACT;

7. Any federally enforceable emission limitations applicable to the constructed or reconstructed major source;

8. 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 Board or the Director to determine MACT;

9. The controlled emissions for the constructed or reconstructed major source in tons/year at expected and maximum utilization of capacity, to the extent this information is needed by the Board or Director to determine MACT;

10. A recommended emission limitation for the constructed or reconstructed major source consistent with the principles set forth in Rule 16.10(d)(4);

11. 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 Board or the Director);

12. Supporting documentation including documentation 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

13. Any other relevant information required pursuant to Title 40 CFR Part 63, Subpart A, which has been incorporated by reference in Chapter 4.

c. 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 Rule 16.10 without a change in control technology, the application for a MACT determination shall contain the following information:

1. The information described in Rule 16.10(d)(5)b.1.-b.10.; and

2. Documentation of the control technology in place.

(6) Administrative Procedures for Review of the Notice of MACT Approval.

a. The Director will notify the owner or operator in writing, within 45 days after the date the application is first received, as to whether the application for a MACT determination is complete or whether additional information is required.

b. The Director will initially approve the recommended MACT emission limitation and other terms set forth in the application, or the Board or Director will notify the owner or operator in writing of its intent to disapprove the application, within 30 calendar days after the owner or operator is notified in writing that the application is complete.

c. The owner or operator may present, in writing, within 60 calendar days after receipt of notice of the Director's intent to disapprove the application, additional information or arguments pertaining to, or amendments to, the application for consideration by the Board or Director before it decides whether to finally disapprove the application.

d. The Director will either initially approve or issue a final disapproval of the application within 90 days after it notifies the owner or operator of an intent to disapprove or within 30 days after the date additional information is received from the owner or operator, whichever is earlier.

e. A final determination by the Director to disapprove any application will be in writing and will specify the grounds on which the disapproval is based. If any application is finally disapproved, the owner or operator may appeal to the Board or may submit a subsequent application concerning construction or reconstruction of the same major source, provided that the subsequent application has been amended in response to the stated grounds for the prior disapproval.

f. An initial decision to approve an application for a MACT determination will be set forth in the Notice of MACT Approval as described in Rule 16.10(d)(7).

(7) Notice of MACT Approval.

a. The notice of MACT Approval will contain a MACT emission limitation (or a MACT work practice standard if the Board or Director determines it is not feasible to prescribe or enforce an emission standard) to control the emissions of hazardous air pollutants. The MACT emission limitation or standard will be determined by the Board or Director and will conform to the principles set forth in Rule 16.10(d)(4).

b. The Notice of MACT Approval will specify any notification, operation and maintenance, performance testing, monitoring, reporting and record keeping requirements. The Notice of MACT Approval shall include:

1. In addition to the MACT emission limitation or MACT work practice standard established under Rule 16.10, additional emission limits, production limits, operational limits or other terms and conditions necessary to ensure practical enforceability of the MACT emission limitation;

2. Compliance certifications, testing, monitoring, reporting and record keeping requirements that are consistent with the requirements of §4-57;

3. In accordance with Section 114(a)(3) of the Clean Air 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 Rule 16.10, including emission limitations;

4. A statement requiring the owner or operator to comply with all applicable requirements contained in Title 40 CFR Part 63, Subpart A.

c. All provisions contained in the Notice of MACT Approval shall be practically enforceable upon the effective date of issuance of such notice, as provided by Rule 16.10(d)(10).

d. The Notice of MACT Approval shall expire if construction or reconstruction has not commenced within 18 months after issuance, unless the Board or Director has granted an extension, which shall not exceed an additional 12 months.

(8) Opportunity for Public Comment on the Notice of MACT Approval.

a. The Board or Director will provide opportunity for public comment on the Notice of MACT Approval, including, at a minimum:

1. Availability for public inspection in at least one location in the area affected of the information submitted by the owner or operator and of the Board or Director's initial decision to approve the application;

2. A 30-day period for submittal of public comment; and

3. A notice by prominent advertisement in the area affected of the location of the source information and initial decision specified in Rule 16.10(d)(8)a.1.

b. At the discretion of the Board or Director, the Notice of MACT Approval setting forth the initial decision to approve the application may become final automatically at the end of the comment period if no adverse comments are received. If adverse comments are received, the Board or Director shall have 30 days after the end of the comment period to make any necessary revisions in its analysis and decide whether to finally approve the application.

(9) EPA Notification. The Board or Director shall send a copy of the final Notice of MACT Approval, notice of approval of a Part 70 permit application 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 other notice of approval issued pursuant to Rule 16.10(d)(3)b.2. to the Administrator through the appropriate Regional Office, and to all other State air pollution control agencies having jurisdiction in affected States.

(10) Effective Date. The effective date of a MACT determination shall be the date the Notice of MACT Approval becomes final, the date of issuance of a Part 70 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 the date any other notice of approval issued pursuant to Rule 16.10(d)(3)b.2. of this section becomes final.

(11) Compliance date. On and after the date of start-up, a constructed or reconstructed major source which is subject to Rule 16.10 shall be in compliance with all applicable requirements specified in the MACT determination.

(12) Compliance with MACT determinations.

a. 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 Notice of MACT Approval, the Part 70 permit (in those instances where the owner or operator either is required or elects to obtain such a permit before construction or reconstruction), or any other final notice of approval issued pursuant to Rule 16.10(c)(3)b.2., 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.

b. 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 Clean Air Act only to the extent that the constructed or reconstructed major source is in compliance with all requirements set forth in the final Notice of MACT Approval, the Part 70 permit (in those instances where the owner or operator either is required or elects to obtain such a permit before construction or reconstruction), or any other final notice of approval issued pursuant to Rule 16.10(d)(3)b.2. Any violation of such requirements by the owner or operator shall be deemed to be a violation of the prohibition on construction or reconstruction in Section 112(g)(2)(B) 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 Clean Air Act.

(13) Reporting to the Administrator. Within 60 days after the issuance of a final Notice of MACT Approval, a Part 70 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 any other final notice of approval issued pursuant to Rule 16.10(d)(3)b.2., the Director shall provide a copy of such notice to the Administrator, and shall provide a summary in a compatible electronic format for inclusion in the MACT data base.

(e) *Requirements for Constructed or Reconstructed Major Sources Subject to a Subsequently Promulgated MACT Standard or MACT Requirement.*

(1) If the Administrator promulgated an emission standard under Section 112(d) or Section 112(h) of the Clean Air Act or the Board or Director issues a determination under Section 112(j) of the Clean Air Act that is applicable to a stationary source or group of sources which would be deemed to be a constructed or reconstructed major source under Rule 16.10 before the date that the owner or operator has obtained a final and legally effective MACT determination under

any of the review options available pursuant to Rule 16.10(d), the owner or operator of the source(s) shall comply with the promulgated standard or determination rather than any MACT determination under Section 112(g) of the Clean Air Act by the Board or Director, and the owner or operator shall comply with the promulgated standard by the compliance date in the promulgated standard.

(2) If the Administrator promulgates an emission standard under Section 112(d) or Section 112(h) of the Clean Air Act or the Board or Director makes a determination under Section 112(j) of the Clean Air Act that is applicable to a stationary source or group of sources which was deemed to be a constructed or reconstructed major source under Rule 16.10 and has been subject to a prior case-by-case MACT determination pursuant to Rule 16.10(d), 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 Board or Director shall (if the initial Part 70 permit has not yet been issued) issue an initial operating permit which incorporates the emission standard or determination, or shall (if the initial Part 70 permit has been issued) revise the operating permit according to the reopening procedures in Article III of Chapter 4, to incorporate the emission standard or determination.

a. If the Administrator has included in the emission standard established under Section 112(d) or Section 112(h) of the Clean Air Act a specific compliance date for those sources which have obtained a final and legally effective MACT determination under Rule 16.10 and which have submitted the information required by Rule 16.10(d) 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 Board or Director shall incorporate the applicable compliance date in the Part 70 permit.

b. If no compliance date has been established in the promulgated Section 112(d) or 112(h) standard or Section 112(j) determination, for those sources which have obtained a final and legally effective MACT determination under Rule 16.10, then the Board or Director 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 is made.

(3) Notwithstanding the requirements of paragraphs (1) and (2) above, if the Administrator promulgates an emission standard under Section 112(d) or Section 112(h) of the Clean Air Act or the Board or Director issues a determination under Section 112(j) of the Act that is applicable to a

stationary source or group of sources which was deemed to be a constructed or reconstructed major source under Rule 16.10 and which is the subject of a prior case-by-case MACT determination pursuant to Rule 16.10(d), 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) of the Act is less stringent than the level of control required by any emission limitation or standard in the prior MACT determination, the Board or Director is not required to incorporate any less stringent terms of the promulgated standard in the Part 70 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.

Rule 17. Emission Standard for Asbestos.

Title 40 Code of Federal Regulations Part 763, Appendix A to Subpart F--Interim Method of the Determinations of Asbestos in Building Insulation Samples (Revised as of July 1, 1993) is hereby incorporated by reference as a requirement of this municipality.

Rule 17.1. Definitions. All terms that are used in this rule and are not defined below are given the same meaning as in Section 4-2.

(1) *Active waste disposal site* means any disposal site other than an inactive site.

(2) *Adequately wet* means to sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wetted.

(3) *Asbestos* means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite.

(4) *Asbestos-containing waste materials* means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

(5) *Asbestos mill* means any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. outside storage of asbestos material is not considered a part of the asbestos mill.

(6) *Asbestos tailings* means any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

(7) *Asbestos waste from control devices* means any waste material that contains asbestos and is collected by a pollution control device.

(8) *Category I nonfriable asbestos-containing material (ACM)* means asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, Revised as of July 1, 1991, which is incorporated by reference as if fully set forth herein.

(9) *Category II nonfriable ACM* means any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light microscopy, Revised as of July 1, 1991, which is incorporated by reference as if fully set forth herein, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

(10) *Commercial asbestos* means any material containing asbestos that is extracted from ore and has value because of its asbestos content.

(11) *Cutting* means to penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing.

(12) *Demolition* means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

(13) *Emergency renovation operation* means a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment.

(14) *Fabricating* means any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.

(15) *Facility* means any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to Rule 16 is not excluded, regardless of its current use or function.

(16) *Facility component* means any part of a facility including equipment.

(17) *Friable asbestos material* means any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, Revised as of July 1, 1992, which is incorporated by reference as if fully set forth herein, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

(18) *Fugitive source* means any source of emissions not controlled by an air pollution control device.

(19) *Glove bag* means a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations. Information on glove-bag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rule on occupational exposure to asbestos (appendix G to 29 CFR 1926.58, Revised July 1, 1992).

(20) *Grinding* means to reduce to powder or small fragments and includes mechanical chipping or drilling.

(21) *In poor condition* means the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

(22) *Inactive waste disposal site* means any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year.

(23) *Installation* means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).

(24) *Leak-tight* means that solids or liquids cannot escape or spill out. It also means dust-tight.

(25) *Malfunction*, for the purposes of Rule 17, means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset condition, equipment breakdown, or process failure.

(26) *Manufacturing* means the combining of commercial asbestos--or, in the case of woven friction products, the combining of textiles containing commercial asbestos--with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

(27) *Natural barrier* means a natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

(28) *Nonfriable asbestos-containing material* means any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, Revised as of July 1, 1992, which is incorporated by reference as if fully set forth herein, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

(29) *Nonscheduled renovation operation* means a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.

(30) *Outside air* means the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.

(31) *Owner or operator of a demolition or renovation activity* means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.

(32) *Particulate asbestos material* means finely divided particles of asbestos or material containing asbestos.

(33) *Planned renovation operations* means a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

(34) *Regulated asbestos-containing material (RACM)* means (a) friable material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this Rule.

(35) *Remove* means to take out RACM or facility components that contain or are covered with RACM from any facility.

(36) *Renovation* means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component even if temporary. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

(37) *Resilient floor covering* means asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in appendix A, subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy, Revised July 1, 1992, which is incorporated by reference as if fully set forth herein.

(38) *Roadways* means surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

(39) *Strip* means to take off RACM from any part of a facility or facility components.

(40) *Structural member* means any load supporting member of a facility, such as beams and load supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

(41) *Visible emissions* means any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

(42) *Waste generator* means any owner or operator of a source covered by this Rule whose act or process produces asbestos-containing waste material.

(43) *Waste shipment record* means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

(44) *Working day* means Monday through Friday and includes holidays that fall on any of the days Monday through Friday.

Rule 17.2. Standard for asbestos mills.

(1) Each owner or operator of an asbestos mill shall either discharge no visible emissions to the outside air from that asbestos mill, including fugitive sources, or use the methods specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(2) Each owner or operator of an asbestos mill shall meet the following requirements:

a. Monitor each potential source of asbestos emissions from any part of the mill facility, including air cleaning devices, process equipment, and buildings that house equipment for material processing and handling, at least once a day, during daylight hours, for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.

b. Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunction, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this paragraph, submit to the Director, and revise as necessary, a written maintenance plan to include, at a minimum, the following:

1. Maintenance schedule.

2. Recordkeeping plan.

c. Maintain records of the results of visible emissions monitoring and air cleaning device inspections using a format similar to that shown in Figures 1 and 2 (copies of which shall be maintained in the office of the Chattanooga-Hamilton County Air Pollution Control Board) **OR** (attached hereto and incorporated herein by reference) and include the following:

1. Date and time of each inspection.

2. Presence or absence of visible emissions.

3. Condition of fabric filters, including presence of any tears, holes, and abrasions.

4. Presence of dust deposits on clean side of fabric filters.

5. Brief description of corrective actions taken, including date and time.

6. Daily hours of operation for each air cleaning device.

d. Furnish upon request, and make available at the affected facility during normal business hours for inspection by the Director, all records required under this Rule.

e. Retain a copy of all monitoring and inspection records for at least 2 years.

f. Submit quarterly a copy of visible emission monitoring records to the Director if visible emissions occurred during the report period. Quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.

Rule 17.3. Standard for roadways. No person may construct or maintain a roadway with asbestos tailings or asbestos-containing material on that roadway, unless, for asbestos tailings:

(1) It is a temporary roadway on an area of asbestos ore deposits (asbestos mine); or

(2) It is a temporary roadway at an active asbestos mill site and is encapsulated with a resinous or bituminous binder. The encapsulated road surface must be maintained at a minimum frequency of once per year to prevent dust emissions; or

(3) It is encapsulated in asphalt concrete meeting the specifications contained in section 401 of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-85, 1985, or their equivalent.

Rule 17.4. Standards for manufacturing.

(1) *Applicability.* This standard applies to the following manufacturing operations using commercial asbestos:

a. The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials;

b. The manufacture of cement products;

c. The manufacture of fireproofing and insulating materials;

d. The manufacture of friction products;

e. The manufacture of paper, millboard, and felt;

f. The manufacture of floor tile;

g. The manufacture of paints, coatings, caulks, adhesives, and sealants;

h. The manufacture of plastics and rubber materials;

i. The manufacture of chlorine utilizing asbestos diaphragm technology;

j. The manufacture of shotgun shell wads; and

k. The manufacture of asphalt concrete.

(2) *Standard.* Each owner or operator of any of the manufacturing operations to which Rule 17.4 applies shall:

a. Either discharge no visible emissions to the outside air from these operations or from any building or structure in which they are conducted or from any other fugitive sources; or

b. Use the methods specified by Rule 17.12 to clean emissions from these operations containing particulate asbestos material before they escape to, or are vented to, the outside air; and shall also

c. Monitor each potential source of asbestos emissions from any part of the manufacturing facility, including air cleaning devices, process equipment, and buildings housing material processing and handling equipment, at least once each day during daylight hours for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.

d. Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this paragraph, submit to the Director, and revise as necessary, a written maintenance plan to include, at a minimum, the following:

   1. Maintenance schedule; and

   2. Recordkeeping plan.

e. Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format similar to that shown in Figures 1 and 2 and include the following:

   1. Date and time of each inspection;

   2. Presence or absence of visible emissions;

   3. Condition of fabric filters, including presence of any tears, holes and abrasions;

   4. Presence of dust deposits on clean side of fabric filters;

   5. Brief description of corrective actions taken, including date and time; and

   6. Daily hours of operation for each air cleaning device.

f. Furnish, upon request, and make available at the affected facility during normal business hours for inspection by the Director or a representative of the Director, all records required under Rule 17.4.

g. Retain a copy of all monitoring and inspection records for at least 2 years.

h. Submit quarterly a copy of the visible emission monitoring records to the Director if visible emissions occurred during the reporting period. Quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.

Rule 17.5. Standard for demolition and renovation.

(1) *Applicability*. To determine which requirements of paragraphs (1), (2), and (3) of Rule 17.5 apply to the owner or operator of a demolition or renovation activity and prior to the commencement of the demolition or renovation, the owner or operator shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. Any asbestos survey conducted by or for the owner or operator to determine the applicability of Rule 17.5 shall be conducted by a qualified person who has complied with the training requirements of paragraph (3)h. The requirements of paragraphs (2) and (3) of Rule 17.5 apply to each owner or operator of a demolition or renovation activity, including the removal of RACM as follows:

a. In a facility being demolished, all the requirements of paragraphs (2) and (3) of this section apply, except as provided in paragraph (1)(c) of Rule 17.5, if the combined amount of RACM is

1. At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components, or

2. At least 1 cubic meter (35 cubic feet) removed from facility components where the length or area could not be measured previously.

b. In a facility being demolished, only the notification requirements of paragraphs (2)a., (2)b., (2)c.,1. and 4., and (2)d.1. through 7. and 9. through 16. of Rule 17.5 apply, if the combined amount of RACM is

1. Less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components, and

2. Less than one cubic meter (35 cubic feet) removed from facility components where the length or area could not be measured previously or there is no asbestos.

These notification requirements apply to all demolition projects, even if no RACM has been identified by the owner or operator.

c. If the facility is being demolished under an order of a State or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse, only the requirements of paragraphs (2)a., (2)b., (2)c.3, (2)d. (except (2)d.8), and (3)d. through i. of Rule 17.5 apply.

d. In a facility being renovated, including any individual nonscheduled renovation operation, all the requirements of paragraphs (2) and (3) of Rule 17.5 apply if the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is

1. At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on facility components, or

2. At least 1 cubic meter (35 cubic feet) removed from facility components where the length or area could not be measured previously.

3. To determine whether paragraph (1)d. of Rule 17.5 applies to planned renovation operations involving individual nonscheduled operations, predict the combined additive amount of RACM to be removed or stripped during a calendar year of January 1 through December 31.

4. To determine whether paragraph (1)d. of Rule 17.5 applies to emergency renovation operations, estimate the combined amount of RACM to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.

(2) *Notification requirements.* Each owner or operator of a demolition or renovation activity to which Rule 17.5 applies shall:

a. Provide the Director with written notice of intention to demolish or renovate on a form specified by the Director and available from the Bureau. Facsimile transmission is not acceptable. In addition, Section 4-8(f) contains requirements for building demolition or renovation permits and related permit fees, including requirements applicable to all demolition projects and to certain renovation projects.

b. Update the notice, as necessary, including when the amount of asbestos affected changes by at least 20 percent.

c. Assure receipt by the Director of the original written notice as follows:

1. At least 10 working days before asbestos stripping or removal work or any other activity begins (such as site preparation that would break up, dislodge or similarly disturb asbestos material), if the operation is described in paragraphs (1)a. and d. (except (1)d.3. and (1)d.4.) of Rule 17.5.

2. At least 10 working days before any demolition operation described in paragraph (1)b. begins.

3. At least 10 working days before the end of the calendar year preceding the year for which notice is being given for renovations described in paragraph (I)d.3. of Rule 17.5.

4. As early as possible before, but not later than the following working day, if the operation is a demolition according to paragraph (1)c. of Rule 17.5 or, if the operation is a renovation described in paragraph (1)d.4. of Rule 17.5.

5. For asbestos stripping or removal work in a demolition or renovation operation, described in paragraphs (1)a. or d. (except (1)d.3. and (1)d.4.) of Rule 17.5, and for a demolition described in paragraph (1)(b) of Rule 17.5, that will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Director as follows:

(i) when the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin after the date contained in the notice,

(A) Notify the Director of the new start date by telephone as soon as possible before the original start date, and

(B) Provide the Director with an original written notice of the new start date as soon as possible before, and no later than, the original start date. Facsimile transmission is not acceptable.

(ii) When the asbestos stripping or removal operation or demolition operation covered by Rule 17.5 will begin on a date earlier than the original start date,

(A) Provide the Director with an original written notice of the new start date at least 10 working days before asbestos stripping or removal work begins. Facsimile transmission is not acceptable.

(B) For demolitions covered by paragraph (1)b. of Rule 17.5, provide the Director an original written notice of a new start date at least 10 working days before commencement of demolition. Facsimile transmission is not acceptable.

(iii) In no event shall an operation covered by Rule 17.5 begin on a date other than the date contained in the written notice of the new start date.

d. Include the following in the notice:

1. An indication of whether the notice is the original or a revised notification;

2. Name, address, and telephone number of both the facility owner and operator and the asbestos removal contractor or operator;

3. Type of operation: demolition or renovation;

4. Description of the facility or affected part of the facility including the size (square meters [square feet] and number of floors), age, and present and prior use of the facility;

5. Procedure, including analytical methods, employed to detect the presence of RACM and Category I and Category II nonfriable ACM;

6. Estimate of the approximate amount of RACM to be removed from the facility in terms of length of pipe in linear meters (linear feet), surface area in square meters (square feet) on other facility components, or volume in cubic meters (cubic feet) if off the facility components. Also, estimate the approximate amount of Category I and

Category II nonfriable ACM in the affected part of the facility that will not be removed before demolition;

7. Location and street address (including city and building number or name and floor or room number, if appropriate) of the facility being demolished or renovated;

8. Scheduled starting and completion dates of asbestos work (or any other activity, such as site preparation that would break up, dislodge, or similarly disturb asbestos material) in a demolition or renovation; planned renovation operations involving individual nonscheduled operations shall only include the beginning and ending dates of the report period as described in paragraph (1)d.3. of Rule 17.5;

9. Scheduled starting and completion dates of demolition or renovation;

10. Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used, and description of affected facility components;

11. Description of work practices and engineering controls to be used to comply with the requirements of Rule 17.5, including asbestos removal and waste-handling emission control procedures;

12. Name and location of the waste disposal site where the asbestos-containing waste material will be deposited;

13. On and after January 1, 1993, a certification that at least one person trained as required by paragraph (3)h. of Rule 17.5 will supervise the stripping and removal described by this notification;

14. For facilities described in paragraph (1)c. of Rule 17.5, the name, title, and authority of the State or local government representative who has ordered the demolition, the date that the order was issued, and the date on which the demolition was ordered to begin or was ordered to be completed. A copy of the order shall be attached to the notification;

15. For emergency renovations described in paragraph (1)d.4. of Rule 17.5, the date and hour that the emergency occurred, a description of the sudden, unexpected event, and an explanation of how the event caused an unsafe condition, or would cause equipment damage or an unreasonable financial burden;

16. Description of procedures to be followed in the event that unexpected RACM is found or Category II nonfriable ACM becomes crumbled, pulverized, or reduced to powder; and

17. Name, address, and telephone number of the waste transporter.

(3) *Procedures for asbestos emission control*. Each owner or operator of a demolition or renovation activity to whom Rule 17.5 applies, according to paragraph (1) of Rule 17.5, shall comply with the following procedures:

a. Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. RACM need not be removed before demolition if:

1. It is Category I nonfriable ACM that is not in poor condition and is not friable;

2. It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever expected during demolition;

3. It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos-contaminated debris must be treated as asbestos-containing waste material and adequately wet at all times until disposed of; or

4. It is Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition.

b. When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections:

1. Adequately wet all RACM exposed during cutting or disjoining operations; and

2. Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing the RACM.

c. When RACM is stripped from a facility component while it remains in place in the facility, adequately wet the RACM during the stripping operation.

1. In renovation operations, wetting is not required if:

(i) The owner or operator has obtained prior written approval from the Director based on a written application that wetting to comply with this paragraph would unavoidably damage equipment or present a safety hazard; and

(ii) The owner or operator uses one of the following emission control methods:

(A) A local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the asbestos materials. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in Rule 17.12;

(B) A glove-bag system designed and operated to contain particulate asbestos material produced by the stripping of the materials; or

(C) Leak-tight wrapping to contain all RACM prior to dismantlement.

2. In renovation operations where wetting would result in equipment damage or a safety hazard, and the methods allowed in paragraph (3)c.l. of Rule 17.5 cannot be used, another method may be used after written approval from the Director based upon a determination that it is equivalent to wetting in controlling emissions or to the methods allowed in paragraph (3)c.1. of Rule 17.5.

3. A copy of the Director's written approval shall be kept at the worksite and made available for inspection.

d. After a facility component covered with, coated with, or containing RACM has been taken out of the facility as a unit or in sections pursuant to paragraph (3)b. of Rule 17.5, it shall be stripped or contained in leak-tight wrapping, except as described in paragraph (3)e. of Rule 17.5. If stripped, either:

1. Adequately wet the RACM during stripping; or

2. Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in Rule 17.12.

e. For large facility components such as reactor vessels, large tanks, and steam generators, but not beams (which must be handled in accordance with paragraphs (3)b., c., and d. of Rule 17.5), the RACM is not required to be stripped if the following are met:

1. The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM;

2. The component is encased in a leak-tight wrapping; and

3. The leak-tight wrapping is labeled according to Rule 17.9 (4)a.1., and 3. during all loading and unloading operations and during storage.

f. For all RACM, including material that has been removed or stripped:

1. Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with Rule 17.10;

2. Carefully lower the material to the ground and floor, not dropping, throwing, sliding, or damaging or disturbing the material;

3. Transport the material to the ground via leak-tight chutes or containers if it has been removed or stripped more than 50 feet above ground level and was not removed as units or in sections;

4. RACM contained in leak-tight wrapping that has been removed in accordance with paragraphs (3)d. and (3)c.1.(ii)(c) of Rule 17.5 need not be wetted.

g. When the temperature at the point of wetting is below 0º C (32º F):

1. The owner or operator need not comply with paragraph (3)b.1. and the wetting provisions of paragraph (3)c. of Rule 17.5.

2. The owner or operator shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.

3. During periods when wetting operations are suspended due to freezing temperatures, the owner or operator must record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for inspection by the Director during normal business hours at the demolition or renovation site. The owner or operator shall retain the records for at least 2 years.

h. On and after January 1, 1993, no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by Rule 17.5 unless at least one on-site representative, such as a foreman or management-level person or other authorized representative, trained in the provisions of Rule 17.5 and the means of complying with them, is present. Every 2 years, the trained on-site individual shall receive refresher training in the provisions of Rule 17.5. The required training shall include as a minimum: applicability; notifications; material identification; control procedures for removals including, at least, wetting, local exhaust ventilation, negative pressure enclosures, glove-bag procedures, and High Efficiency Particulate Air (HEPA) filters; waste disposal work practices; reporting and recordkeeping; and asbestos hazards and worker protection. Evidence that the required training has been completed shall be posted and made available for inspection by the Director at the demolition or renovation site.

i. For facilities described in paragraph (1)c. of Rule 17.5, adequately wet the portion of the facility that contains RACM during the operation.

j. If a facility is demolished by intentional burning, all RACM including Category I and Category II nonfriable ACM must be removed in accordance with Rule 17.5 before burning.

Rule 17.6. Standard for spraying. The owner or operator of an operation in which asbestos-containing materials are spray applied shall comply with the following requirements:

(1) For spray-on application on buildings, structures, pipes, and conduits, do not use material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, Revised July 1, 1992, which is incorporated by reference as if fully set forth herein, except as provided in paragraph (3) of Rule 17.6.

(2) For spray-on application of materials that contain more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, Revised July 1, 1992, which is incorporated by reference as if fully set forth herein, on equipment and machinery, except as provided in paragraph (3) of Rule 17.6:

a. Notify the Director at least 20 days before beginning the spraying operation. Include the following information in the notice:

1. Name and address of owner or operator;

2. Location of spraying operation;

3. Procedures to be followed to meet the requirements of this paragraph.

b. Discharge no visible emissions to the outside air from spray-on application of the asbestos-containing material or use the methods specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(3) The requirements of paragraphs (1) and (2) of Rule 17.6 do not apply to the spray-on application of materials where the asbestos fibers in the materials are encapsulated with a bituminous or resinous binder during spraying and the materials are not friable after drying.

Rule 17.7. Standards for fabricating.

(1) *Applicability.* This rule applies to the following fabricating operations using commercial asbestos:

a. The fabrication of cement building products;

b. The fabrication of friction products, except those operations that primarily install asbestos friction materials on motor vehicles; and

c. The fabrication of cement or silicate board for ventilation hoods; ovens; electrical panels; laboratory furniture, bulkheads, partitions, and ceilings for marine construction; and flow control devices for the molten metal industry.

(2) *Standard.* Each owner or operator of any of the fabricating operations to which Rule 17.7 applies shall either:

a. Either discharge no visible emissions to the outside air from any of the operations or from any building or structure in which they are conducted or from any other fugitive sources; or

b. Use the methods specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and shall also

c. Monitor each potential source of asbestos emissions from any part of the fabricating facility, including air cleaning devices, process equipment, and buildings that house equipment for material processing and handling, at least once each day, during daylight hours, for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 second duration per source of emissions.

d. Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this paragraph, submit to the Director, and revise as necessary, a written maintenance plan to include, at a minimum, the following:

1. Maintenance schedule; and

2. Recordkeeping plan.

e. Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format similar to that shown in Figures 1 and 2 and include the following:

1. Date and time of each inspection;

2. Presence or absence of visible emissions;

3. Condition of fabric filters, including presence of any tears, holes, and abrasions;

4. Presence of dust deposits on clean side of fabric filters;

5. Brief description of corrective actions taken, including date and time; and

6. Daily hours of operation for each air cleaning device.

f. Furnish upon request and make available at the affected facility during normal business hours for inspection by the Director, all records required under Rule 17.7.

g. Retain a copy of all monitoring and inspection records for at least 2 years.

h. Submit quarterly a copy of the visible emission monitoring records to the Director if visible emissions occurred during the report period. Quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.

Rule 17.8. Standard for insulating materials. No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of Rule 17.8 do not apply to spray-applied insulating materials regulated under Rule 17.6.

Rule 17.9. Standard for waste disposal for asbestos mills. Each owner or operator of any source covered under the provisions of Rule 17.2 shall:

(1) Deposit all asbestos-containing waste material at a waste disposal site operated in accordance with the provisions of Rule 17.14; and

(2) Discharge no visible emissions to the outside air from the transfer of control device asbestos waste to the tailings conveyor, or use the method specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air. Dispose of the asbestos waste from control devices in accordance with Rule 17.10 or paragraph (3) of Rule 17.9; and

(3) Discharge no visible emissions to the outside air during the collection, processing, packaging, or on-site transporting of any asbestos-containing waste material, or use one of the disposal methods specified in paragraphs (3)a. or b. of Rule 17.9, as follows:

a. Use a wetting agent as follows:

1. Adequately mix all asbestos-containing waste material with a wetting agent recommended by the manufacturer of the agent to effectively wet dust and tailings, before depositing the material at a waste disposal site. Use the agent as recommended for the particular dust by the manufacturer of the agent.

2. Discharge no visible emissions to the outside air from the wetting operation or use the methods specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

3. Wetting may be suspended when the ambient temperature at the waste disposal site is less than -9.5? C (15? F), as determined by an appropriate measurement method with an accuracy of +/- 1 degree C (+/- 2 degrees F). During periods when wetting operations are suspended, the temperature must be recorded at least at hourly intervals, and records must be retained for at least 2 years in a form suitable for inspection.

b. Use an alternative emission control and waste treatment method that has received prior written approval by the Administrator of the U.S. Environmental Protection Agency pursuant to 40 CFR 61.149(c)(2). The owner or operator shall provide the Director with a photocopy of the written approval. To obtain approval for an alternative method, a written application must be submitted to the Director demonstrating that the following criteria are met:

1. The alternative method will control asbestos emissions equivalent to currently required methods;

2. The suitability of the alternative method for the intended application;

3. The alternative method will not violate other regulations; and

4. The alternative method will not result in increased water pollution, land pollution, or occupational hazards.

(4) When waste is transported by vehicle to a disposal site:

a. Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of the waste so that the signs are visible. The markings must:

1. Be displayed in such a manner and location that a person can easily read the legend;

2. Conform to the following requirements for 51 cm x 36 cm (20 in x 14 in) upright format signs:

Caution signs. Standard color of the background shall be yellow; and the panel, black with yellow letters. Any letters used against the yellow background shall be black. The colors shall be those of opaque glossy samples as specified in Table 1 of American National Standard Z53.1-1967; and

3. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in Rule 17.9.

Legend	*Notation*
DANGER	2.5 cm (1 inch) Sans Serif Gothic or Block
ASBESTOS DUST HAZARD	2.5 cm (1 inch) Sans Serif Gothic or Block
CANCER AND LUNG DISEASE HAZARD	1.9 cm (3/4 inch) Sans Serif Gothic or Block
Authorized Personnel Only	14 point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

b. For off-site disposal, provide a copy of the waste shipment record, described in paragraph (5)a. of Rule 17.9, to the disposal site owner or operator at the same time as the asbestos-containing waste material is delivered to the disposal site.

(5) For all asbestos-containing waste material transported off the facility site:

a. Maintain asbestos waste shipment records, using a form similar to that shown in Figure 3 (a copy of which may be obtained from the Chattanooga-Hamilton County Air Pollution Control Board) OR (a copy of which is attached hereto and incorporated herein by reference), and include the following information:

1. The name, address, and telephone of the waste generator;

2. The name and address of the local, State, or EPA Regional agency responsible for administering the asbestos NESHAP program;

3. The quantity of the asbestos-containing material in cubic meters (cubic yards);

4. The name and telephone number of the disposal site operator;

5. The name and physical site location of the disposal site;

6. The date transported;

7. The name, address, and telephone number of the transporter(s); and

8. A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

b. For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.

c. Report in writing to the Director and also to any other officer or agency where required by local, state, or federal law covering the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. Include in the report the following information:

1. A copy of the waste shipment record for which a confirmation of delivery was not received, and

2. A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

d. Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

(6) Furnish upon request, and make available for inspection by the Director, all records required under Rule 17.9.

Rule 17.10. Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations. Each owner or operator of any source covered under the provisions of Rules 17.4, 17.5, 17.6, and 17.7 shall comply with the following provisions:

(1) Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any asbestos-containing waste material generated by the source, or use one of the emission control and waste treatment methods specified in paragraphs (1)a. through d. of Rule 17.10.

a. Adequately wet asbestos-containing waste material as follows:

1. Mix control device asbestos waste to form a slurry; adequately wet other asbestos-containing waste material; and

2. Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations, or use the methods specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

3. After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; or, for materials that will not fit into containers without additional breaking, put materials into leak-tight wrapping; and

4. Label the containers or wrapped materials specified in paragraphs (1)a.3. of Rule 17.10 using warning labels specified by Occupational Safety and Health Standards of the Department of Labor, occupational Safety and Health Administration under 29 CFR 1910.1001(j)(2) or 1926.58(k)(2)(iii). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.

5. For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.

b. Process asbestos-containing waste material into nonfriable forms as follows:

1. Form all asbestos-containing waste material into nonfriable pellets or other shapes;

2. Discharge no visible emissions to the outside air from collection and processing operations, including incineration, or use the method specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

c. For facilities demolished where the RACM is not removed prior to demolition according to Rule 17.5(3)a.1., 2., 3., and 4. or for facilities demolished according to Rule 17.5(3)i., adequately wet asbestos-containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site. Asbestos-containing waste materials covered by Rule 17.10 do not have to be sealed in leak-tight containers or wrapping but may be transported and disposed of in bulk.

d. Use an alternative emission control and waste treatment method that has received prior approval by the Administrator of the U.S. Environmental Protection Agency pursuant to 40 CFR 61.150(a)(4) according to the procedure described in Rule 17.9(3)b. The owner or operator shall provide the Director with a photocopy of the written approval.

e. As applied to demolition and renovation, the requirements of paragraph (1) of Rule 17.10 do not apply to Category I nonfriable ACM waste and Category II nonfriable ACM waste that did not become crumbled, pulverized, or reduced to powder.

(2) All asbestos-containing waste material shall be deposited as soon as is practical by the waste generator at:

a. A waste disposal site operated in accordance with the provisions of Rule 17.14 or

b. An EPA-approved site that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material according to the provisions of Rule 17.15.

c. The requirements of paragraph (2) of Rule 17.10 do not apply to Category I nonfriable ACM that is not RACM.

(3) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of waste so that the signs are visible. The markings must conform to the requirements of Rule 17.9(4)a.1., 2., and 3.

(4) For all asbestos-containing waste material transported off the facility site:

a. Maintain waste shipment records, using a form similar to that shown in Figure 3, and include the following information:

1. The name, address, and telephone number of the waste generator;

2. The name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program;

3. The approximate quantity in cubic meters (cubic yards);

4. The name and telephone number of the disposal site operator;

5. The name and physical site location of the disposal site;

6. The date transported;

7. The name, address, and telephone number of the transporter; and

8. A certification under oath that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

b. Provide a copy of the waste shipment record, described in paragraph (4)a. of Rule 17.10, to the disposal site owners or operators at the same time as the asbestos-containing waste material is delivered to the site.

c. For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the

transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.

d. Report in writing to the Director and also to any other officer or agency where required by local, state, or federal law covering the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. Include in the report the following information:

1. A copy of the waste shipment record for which a confirmation of delivery was not received, and

2. A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

e. Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

(5) Furnish upon request, and make available for inspection by the Director, all records required under Rule 17.10.

Rule 17.11. Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations. Each owner or operator of any inactive waste disposal site that was operated by sources covered under Rules 17.2, 17.4, or 17.7 and received deposits of asbestos-containing waste material generated by the sources, shall:

(1) Comply with one of the following:

a. Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or

b. Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In any chert area where vegetation is impossible to maintain, at least 8 additional centimeters (3 inches) of well-graded, nonasbestos crushed rock may be placed on top of the chert and maintained to prevent emissions; or

c. Cover the asbestos-containing waste with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent the exposure of the asbestos-containing waste; or

d. For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs (1)a., b., and c. of Rule 17.11. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. obtain prior written approval of the Director to use other equally effective dust suppression agents. For purposes of Rule 17.11, any used, spent, or other waste oil is not considered a dust suppression agent.

(2) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (1)b. or (1)c. of Rule 17.11.

a. Display warning signs at all entrances and at intervals of 100 m (328 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

1. Be posted in such a manner and location that a person can easily read the legend; and

2. Conform to the following requirements for 51 cm x 36 cm (2011 x 1411) upright format: signs specified in 29 CFR 1910.145(d);

Caution signs. Standard color of the background shall be yellow; and the panel, black with yellow letters. Any letters used against the yellow background shall be black. The colors shall be those of opaque glossy samples as specified in Table 1 of American National Standard Z53.1-1967; and

3. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	*Notation*
ASBESTOS WASTE DISPOSAL SITE	2.5 cm (1 inch) Sans Serif Gothic or Block

DO NOT CREATE DUST	1.9 cm (3/4 inch) Sans Serif Gothic or Block
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH	14 point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

b. Fence the perimeter of the site in a manner adequate to deter access by the general public.

c. When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Director to determine whether a fence or a natural barrier adequately deters access by the general public.

(3) The owner or operator may use an alternative control method that has received prior approval of the Administrator of the U.S. Environmental Protection Agency pursuant to 40 CFR 61.151(c) rather than comply with the requirements of paragraph (1) or (2) of Rule 17.11. The owner or operator shall provide the Director with a photocopy of the written approval.

(4) Notify the Director in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under Rule 17.11, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Director at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

a. Scheduled starting and completion dates;

b. Reason for disturbing the waste;

c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Director may require changes in the emission control procedures to be used; and

d. Location of any temporary storage site and the final disposal site.

(5) On or before the site becomes inactive, record, in accordance with State law, an instrument in the chain of title of the facility property that would normally be examined in a title search, that will in perpetuity notify any potential purchaser of the property that:

a. The land has been used for the disposal of asbestos-containing waste material;

b. The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in Rule 17.14(6) have been filed with the Director; and

c. The site is subject to 40 CFR part 61, subpart M.

Rule 17.12. Air cleaning.

(1) The owner or operator who uses air cleaning, as specified in Rules 17.2(1); 17.4(2)b.; 17.5(3)c.1.(ii)(A); 17.5(3)d.2.; 17.6(2)b.; 17.7(2)b.; 17.9(2); 17.9(3)a.2.; 17.10(1)a.2.; 17.10(1)b.2.; and 17.15(5) shall:

a. Use fabric filter collection devices, except as noted in paragraph (b) of Rule 17.12, doing all of the following:

1. Ensuring that the airflow permeability, as determined by ASTM Method D737-75, does not exceed 9 $m^3/min/m^2$ (30 $ft^3/min/ft^2$) for woven fabrics or $11^3/min/m^2$ (35 $ft^3/min/ft^2$) for felted fabrics, except that 12 $m^3/min/m^2$ (40 $ft^3/min/ft^2$) for woven and 14 $m^3/min/m^2$ (45 $ft^3/min/ft^2$) for felted fabrics is allowed for filtering air from asbestos ore dryers; and

2. Ensuring that felted fabric weighs at least 475 grams per square meter (14 ounces per square yard) and is at least 1.6 millimeter (one-sixteenth inch) thick throughout; and

3. Avoiding the use of synthetic fabrics that contain fill yarn other than that which is spun.

b. Properly install, use, operate, and maintain all air-cleaning equipment authorized by Rule 17.12. Bypass devices may be used only during upset or emergency conditions

and then only for so long as it takes to shut down the operation generating the particulate asbestos material.

c. For fabric filter collection devices, provide for easy inspection for faulty bags.

(2) There are the following exceptions to paragraph (1)a.:

a. If the use of fabric creates a fire or explosion hazard, or the Director determines that a fabric filter is not feasible, the Director may authorize as a substitute the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals (40 inches water gage pressure).

b. Use a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles.

c. The Administrator of the U.S. Environmental Protection Agency pursuant to 40 CFR 61.152(b)(3) may authorize the use of filtering equipment other than described in paragraphs (1)a. and (2)a. and b. of Rule 17.13 if the owner or operator demonstrates to the Administrator's satisfaction that it is equivalent to the described equipment in filtering particulate asbestos material. The owner or operator shall provide the Director with a photocopy of the written authorization.

Rule 17.13. Reporting.

(1) Any new source to which Rule 17 applies (with the exception of sources subject to Rules 17.3, 17.5, 17.6, and 17.8) which has an initial startup date preceding the effective date of this revision, shall provide the following information to the Director delivered within 90 days of the effective date. In the case of a new source that does not have an initial startup date preceding the effective date, the information shall be delivered within 90 days of the initial startup date. Any owner or operator of an existing source shall deliver the following information to the Director within 90 days of the effective date of this subpart unless the owner or operator of the existing source has previously provided this information to the Director. Any changes in the information provided by any existing source shall be delivered to the Director within 30 days after the change. Facsimile transmission is not acceptable.

a. A description of the emission control equipment used for each process; and

1. If the fabric device uses a woven fabric, the airflow permeability in $m^3/min/m^2$ and; if the fabric is synthetic, whether the fill yarn is spun or not spun; and

2. If the fabric filter device uses a felted fabric, the density in g/m^2, the minimum thickness in inches, and the airflow permeability in $m^3/min/m^2$.

b. If a fabric filter device is used to control emissions,

1. The airflow permeability in $m^3/min/m^2$ ($ft^3/min/ft^2$) if the fabric filter device uses a woven fabric, and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and

2. If the fabric filter device uses a felted fabric, the density in g/m^2 (oz/yd^2), the minimum thickness in millimeters (inches), and the airflow permeability in $m^3/min/m^2$ ($ft^3/min/ft^2$).

c. If a HEPA filter is used to control emissions, the certified efficiency.

d. For sources subject to Rules 17.9 and 17.10:

1. A brief description of each process that generates asbestos-containing waste material; and

2. The average volume of asbestos-containing waste material disposed of, measured in m^3/day (yd^3/day); and

3. The emission control methods used in all stages of waste disposal; and

4. The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.

e. For sources subject to Rules 17.11 and 17.14:

1. A brief description of the site; and

2. The method or methods used to comply with the standard, or alternative procedures to be used.

(2) The information required by Rule 17.13(1) must accompany the information submitted to the Administrator of U.S. EPA pursuant to 40 CFR 61.10, Revised July 1, 1992. Active waste

disposal sites subject to Rule 17.14 shall also comply with this provision. The information described in Rule 17.13 must be reported using the format required by the Bureau.

Rule 17.14. Standard for active waste disposal sites. Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under Rules 17.9, 17.10, or 17.15 shall meet the requirements of this rule:

(1) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (3) or (4) of Rule 17.14 must be met.

(2) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (3)a. of Rule 17.14 must be met.

a. Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

1. Be posted in such a manner and location that a person can easily read the legend; and

2. Conform to the requirements of 51 cm x 36 cm (2011 x 1411) upright format signs:

Caution signs. Standard color of the background shall be yellow; and the panel, black with yellow letters. Any letters used against the yellow background shall be black. The colors shall be those of opaque glossy samples as specified in Table 1 of American National Standard Z53.1-1967; and

3. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in Rule 17.14.

Legend	*Notation*
ASBESTOS WASTE DISPOSAL SITE	2.5 cm (1 inch) Sans Serif Gothic or Block
DO NOT CREATE DUST	1.9 cm (3/4 inch) Sans

Serif Gothic or Block

BREATHING ASBESTOS IS 14 point Gothic
HAZARDOUS TO
YOUR HEALTH

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

b. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

c. Upon request and supply of appropriate information, the Director will determine whether a fence or a natural barrier adequately deters access by the general public.

(3) Rather than meet the no visible emission requirement of paragraph (1) of Rule 17.14, at the end of each operating day, or at least once every 24-hour period while the site is in operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

a. Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or

b. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Director. For the purposes of Rule 17.14, any used, spent, or other waste oil is not considered a dust suppression agent.

(4) Rather than meet the no visible emission requirement of paragraph (1) of Rule 17.14, use an alternative emissions control method that has received prior written approval by the Administrator of the U.S. Environmental Protection Agency pursuant to 40 CFR 61.154(d) according to the procedures described in Rule 17.9(3)b. The owner or operator shall provide the Director with a photocopy of the written approval.

(5) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:

a. Maintain waste shipment records, using a form similar to that shown in Figure 3, and include the following information:

1. The name, address, and telephone number of the waste generator;

2. The name, address, and telephone number of the transporter(s);

3. The quantity of the asbestos-containing waste material in cubic meters (cubic yards);

4. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the Director and also to any other officer or agency where required by local, state or federal law covering the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report; and

5. The date of the receipt.

b. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

c. Upon discovering a discrepancy between the quantity of waste designated in the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the Director and also to any other officer or agency where required by local, state, or federal law covering the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

d. Retain a copy of all records and reports required by this paragraph for at least 2 years.

(6) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.

(7) Upon closure, comply with all the provisions of Rule 17.11.

(8) Submit to the Director, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

(9) Furnish upon request, and make available during normal business hours for inspection by the Director, all records required under Rule 17.14.

(10) Notify the Director in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Director at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

a. Scheduled starting and completion dates;

b. Reason for disturbing the waste;

c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used; and

d. Location of any temporary storage site and the final disposal site.

Rule 17.15. Standard for operations that convert asbestos-containing waste material into nonasbestos (asbestos-free) material. Each owner or operator of an operation that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material shall:

(1) Obtain the prior written approval of the Administrator of the U.S. Environmental Protection Agency pursuant to 40 CFR 61.155(a) to construct the facility. The owner or operator shall provide the Director with a photocopy of the written approval. To obtain approval, the owner or operator shall provide the Administrator with the following information:

a. Application to construct pursuant to Section 4-840 CFR 61.07.

b. In addition to the information requirements of 40 CFR 61.07(b)(3), a

1. Description of waste feed handling and temporary storage.

2. Description of process operating conditions.

3. Description of the handling and temporary storage of the end product.

4. Description of the protocol to be followed when analyzing output materials by transmission electron microscopy.

c. Performance test protocol, including provisions for obtaining information required under paragraph (2) of Rule 17.15.

d. The Administrator of the U.S. Environmental Protection Agency may require that a demonstration of the process be performed prior to approval of the application to construct.

(2) Conduct a start-up performance test. Test results shall include:

a. A detailed description of the types and quantities of nonasbestos material, RACM, and asbestos-containing waste material processed, e.g., asbestos cement products, friable asbestos insulation, plaster, wood, plastic, wire, etc. The test feed is to include the full range of materials that will be encountered in actual operation of the process;

b. Results of analyses, using polarized light microscopy, that document the asbestos content of the wastes processed;

c. Results of analyses, using transmission electron microscopy, that document that the output materials are free of asbestos. Samples for analysis are to be collected as 8-hour composite samples (one 200-gram [7-ounce] sample per hour), beginning with the initial introduction of RACM or asbestos-containing waste material and continuing until the end of the performance test;

d. A description of operating parameters, such as temperature and residence time, defining the full range over which the process is expected to operate to produce

nonasbestos (asbestos-free) materials. Specify the limits for each operating parameter within which the process will produce nonasbestos (asbestos-free) materials; and

e. The duration of the test.

(3) During the initial 90 days of operation,

a. Continuously monitor and log the operating parameters identified during start-up performance tests that are intended to ensure the production of nonasbestos (asbestos-free) output material.

b. Monitor input materials to ensure that they are consistent with the test feed materials described during start-up performance tests in paragraph (2)a. of Rule 17.15.

c. Collect and analyze samples, taken as 10-day composite samples (one 200-gram [7-ounce] sample collected every 8 hours of operation) of all output material for the presence of asbestos. Composite samples may be for fewer than 10 days. Transmission electron microscopy shall be used to analyze the output material for the presence of asbestos. During the initial 90-day period, all output materials must be stored on-site until analysis shows the material to be asbestos-free or disposed of as asbestos-containing waste material in accordance with Rule 17.10.

(4) After the initial 90 days of operation,

a. Continuously monitor and record the operating parameters identified during start-up performance testing and any subsequent performance testing. Any output produced during a period of deviation from the range of operating conditions established to ensure the production of nonasbestos (asbestos-free) output materials shall be:

1. Disposed of as asbestos-containing waste material in accordance with Rule 17.10 or

2. Recycled as waste feed during process operation within the established range of operating conditions, or

3. Stored temporarily on-site in a leak-tight container until analyzed for asbestos content. Any product that is not asbestos-free shall be either disposed of as asbestos-containing waste material or recycled as waste feed to the process.

b. Collect and analyze monthly composite samples (one 200-gram [7-ounce] sample collected every 8 hours of operation) of the output material. Transmission electron microscopy shall be used to analyze the output material for the presence of asbestos.

(5) Discharge no visible emissions to the outside air from any part of the operation, or use the methods specified by Rule 17.12 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(6) Maintain records on-site and include the following information:

a. Results of start-up performance testing and all subsequent performance testing, including operating parameters, feed characteristic, and analyses of output materials.

b. Results of the composite analyses required during the initial 90 days of operation under Rule 17.15(3).

c. Results of the monthly composite analyses required under Rule 17.15(4).

d. Results of the continuous monitoring and logs of process operating parameters under Rules 17.15(3) and (4).

e. The information on waste shipments received as required in Rule 17.14(5).

f. For output materials where no analyses were performed to determine the presence of asbestos, record the name and location of the purchaser or disposal site to which the output materials were sold or deposited, and the date of sale or disposal.

g. Retain records required by paragraph (6) of Rule 17.15 for at least 2 years.

(7) Submit the following reports to the Administrator:

a. A report for each analysis of product composite samples performed during the initial 90 days of operation.

b. A quarterly report, including the following information concerning activities during each consecutive 3-month period:

1. Results of analyses of monthly product composite samples;

2. A description of any deviation from the operating parameters established during performance testing, the duration of the deviation, and steps taken to correct the deviation;

3. Disposition of any product produced during a period of deviation, including whether it was recycled, disposed of as asbestos-containing waste material, or stored temporarily on-site until analyzed for asbestos content;

4. The information on waste disposal activities as required in Rule 17.14(6).

(8) Nonasbestos (asbestos-free) output material is not subject to any of the provisions of Rule 17. Output materials in which asbestos is detected, or output materials produced when the operating parameters deviated from those established during the start-up performance testing, unless shown by transmission electron microscopy analysis to be asbestos-free, shall be considered to be asbestos-containing waste and shall be handled and disposed of according to Rules 17.10 and 17.14 or reprocessed while all of the established operating parameters are being met.

Rule 18. Prevention of Significant Air Quality Deterioration.

Rule 18.1. General provisions.

(a) No owner or operator of a major stationary source as defined in this rule shall begin actual construction and no owner or operator shall commence a major modification of a stationary source as defined in this rule unless the applicable requirements of this rule have been met. This rule shall be referred to hereinafter as the PSD rule.
[Formerly §4-41, Rule 18.2(c); 18.2(a)(1) and 40 CFR 51.166(i)(1) July 1, 1993 edition; New 4/25/94 letter from Doug Neeley, EPA IV, to TDEC]

(b) The requirements of this rule shall apply to a proposed major stationary source or major modification with respect to each pollutant subject to regulation under this chapter that it would emit. The requirements of this rule shall apply to any major stationary source or major modification that would be constructed in an area which is designated as attainment under Section 107 of the federal Clean Air Act. No major stationary source or major modification shall be subject to this rule with respect to a particular pollutant if the owner or operator demonstrates that the major source or major modification is located in an area designated as nonattainment with respect to that pollutant, in which event other rules in this chapter would apply.
[Formerly §4-41, Rule 18.2(a)(2); 18.2(d)(2) and 40 CFR 51.166(i)(3) and (5)]

(c) Any owner or operator who constructs or operates a major source or major modification not in accordance with the application submitted pursuant to this rule or with the terms of any approval to construct, or without applying for and receiving approval in accordance with this rule and with Section 4-8 of this chapter regarding permit applications and permit approvals, shall be subject to appropriate enforcement action.
[Formerly §4-41, Rule 18.2(a)(3)]

(d) An installation permit shall become invalid if construction is not commenced within eighteen (18) months after its issuance, or if construction is discontinued for a period of eighteen (18) months or more, or if construction is not completed within eighteen (18) months after the completion date specified on the installation permit application. The board may grant an extension to complete construction of the source, which shall not exceed an additional eighteen (18) months, provided adequate justification is presented by the applicant. For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 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 best available control technology for the source.
[Formerly Rule 18.2(a)(4) plus 40 CFR 51.166(j)(4)]

(e) An installation permit shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of this chapter and any other requirements under local, state or federal law.
[Formerly Rule 18.2(a)(5); 40 CFR 51.166(r)(1)]]

(f) If a stationary source or a modification becomes a major stationary source or a major modification solely by virtue of a relaxation in any enforcement limitation on the capacity of the stationary source or modification to emit a pollutant, such as a restriction on hours of operation, and the enforcement limitation was established after August 7, 1980, then the source shall be deemed a major stationary source or a major modification for the purposes of the PSD rule. The PSD rule shall apply to the source or modification as though construction had not yet commenced on the source or modification, so that it may continue to operate under the enforcement limitation(s) that prevented it from becoming a major source until such time as a new PSD certificate of operation for which it applies is issued by the director.

[Formerly Rule 18.2(a)(6); 40 CFR 51.166(r)(2)]

Rule 18.2. Definitions. All terms used in this rule shall have the meaning given them herein, and all terms not defined herein shall have the meaning given them in Section 4-2.
[Formerly Rule 18.2(b); plus additional definitions from 40 CFR §51.166(b)]

(a) *Actual emissions* means the calculated rate of emissions of a pollutant from an emissions unit, as determined in accordance with Paragraphs (a)(1), (2) and (3) below:

(1) Actual emissions calculated as of a particular date shall equal the average rate, in tons per year, at which the unit emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The director may 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. For a new source, actual emissions shall be calculated on the projected operating hours submitted on the installation permit application as representative of normal source operation. If the projected hours are less than 8760 hours per year, then the operating hours shall be specified as a federally enforceable permit condition. The calculation of actual emissions shall include fugitive emissions except where fugitive emissions are expressly excluded by a provision of this chapter.

(2) However, unless the source is in compliance with legally enforceable limits which restrict the operating rate, or hours of operation, or both, the director shall deem actual emissions of the unit to be those calculated using the maximum rated capacity of the source, based on 8760 hours per year, and the most stringent of the following:

a. The applicable standards as set forth in section 4-41, Rule 15 and Rule 16; or
b. The applicable emissions limitation in this chapter, including those with a future compliance date; or
c. The emissions rate specified as an enforceable permit condition under local, state or federal law.

(3) If there is an emissions unit in place and subject to a permit or certificate of operation which has not begun normal operations on the particular date that an additional unit is to be issued a permit or certificate of operation, then actual emissions of the unit in place shall be calculated as being the potential to emit of the unit on that date. *[Earlier version was located in Section 4-2.]*

(b) *Allowable emissions* means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to enforceable limits under local, state or federal law 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 Section 4-41, Rule 15 and Rule 16; or

(2) The applicable emissions limitation in this chapter, including those with a future compliance date; or

(3) The emissions rate specified as an enforceable permit condition under local, state or federal law. *[Earlier version was located in Section 4-2.]*

(c) *Baseline area* means any intrastate area (and every part thereof) designated as attainment or unclassifiable under Section 107 of the federal Clean Air Act, as amended in 1990, 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 microgram per cubic meter (annual average) of the pollutant for which the minor source baseline date is established. Area redesignations cannot intersect or be smaller than the area of impact of any major stationary source or major modification which establishes a minor source baseline date or is subject to the PSD rule and would be constructed in the same state as the state proposing the redesignation. Any baseline area established originally for the TSP increment shall remain in effect and shall apply for purposes of determining the amount of available PM_{10} increments, except that such baseline area shall not remain in effect if the director rescinds the corresponding minor source baseline date in accordance with Rule 18.2(f)(4).
[New: 58 FR 31636]

(d)(1) *Baseline concentration* means that ambient concentration level which exists in the baseline area 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:

a. The actual emissions representative of sources in existence on the applicable minor source baseline date except as provided in paragraph (d)(2) of this section; and

b. The allowable emissions of major stationary sources which commenced construction before January 6, 1975, but were not in operation by the applicable minor source baseline date.

(2) The following emissions will not be included in the baseline concentration but will instead affect the applicable maximum allowable increment increase(s):

a. Actual emissions increases and decreases from any major stationary source on which construction commenced after January 6, 1975; and

b. Actual emissions increases and decreases at any stationary source occurring after the minor source baseline date.

(e) *Major Source baseline date* means:

(1) In the case of particulate matter and sulfur dioxide, January 6, 1975; and

(2) In the case of nitrogen dioxide, February 8, 1988.

(f) *Minor Source baseline date* means:

(1) In the case of particulate matter and sulfur dioxide, the earliest date after August 7, 1977, that a major source or major modification subject to the PSD rule submitted a complete application to the director. The established minor source baseline date for sulfur dioxide in the Chattanooga-Hamilton County Attainment Area is April 28, 1983. The minor source baseline date for particulate matter will be the date of the director's receipt of a complete PSD application for a major particulate matter source or major particulate matter modification in the Chattanooga-Hamilton County Attainment Area.

(2) In the case of nitrogen dioxide, February 8, 1988.

(3) In the case of other air pollutants, the baseline date is established for each pollutant for which increments have been determined in Section 163 of the federal Clean Air Act, as amended in 1990, if:

a. The area in which the proposed source or modification would be constructed is designated attainment or unclassifiable for the pollutant on the date of the complete PSD permit application; and

b. In the case of a major stationary source, the pollutant would be emitted in significant amounts, as described in Rule 18.2(t) or (aa), or for any pollutant not listed in Rule 18.2(u) at any emissions rate; in the case of a major modification there would be a significant net emissions increase of the pollutant as described in Rule 18.2(u) or (aa) and for any pollutant not listed in Rule 18.2(u) for which there would be any net emissions increase.

(4) Any minor source baseline date established originally for the TSP increment shall remain in effect and shall apply for purposes of determining the amount of available PM_{10} increments, except that the director may rescind any such minor source baseline date where it can be established that the emissions increase from the major stationary source, or the net emissions increase from the major modification, responsible for triggering that date did not result in a significant amount of PM_{10} emissions.*[New: 58 FR 31636]*

(g) *Begin actual construction* means, 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 of underground pipework, and construction of permanent storage structures. With respect to a change in the method of operation this term refers to those on-site activities, other than preparation activities, which mark the initiation of the change. *[Earlier version was located in Section 4-2.]*

(h) *Best available control technology (BACT)* means an emissions limitation (including a visible emissions limitation) based on the maximum degree of reduction for each pollutant subject to regulation under this chapter 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 combination techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable limitation established under Rules 15 and 16. If a source demonstrates to the director 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, operations standard or combination thereof, submitted by the source and approved by the director, may be prescribed instead to satisfy the requirement for the application of best available control technology. 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.

[Earlier version was located in Section 4-2.]

(i) *Building, structure, facility or installation* means 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) except the activities of any vessel. 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 two-digit code) as described in the Standard Industrial Classification Manual, 1987.

(j) *Commence* as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:

(1) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time as determined by the director; or
(2) Entered into binding agreements or contractual obligations, which cannot be cancelled 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.
[Earlier version was located in Section 4-2.]

(k) *Complete,* in reference to an application for a PSD permit, means that the application contains all the information necessary for processing the application. Deeming an application complete for purposes of permit processing does not preclude the director from requesting or accepting any additional information.

(l) *Emissions unit* means any part of a stationary source which emits or would have the potential to emit any pollutant subject to regulation under the PSD rule. *[Previously located in Section 4-2 only.]*

(m) *Federal land manager* means, with respect to any lands of the United States, the secretary of the department with authority over such lands.

(n) *Fugitive emissions* means those emissions which could not reasonably pass through a stack, chimney, vent, roof monitor or other functionally equivalent opening as determined by the director.

(o) *High terrain* means any area having an elevation nine hundred (900) feet or more above the base of the stack of a source.

(p) *Innovative control technology* means 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 as determined by the director.

(q) *Legally enforceable* means all limitations and conditions which are enforceable under local, state, or federal law, including those under this chapter or an implementation plan, and any permit or certificate of operation requirements established pursuant to this chapter.

(r) *Low terrain* means any area other than high terrain.

(s) *Major sources and modifications for ozone*. A source that is major for volatile organic compounds shall be considered major for ozone. Any net emissions increase that is significant for volatile organic compounds shall be considered significant for ozone.

(t) *Major stationary source* means:

(1) Any of the following stationary sources which emits or has the potential to emit one hundred (100) tons per year or more of any pollutant regulated under this chapter, including fugitive emissions:

a. Fossil fuel-fired steam electric plants of more than two hundred fifty (250) million Btu per hour heat input;
b. Municipal incinerators capable of charging more than two hundred fifty (250) tons of refuse per day;
c. Fossil fuel boilers (or combinations thereof) totaling more than two hundred fifty (250) million Btu per hour heat input;
d. Petroleum storage and transfer facilities with a total storage capacity exceeding three hundred thousand (300,000) barrels;
e. Coal cleaning plants (with thermal dryers);
f. Kraft pulp mills;
g. Portland cement plants;
h. Primary zinc smelters;
i. Iron and steel mill plants;
j. Primary aluminum ore reduction plants;
k. Primary copper smelters;
l. Hydrofluoric acid plants;
m. Sulfuric acid plants;

n. Nitric acid plants;
o. Petroleum refineries;
p. Lime plants;
q. Phosphate rock processing plants
r. Coke oven batteries;
s. Sulfur recovery plants;
t. Carbon black plants (furnace process);
u. Primary lead smelters;
v. Fuel conversion plants;
w. Sintering plants;
x. Secondary metal production plants;
y. Chemical process plants;
z. Taconite ore processing plants;
aa. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
bb. Glass fiber processing plants;
cc. Charcoal production plants;

and any other stationary source category regulated by the U.S. Environmental Protection Agency under Sections 111 or 112 of the federal Clean Air Act, as amended in 1990; and

(2) Any other stationary source which emits or has the potential to emit two hundred fifty (250) tons per year or more of any pollutant regulated under this Chapter, excluding fugitive emissions; and

(3) Any physical change that would occur at a stationary source not otherwise qualifying under the PSD rule as a major stationary source, if the change would constitute a major stationary source by itself, excluding fugitive emissions.

(4) Upon adoption by this jurisdiction of an emission limitation pursuant to Section 112 of the federal Clean Air Act, as amended in 1990, applicable to a specific source category requiring the maximum degree of reduction in emissions determined to be achievable, a major stationary source otherwise subject to Rule 18 is exempt from the requirements of Rule 18 if that major stationary source is within the specific source category to which the local emission limitation described above applies, beginning on the effective date of that local emission limitation. Qualifying for this exemption from Rule 18 shall not permit said major stationary source to increase its emissions of any pollutant previously subject to emission limitations at that source pursuant to Rule 18.

(u) *Major modification* means any physical change in or change in the method of operation of a major stationary source that would result in a rate of emissions that would equal or exceed any of the following net emissions increases:

Carbon monoxide:	100	tons per year (tpy)
Nitrogen oxides:	40	tpy
Sulfur dioxide:	40	tpy
Particulate matter:	25	tpy
PM_{10}:	15	tpy
Ozone:	40	tpy of volatile organic compounds
Lead:	0.6	tpy
Asbestos	0.007	tpy
Beryllium	0.0004	tpy
Mercury	0.1	tpy
Vinyl Chloride	1	tpy
Fluorides	3	tpy
Sulfuric acid mist	7	tpy
Hydrogen sulfide (H_2S)	10	tpy
Total reduced sulfur, including H_2S	10	tpy
Reduced sulfur compounds, including H_2S	10	tpy
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans):	3.5×10^{-6}	tpy
Municipal waste combustor metals (measured as particulate matter):	15	tpy
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride):	40	tpy
Municipal solid waste landfill Emissions (measured as		

Nonmethane organic compounds)		
45 megagrams per year	50	tpy;

and in reference to a net emissions increase or the potential of a source to emit a pollutant subject to regulation under this chapter not listed above, any emissions rate. These net emissions increases are "significant" net emissions increases for the purposes of the PSD rule.

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

a. Routine maintenance, repair and replacement;

b. Use of an alternative fuel or raw material by reason of any order under section 2(a) and of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

c. Use of an alternative fuel by reason of an order or rule under section 125 of the federal Clean Air Act, as amended in 1990;

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

e. Use of an alternative fuel or raw material by a stationary source which

1. The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any legally enforceable permit or certificate condition under local, state or federal law which was established after January 6, 1975 pursuant to 40 Code of Federal Regulations (CFR) 52.21 or under regulations approved pursuant to 40 CFR Subpart I or Section 51.166, which have been incorporated by reference in Chapter 4; or

2. The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166, which have been incorporated by reference in Chapter 4;

f. An increase in the hours of operation or in the production rate, unless such change would be prohibited under any legally enforceable permit or certificate condition under local, state or federal law which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I or Section 51.166, which have been incorporated by reference in Chapter 4; or

g. Any change in ownership at a stationary source.

h. The addition, replacement or use of a pollution control project at an existing electric utility steam generating unit, unless the Administrator determines that

such addition, replacement or use renders the unit less environmentally beneficial, or except:

1. When the reviewing authority has reason to believe that the pollution control project would result in a net emissions increase, as described in Rule 18.2(v), in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area conducted for the purpose of Title I of the federal Clean Air act, if any, that are significant, as described in Rule 18.2(u) or Rule 18.2(aa), and
2. The director determines that the increase will cause or contribute to a violation of any national ambient air quality standard or PSD increment, or visibility limitation.

i. The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:

1. The state implementation plan; and
2. Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

j. 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 pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis.

k. The reactivation of a very clean coal-fired electric utility steam generating unit. *[New: 40 CFR 51.166(b), (Revised as of July 1, 1993). Previously located in Section 4-2 only.]*

(2) Upon adoption by this jurisdiction of an emission limitation pursuant to Section 112 of the federal Clean Air Act, as amended in 1990, applicable to a specific source category requiring the maximum degree of reduction in emissions determined to be achievable, a major modification otherwise subject to Rule 18 is exempt from the requirements of Rule 18 if that major modification is within the specific source category to which the local emission limitation described above applies, beginning on the effective date of that local emission limitation. Qualifying for this exemption from Rule 18 shall not permit said major modification to increase its emissions of any pollutant previously subject to emission limitations at that source pursuant to Rule 18.

(v) *Net emissions increase* that is significant for the purposes of the PSD rule means the amount by which the sum of the following exceeds zero:

(1) Any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source; and

(2) Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.

a. An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date five (5) years before a completed application for the particular change is submitted and the date that the increase from the particular change occurs.

b. 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 regulations approved pursuant to this section, which permit is in effect when the increase in actual emissions from the particular change occurs.

c. An increase or decrease in actual emissions of sulfur dioxide, particulate matter, or nitrogen oxides which occurs before the applicable minor source baseline date 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} emissions can be used to evaluate the net emissions increase for PM_{10}.

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

e. A decrease in actual emissions is creditable only to the extent that:

1. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions; and
2. It is enforceable under local, state and federal law at and after the time that actual construction on the particular change begins; and
3. It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.

f. 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.

g. For the purpose of determining the net emissions increase for the PSD rule, fugitive emissions shall be included in actual emissions calculations only for those source categories identified in Rule 18.2(t). For the purpose of

determining the net emissions increase for the PSD rule, secondary emissions from any off-site support facility which would not be constructed or increase its emissions except as a result of the operation of the modification shall be included in actual emissions only for those source categories identified in Rule 18.2(t). *[Previously located in Section 4-2 only.]*

[New: 58 FR 31636]

(w) *Necessary preconstruction approvals or permits* means those permits or approvals required under the air pollution control laws and regulations which are part of this chapter.

(x) *Pollutant* means any air contaminant as defined in section 4-2 or combination of such air contaminants, including any physical, chemical, biological, or radioactive (including source material, special nuclear material, and byproduct material) air contaminant which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any such air contaminants, to the extent the U.S. Environmental Protection Agency has identified such precursor or precursors for the particular purpose for which the term "pollutant" is used. *[Origin is Section 302 (g), Clean Air Act.]*

(y) *Potential to emit* means 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 under local or state law and under federal law once these regulations have been incorporated into the state implementation plan. Secondary emissions are not considered in determining the potential to emit of a new or existing stationary source of major modification. *[Previously located in Section 4-2 only.]*

(z) *Secondary emissions* means emissions which 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 purposes of this rule, 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 be constructed or increase its emissions except 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.

(aa) *Significant* means, in addition to Rule 18.2(u), any emissions rate or any net emissions increase associated with a major stationary source or major modification which would be located within

10 kilometers (6.2 miles) of a Class I area and have an impact on such area equal to or greater than one microgram per cubic meter (24-hour average). *[Previously located in Section 4-2 only.]*

(bb) *Stationary source* means any building, structure, facility or installation which emits or may emit any air pollutant subject to regulation under this chapter.

(cc) *Reserved.*

(dd) *Welfare* means effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, visibility, weather and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether those effects are caused directly or by transformation, conversion, or combination with other air pollutants
[New T.A.R. 1200-3-9-.01(4)(b)32. adopted 12/14/94 by State APCB]

(ee) *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.

(ff) *Pollution control project* means any activity or project undertaken at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are limited to:

(1) The installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide and nitrogen oxides controls and electrostatic precipitators;

(2) An activity or project to accommodate switching to a fuel which is less polluting than the fuel used prior to the activity or project, including but not limited to natural gas or coal re-burning, or the co-firing of natural gas and other fuels for the purpose of controlling emissions;

(3) A permanent clean coal technology demonstration project conducted under Title II, Section 101(d) of the Further Continuing Appropriations Act of 1985 [Title 42 U.S.C. 5903(d)], or subsequent appropriations, 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, or

(4) A permanent clean coal technology demonstration project that constitutes a repowering project.

(gg) *Representative actual annual emissions* means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the director determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the director shall:

(1) Consider all relevant information including, but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under Title IV of the federal Clean Air Act; and

(2) Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.

(hh) *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.

(ii) *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.

(jj) *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 plan and other requirements necessary to attain and maintain the national ambient air quality standards during and after the project is terminated.

(kk) *Repowering*:

(1) 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, 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.

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

(3) The director shall give expedited consideration to permit applications for any source that satisfies the requirements of this definition and is granted an extension under section 409 of the federal Clean Air Act.

(ll) *Reactivation of a very clean coal-fired electric utility steam generating unit* means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the emissions inventory at the time of enactment;

(2) Was equipped prior to shutdown with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(3) Is equipped with low NO_x burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the federal Clean Air Act. *[New: 40 CFR 51.166(b) (Revised as of July 1, 1993)]*

(mm) *Control strategy* means a combination of measures, approved by the Board, designated to achieve the aggregate reduction of emissions necessary for attainment and maintenance of the ambient air quality standards specified in section 4-41, Rule 21, or of the national ambient air quality standards, including but not limited to measures such as:

(1) Emission limitations;

(2) Emission fees or other economic incentives or disincentives;

(3) Closing or relocation of residential, commercial, or industrial facilities;

(4) Changes in schedules or methods of operation of commercial or industrial facilities or transportation systems, including, but not limited to, short term changes made in accordance with standby plans;

(5) Periodic inspection and testing of motor vehicle emission control systems, at such time it is determined that such programs are feasible and practicable;

(6) Emission control measures applicable to in-use motor vehicles, including, but not limited to, measures such as mandatory maintenance, installation of emission control devices, and conversion of gaseous fuels;

(7) Any transportation control measures considered feasible and practicable;

(8) Control or prohibition of a fuel or fuel additive used in motor vehicles, if such control or prohibition is necessary to achieve a primary or secondary air quality standard, or national primary or secondary air quality standard; and

(9) Any variation of, or alternative to any measure delineated herein.

Rule 18.3. Sources Exempt from the Rule.

(a) A major stationary source or a major modification shall not be subject to the requirements of the PSD rule if:

(1) The stationary 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 such source does not belong to any of the source categories listed under Rule 18.2(t) or any other stationary source category which, as of the effective date of this rule, is being regulated under Rule 15 or Rule 16; or

(2) The source or modification is a portable stationary source which has previously received an installation permit under requirements equivalent to those contained in the PSD rule if:

a. The source proposes to relocate and emissions of the source at the new location would be temporary; and
b. The emissions from the source would not exceed its allowable emissions; and
c. The emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated; and
d. Thirty (30) days advance notice is given to the director prior to the relocation identifying the proposed new temporary location and the probable duration of the operation at the new location.

(b) Source impact and air quality analysis as required in Rule 18.4 shall not apply if the allowable emissions from a proposed new major stationary source with respect to a particular pollutant, or the net emissions increase of a particular pollutant from a major modification, would be temporary and impact no Class I area and no area where an applicable increment is known to be violated.

(c) Source impact and air quality analysis as required in Rule 18.4 as they relate to any maximum allowable increase for a Class II area do not apply to a major modification of a stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each pollutant from the modification after the application of best available control technology (BACT) would be less than fifty (50) tons per year.

(d) A proposed major stationary source or major modification may be exempted by the director from preconstruction air quality analysis as required in Rule 18.4 with respect to monitoring for a particular pollutant if:

(1) The emissions increase of the pollutant from a new stationary source or the net emissions increase of the pollutant from a modification would cause, in any area, air quality impacts less than the following amounts:

Carbon monoxide	575 µg/m^3	8-hour average
Nitrogen dioxide	14 µg/m^3	annual average
Particulate matter		
PM_{10}	10 µg/m^3	24-hour average
Sulfur dioxide	13 µg/m^3	24-hour average
Ozone		No de minimis level established, but any net increase of 100 tons/year or more of volatile organic compounds subject to the PSD rule may not be exempted from ambient impact analysis required in Rule 18.4(i).
Lead	0.1 µg/m^3	3-month average
Mercury	0.25 µg/m^3	24-hour average
Beryllium	0.001 µg/m^3	24-hour average
Fluorides	0.25 µg/m^3	24-hour average
Vinyl chloride	15 µg/m^3	24-hour average
Total reduced sulfur	10 µg/m^3	1-hour average
Hydrogen sulfide	0.2 µg/m^3	1-hour average
Reduced sulfur compounds	10 µg/m^3	1-hour average; or

[New: 58 FR 31637]

(2) The pollutants are not listed in Rule 18.3(d)(1) above; or

(3) The concentrations of the pollutant in the area that the source or modification would affect are less than the concentrations listed in Rule 18.3(d)(1).

(f) Source impact analysis otherwise required by Rule 18.4 does not apply to a stationary source or modification with respect to any maximum allowable increase for nitrogen oxides if the owner or operator of the source or modification submitted an installation and temporary operating permit application before the provisions embodying the maximum allowable increase took effect as part of this chapter and the director subsequently determined that the application as submitted before that date was complete.

Rule 18.4. Requirements of Source Owner or Source Operator.

(a) No major stationary source or major modification subject to the PSD rule may begin actual construction in any area to which the PSD rule applies unless a permit has been issued for such proposed source or modification in accordance with the requirements of the PSD rule with respect to each pollutant subject to the PSD rule that it would emit, setting forth emission limitations for the source or modification which conform to the PSD rule.
[Formerly Rule 18.2(a)(3) and Rule 18.2(i)(1) and (2)]

(b) A major stationary source or major modification shall meet the most stringent of each applicable emissions limitation in the chapter and the applicable emissions standard under section 4-41, Rules 15 and 16.
[40 CFR §51.166(j)(1)]

(c) A new major stationary source shall apply best available control technology (BACT) for each pollutant subject to regulation under this chapter that it would have the potential to emit:

(1) at a rate that would equal or exceed amounts deemed significant as described in Rule 18.2(u) and Rule 18.2(v); and
(2) at any emissions rate for any pollutant subject to regulation under this chapter not listed in Rule 18.2(u); and
(3) at a rate that would equal or exceed amounts deemed significant as described in Rule 18.2(aa).

[Formerly Rule 18.2(j)(2); §4-2; plus 40 CFR §51.166(b)(23), (b)(3), and (j)(2)]

(d) A major modification shall apply BACT for each pollutant subject to regulation under this chapter for which it would be a significant net emissions increase at the source as described in Rule 18.2(u) and Rule 18.2(v) or Rule 18.2(aa) and Rule 18.2(v); and for each pollutant subject to this chapter not listed in Rule 18.2(u) for which there would be a net emissions increase as described in Rule 18.2(v) at any emissions rate. This requirement applies to each proposed emissions 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.
[Formerly Rule 18.2(j)(3); §4-2; plus 40 CFR §51.166(j)(3), (b)(23) and (b)(3)]

(e) 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 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.
[New 40 CFR §51.166(j)(4)]

(f) Stack Heights. The degree of emission limitation required for control of any air pollutant under the PSD rule shall not be affected in any manner by:

(1) So much of a stack height, not in existence before December 31, 1970, as exceeds good engineering practice, or

(2) Any other dispersion technique not implemented before December 31, 1970**.**
[Also at Rule 22 for non-PSD sources; Formerly Rule 18.2(i)(2) and 18.2(m)(1) plus 40 CFR §51.166(h)]

(g) Source impact analysis:

(1) The owner or operator of the proposed source or modification shall demonstrate that allowable emissions 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 whichever of the following concentrations is lowest for the pollutant for a period of exposure:

a. Any national ambient air quality standard in Title 40 CFR Part 50, which has been incorporated by reference in Chapter 4; or

b. Any applicable maximum allowable increase over the baseline concentration in any baseline area.

(2) Rule 18.4(g)(1) shall not apply to a stationary source or modification with respect to any maximum allowable increase for PM_{10} if:

a. The owner or operator of the source or modification submitted an application for a permit under the applicable permit program approved under the federal Clean Air Act before the provisions embodying the maximum allowable increases for PM_{10} took effect as part of the plan, and

b. The director subsequently determined that the application as submitted before that date was complete. Instead, the applicable requirements equivalent to Rule 18.4(g)(1) shall apply with respect to the maximum allowable increases for TSP as in effect on the date the application was submitted.

[Formerly Rule 18.2(e)(1) and Rule 18.2(i)(l), plus 40 CFR §51.166(d) and 51.166(k); New 58 FR 31367]

(3) All estimates of ambient concentrations required under the PSD rule shall be based on the applicable air quality models, data bases, and other requirements specified in Title 40 CFR Part 51, Appendix W, which have been incorporated by reference in Chapter 4. Where an air quality impact model specified therein is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis

for a specific local program. Written approval of the Administrator of U.S. EPA must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment in accordance with Rule 18.6(g).
[Formerly 18.1 and 18.2(k); plus 40 CFR §51.166(l); New 40 CFR 51.166(l)(1)]

(h) Sources impacting Federal Class I areas.

(1) The director shall promptly provide written notice of receipt of any permit application for a proposed major stationary source or major modification, the emissions from which may affect a Class I area or which may have an adverse impact on visibility in any Class I area to the EPA Administrator, the Federal Land Manager, and the Federal official charged with direct responsibility for management of any lands within any such area. The director shall transmit to the U.S. EPA Administrator and the Federal Land Manager a copy of each permit application relating to a major stationary source or major modification which would affect a Class I area. This application shall include a copy of all information relevant to the permit application and shall be sent within 30 days after the director's receipt of the permit application, and at least 60 days prior to any public hearing on the application for a permit to construct. Such notification shall include an analysis of the proposed source's anticipated impacts on visibility in the Federal Class I area. The director shall also provide the EPA Administrator, the Federal Land Manager and such Federal officials with a copy of the preliminary determination and shall make available to them any materials used in making that determination promptly after the director makes it. In addition, notification of public hearings, final determinations, and permits issued shall be provided. Finally, the director shall also notify all affected Federal Land Managers within 30 days of the director's receipt of any advance notification of any such permit application.
[*Formerly Rule 18.2(n)(1); plus T.A.R. 1200-3-9.01(4)(n)1; see April 25, 1994, letter from Doug Neeley, U.S.EPA IV to TDEC; amendments adopted by TN APCB 12/14/94 but not yet state-effective.*]

(2) The director shall provide the Federal Land Manager and the Federal official charged with direct responsibility for management of Class I lands with the information described in Rule 18.4(h)(1) above to facilitate their efforts to protect the air quality related values (including visibility) of any such lands and to enable them to consider, in consultation with the Administrator, whether a proposed source or modification would have an adverse impact on such values.
[40 CFR §51.166(p)]

(3) A Federal Land Manager of any such lands may present to the director, after the director's preliminary determination required under the PSD rule, a demonstration that the emissions from the proposed source or modification would have an adverse impact on the air quality-related values (including visibility) of any Federal mandatory Class I 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, the director shall not issue the permit. If the director does not concur, the director must, in the notice of public hearing on the permit application, either explain the decision or give notice as to where the explanation can be obtained. *[Formerly Rule 18.2(n)(2); plus 40 CFR §51.166(p)(3) and T.A.R. 1200-3-9.01(4)(n)4]*

(i) Air Quality Analysis

(1) Preapplication analysis: Any application for a permit under the PSD rule shall contain an analysis of ambient air quality as required by the director in the area that the major stationary source or major modification would affect for each of the following pollutants:

a. For the stationary source, each pollutant that it would have the potential to emit in a significant amount as described in Rule 18.2(u), (v) and (aa), or for any pollutant subject to regulation under this chapter not listed in Rule 18.2(u) that it would have the potential to emit at any rate;

b. For the modification, each pollutant for which a significant net emissions increase, as described in Rules 18.2(u), (v) and (aa), would result from the modification, or for any pollutant subject to regulation under this chapter not listed in Rule 18.2(u) for which there would be any net emissions increase.

(2) The analysis shall contain such air quality monitoring data as the director determines is necessary to assess ambient air quality for any pollutant for which no ambient air quality standard exists in any area that the emissions of that pollutant would affect.

(3) With respect to any pollutant, other than nonmethane hydrocarbons, for which an ambient air quality standard (Rule 21) exists, 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 monitoring data that is required shall have been gathered over a period of 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 (1)

year (but not less than four [4] months) the data that is required shall have been gathered over at least that shorter period.

(5) The owner or operator of a proposed major stationary source or major modification of volatile organic compounds who satisfies all conditions of §4-8(e)(2), may provide post-approval monitoring data for ozone in lieu of providing preconstruction data as otherwise required by Rule 18.4(g) above.
[Formerly Rule 18.2(e)(7); §4-2; plus 40 CFR §51.166(m)(1)(v)]

(j) Post-construction monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the source or modification, conduct such ambient monitoring as the director in the reasonable exercise of discretion shall determine is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in any area.
[Formerly Rule 18.2(e)(3) plus 40 CFR 51.166(m)(2)]

(k) The owner or operator of a major stationary source or major modification shall meet the quality assurance requirements of Appendix B to Title 40 Code of Federal Regulations Part 58, which has been incorporated by reference in Chapter 4 during the operation of monitoring stations for the purposes of the PSD rule.
[Formerly Rule 18.2(e)(4) plus 40 CFR 51.166(m)(3)]

(l) The owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or make any determination required under procedures established in accordance with the PSD rule, including:

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

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

(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 where required by the PSD rule; and

(4) An analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the stationary source or modification and general commercial, residential, industrial, and other growth associated with the stationary source or modification, excluding an analysis of the impact on vegetation having no significant commercial or recreational value; and

(5) An 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. Upon the request of the director, the owner or operator shall also

provide information on the air quality impact of the source or modification (including meteorological and topographical data) necessary to estimate such impact, and 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. Such data in the possession of the Bureau shall be made available to the owner or operator, except for data protected pursuant to Section 4-19 of this Chapter.
[Formerly Rule 18.2(e)(2) plus 40 CFR §51.166(n) and (o)]

Rule 18.5. Area Classification.

(a) For the purposes of the PSD rule, the following area classifications shall apply:

(1)	Class I:	Great Smoky Mountains National Park Joyce Kilmer Slickrock National Wilderness Area Cohutta National Wilderness Area
(2)	Class II:	Remainder of Tennessee
(3)	Class III:	None

Areas in surrounding states are classified as specified in Title 40 Code of Federal Regulations Part 52, which has been incorporated by reference in Chapter 4.

(b) All of the following areas which were in existence on August 7, 1977, shall be Class I areas and may not be redesignated:

(1) International parks
(2) National wilderness areas which exceed 5,000 acres in size
(3) National memorial parks which exceed 5,000 acres in size
(4) National parks which exceed 6,000 acres in size.
[Formerly Rule 18.2(g) and (h)]

Rule 18.6. Ambient air increments.

(a) In areas designated as Class I, II, or III, increases in pollutant concentration over the baseline concentration shall be limited to the following:

Area	Pollutant	Maximum allowable increase ($\mu g/m^3$)

Class I	Particulate Matter:		
	PM_{10}, annual arithmetic mean	4	
	PM_{10}, 24-hour maximum		8
	Sulfur Dioxide:		
	Annual arithmetic mean		2
	24-hour maximum		5
	3-hour maximum		25
	Nitrogen Dioxide:		
	Annual arithmetic mean		2.5
Class II	Particulate Matter:		
	PM_{10}, annual arithmetic mean	17	
	PM_{10}, 24-hour maximum		30
	Sulfur Dioxide:		
	Annual arithmetic mean		20
	24-hour maximum		91
	3-hour maximum		512
	Nitrogen Dioxide:		
	Annual arithmetic mean		25
Class III	Particulate Matter:		
	PM_{10}, annual arithmetic mean	34	
	PM_{10}, 24-hour maximum		60
	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 (1) such period per year at any one (1) location.
[Formerly Rule 18.2(f); plus 40 CFR §51.166(c); New 58 FR 31367]

(b) Violations of Air Quality Increments. The director shall not issue an installation permit to a source or facility to construct in an area where the increment is known to be violated or the air quality review predicts a violation of the increment or the ambient air quality standards except in accordance with the following:

(1) All new or modified facilities shall utilize good engineering practice as determined by the director in designing stacks. In no event shall that part of a stack which exceeds good engineering practices stack height be taken into account for the purpose of determining the degree of emission limitation required for the control of any pollutant for which there is an ambient air quality standard established in Rule 21.

(2) A major source or major modification which would normally be required to meet BACT shall be required to meet the Lowest Achievable Emission Rate (LAER) for that type of source as determined by the director at the time of the permit application. The term "lowest achievable emission rate" means for any source that rate of emissions which reflects

a. The most stringent emission limitation which is achieved in practice by such class or category of source.
b. In no event shall a new or modified source emit any pollutant in excess of the amount allowable under the applicable provisions of Rule 15 (New Source Performance Standards).

(3) If the requirements of Rule 18.6(b)(2) are not adequate to protect the increment or the ambient air quality standards, the source shall obtain emission offsets, legally enforceable at or before the time of PSD permit issuance, sufficient to predict that the increment or air quality standard will no longer be violated. The offsets shall be accomplished on or before the time of the new source operation and demonstrated through a source test or through another method acceptable to the director.
[Formerly Rule 18.2(m) plus T.A.R. 1200-3-9.01(4)(m)]

(c) Exclusions from Increment Consumption

(1) The following concentrations shall be excluded in determining compliance with a maximum allowable increase as specified in Rule 18.6:

a. 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 sections 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 but no exclusion shall apply more than five (5) years after the effective date of such an order;

b. 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 but no exclusion shall apply more than five (5) years after the effective date of such plan, and if both an order as in Rule 18.6(c)(1)a. above and a plan are in effect, no such exclusion shall apply more than five (5) years after the later of such effective dates;

c. Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources;

d. 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.

(2) Concentrations attributable to the temporary increase in emissions of sulfur dioxide, particulate matter, or nitrogen oxides from stationary sources which are approved by the director as meeting the following criteria shall be excluded in determining compliance with a maximum allowable increase:

a. The time period over which the temporary emissions increase of sulfur dioxide, particulate matter or nitrogen oxides would occur is not to exceed two (2) years in duration; and

b. This time period is not renewable; and

c. No emissions increase is allowed under Rule 18.6(c) from a stationary source that would either impact a Class I area or an area where an applicable increment is known to be violated, or cause or contribute to the violation of an ambient air quality standard; and

d. Emissions limitations in effect at the end of the temporary increase time period must ensure that emissions levels from stationary sources affected by Rule 18.6(c) would not exceed those levels occurring from such sources before the director approved the temporary increase.

[Formerly Rule 18.2(d)(7); plus 40 CFR §51.166(f)]

(d) 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 would have no adverse impact on the air quality related values of 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 so certifies to the State, the director may, provided that applicable requirements are otherwise met, issue the permit with such emission limitations as may be necessary to assure that emissions of sulfur dioxide, particulate matter, and nitrogen oxides would not exceed the following maximum allowable increases over minor source baseline concentration for such pollutants:

Pollutant	Maximum Allowable Increases ($\mu g/m^3$)
Particulate matter:	
PM_{10}, annual arithmetic mean	17
PM_{10}, 24-hour maximum	30
Sulfur dioxide:	
Annual arithmetic mean	20
24-hour maximum	91
3-hour maximum	325
Nitrogen dioxide:	
Annual Arithmetic mean	25

[Formerly Rule 18.2(n)(3); plus 40 CFR §51.166(p)(4); New 58 FR 31637]

(e) Sulfur dioxide variance by Governor. If the owner or operator of a source or applicant for a proposed source or proposed modification cannot be approved under Rule 18.6 for failure to make the necessary demonstration to the Federal Land Manager, then in that event the owner, operator or applicant may make application for a variance from Rule 18.6. In making such application for variance, the owner, operator or applicant is required to undertake the following:

(1) The owner, operator or applicant may follow those procedures set forth in 40 CFR §51.166, which have been incorporated by reference in Chapter 4, to obtain the Governor's approval. If the Governor, with the concurrence of the Federal Land Manager, makes a favorable recommendation or if the Governor, without the concurrence of the Federal Land Manager, makes a favorable recommendation which receives the approval of the President, the owner, operator or applicant may make special application to the Chattanooga-Hamilton County Air Pollution Control Board for a Special Variance from Rule 18.6.

(2) If such application for such Special Variance is made, it shall be accompanied by a full and complete certified copy of the administrative record developed in undertaking the procedures set forth in Title 40 CFR §51.166, which have been incorporated by reference in Chapter 4. If there is no such administrative record of such procedures, the application shall, at a minimum, be accompanied by certified copies of the Governor's recommendation and the Federal Land Manager's concurrence and, where applicable, the approval of the President.

(3) Thereafter, following public notice, a public hearing shall be held at which the certified copy of the record of the proceedings before the Governor, the Federal Land Manager and the President, if any, shall be received in evidence. Upon that evidence and the

receipt of any other evidence offered by any interested party, the Board may, but is not required to, issue a variance from the requirements of this Rule 18 without regard to the elements of proof required for a variance under section 4-21 of this ordinance; provided, however, that such variance will carry with it all emission limitations and conditions suggested or imposed by the Governor to the same extent as if the Governor had issued the variance under Title 40 CFR §51.166, which have been incorporated by reference in Chapter 4; and also provided further that a variance from Rule 18 will not exempt the owner/operator or the source from all other provisions and requirements of the ordinance or requirements of other provisions of local, state or federal law.

[New: 40 CFR §51.166(p)(5) and (6)]

(f) Emission limitations for Presidential or gubernatorial variance. In the case of a permit issued under procedures developed pursuant to Rule 18.6, the source or modification shall comply with 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 24 hours or less for more than 18 days, not necessarily consecutive, during any annual period:

Maximum Allowable Increase ($\mu g/m^3$)

Period of Exposure	Terrain Areas	
	Low	High
24-hour maximum	36	62
3-hour maximum	130	221

[New: 40 CFR §51.166(p)(7)]

(g) Public Participation.

(1) The director shall notify any applicant under the PSD rule within 30 days after receipt of an application as to the completeness of the application or any deficiency in the application or information submitted. In the event of such a deficiency, the date of receipt of the application shall be the date on which the director received all required information.

(2) Unless there is a need for a longer period of time for review up to one (1) year, agreed upon by mutual consent, within six months after receipt of a complete application the director shall:

a. Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved**;**

b. 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;

c. Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and of the opportunity for comment at a public hearing as well as written public comment;

d. Send a copy of the notice of public comment to the applicant; the U.S. EPA Administrator; the State of Tennessee; any State that is contiguous to Tennessee; and to any other State, Federal Land Manager, or Indian Governing Body whose lands are within fifty (50) miles from the source or modification;

e. 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 it, the control technology required, and other appropriate considerations;

f. 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 submit a written response to any comments submitted by the public or request an extension for this purpose. 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;

g. Make a final determination whether construction should be approved, approved with conditions, or disapproved pursuant to the PSD rule; and

h. 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.

All public comments and written comments prepared by the director will be maintained in the public depositories for one (1) year after the date of issuance of the installation permit.
[Formerly Rule 18.2(l); plus 40 CFR §51.166(q) and T.A.R. 1200-3-9.01(4)(l)]

Rule 18.7. Innovative Control Technology.

(a) The owner or operator of a proposed major stationary source or major modification may request that the director approve a system of innovative control technology.

(b) The director may 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 Rule 18.4(c) by a date specified by the director which shall not be later than four (4) years after the time of startup or seven (7) years after permit issuance, whichever earliest occurs;

(3) The source or modification would meet the requirements equivalent to those in Rule 18.4(b), (c), (d), (e) and (g) based on the emission 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 shall not before the date specified by the director:

a. Cause or contribute to any violation of an applicable national ambient air quality standard; or
b. Impact any area where an applicable increment is known to be violated;

(5) All other applicable requirements including those for public participation have been met; and

(6) The provisions of Rule 18.4(g)(3) and Rule 18.6(c), (d), (e), and (f) (relating to Class I areas) have been satisfied with respect to all periods during the life of the source or modification.

(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;

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

(3) The director determines 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, or is contributing to ambient air quality violations.

(d) If a source or modification fails to meet the required level of continuous emissions reduction within the specified time period, or if the approval is withdrawn pursuant to Rule 18.7(c), the Board may allow the source or modification up to an additional three (3) years to meet the requirement for the application of best available control technology through use of a demonstrated system of control. *[Formerly Rule 18.2(o); plus 40 CFR §51.166(s)]*

Rule 19. Regulation of Lead Emissions.

Rule 19.1. Definitions.

Unless specifically defined in this Rule 19, the definitions from Section 4-2 will apply:

(1) *Significant source of lead* means

a. Any one permit unit, or combination of permit units as determined by the Board of Director, at any of the following stationary sources that emit lead or lead compounds (measured as elemental lead) of at least 1.25 tons per calendar quarter or at least five (5) tons per year whichever is the more restrictive: primary lead smelters, secondary lead smelters, primary cooper smelters, lead gasoline additive plants, lead-acid storage battery manufacturing plants that produce 2000 or more batteries per day.

b. Notwithstanding the source sizes specified in subparagraph a. of this paragraph, any other stationary source that emits 25 or more tons per year of lead or lead compounds measured as elemental lead.

(2) *Source* means any structure, building, facility, equipment, installation, or operation, or combination thereof, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person or by persons under common control. If a portion of a source is rented to or leased to another person for the purpose of a totally separate business venture, the Board or the Director may designate that portion as a separate source.

(3) *Permit unit* means any part of a source required to obtain a certificate of operation as required by this chapter.

Rule 19.2. General limitations for lead emissions.

(1) No person shall cause, suffer, allow, or permit lead emissions in excess of the limits established in this chapter.

(2) Upon mutual agreement of the Board or the Director and the owner or operator of a significant source of lead, an emission limitation more restrictive than that otherwise specified in this chapter may be established. Also, upon mutual agreement of the owner or operator of any source and the Board or the Director, operating hours, process flow rates, or any other operating parameters may be established as a binding limitation. The mutually acceptable limitations shall be stated as a special conditions for any permit, or certificate concerning the source. Violation of any accepted special limitations is grounds for revocation of the issued permit or certificate and/or other enforcement measures.

Rule 19.3. Requirements for new and modified sources of lead.

(1) A new source the actual emissions of which are in excess of 5.0 tons per year of lead or lead compounds measured as elemental lead shall utilize best available control technology (BACT).

(2) Any modification of a source which results in an increase in excess of 0.6 tons per year of lead or lead compounds measured as elemental lead shall utilize BACT.

(3) The owner or operator of a proposed new or modified source of lead shall perform a source impact analysis to demonstrate that the allowable emission increases from the proposed source or modification would not cause or contribute to a violation of the lead ambient air quality standard in the source impact area including background concentrations. Source impact analysis shall be based on the applicable air quality models and data bases acceptable to the Board or the Director.

(4) Additional requirements for certain new or modified sources of lead are given in Section 4-41, Rule 18.2 (Prevention of Significant Deterioration) and in Section 4-41, Rule 15 (New Source Performance Standards) of this chapter.

Rule 19.4. Source sampling and analysis. Source sampling and analysis for lead shall be conducted in the manner prescribed in Section 4-3(c) of this chapter.

Rule 19.5. Ambient monitoring requirements for lead. The Board or the Director may require ambient lead monitoring in the vicinity of a source regulated by this Rule 19. This monitoring shall be done in accordance with the requirements of this chapter.

Rule 20. Standards for Hospital/Medical/Infectious Waste Incinerators Constructed On Or Before November 10, 1998.

Rule 20.1. Purpose. It is the purpose of this rule to establish emission limitations and performance specifications for existing incinerators that burn hospital/medical/infectious waste in accordance with Sections 111 and 129 of the Clean Air Act and Title 40 CFR Part 60 Subpart Ce, federally effective November 14, 1997. (It should be noted that federal regulations at Title 40 CFR Part 60, Subpart Ec control for any Hospital/Medical/Infectious Waste Incinerator for which construction was commenced after June 20, 1996, and before [the effective date of this ordinance] or for which modification was commenced after March 16, 1998, and before [the effective date of this ordinance].)

Rule 20.2. General.

(1) Upon a showing of good cause and following the guidelines set forth herein, with the concurrence of the Board the Director may establish an emission limit more restrictive than that otherwise specified in Rule 20 and/or may establish an emission limit for any air pollutant discharged from the hospital/medical/infectious waste incinerator that is not specified in Rule 20. Good cause shall be deemed to exist in the event that the emission(s) from a source or sources subject to Rule 20 shall be shown by generally accepted scientific, medical, or industry standards to cause an endangerment to the health and safety of persons. The more restrictive emission limit(s), or the limit(s) related to pollutants not specified in Rule 20, to be imposed on a source must be shown by a preponderance of the generally accepted scientific, medical or industry evidence to be necessary and reasonable under the circumstances. Such an emission limit shall be a special condition on any permit or certificate of operation issued to a source after it has been approved by the Board. Violation of the special condition shall be deemed to be a violation of this ordinance.

Rule 20.3. Existing source compliance schedules.

(1) The owner or operator of each hospital/medical/infectious waste incinerator which is a designated facility according to this rule shall satisfy the standards and requirements specified in Rule 20 within fourteen (14) months after [the effective date of this ordinance].

(2) An owner or operator of a designated facility may petition the Director for a later compliance date to complete installation of air pollution control equipment necessary to achieve compliance. Such a petition must be delivered to the Director no later than eight (8) months after [the effective date of this ordinance]. Such a petition must propose a date by which compliance will be achieved that is prior to the earlier of the date three (3) years after [the effective date of this ordinance] or September 15, 2002. Such a petition shall also include documentation of the analyses undertaken to support the need for an extension, including an explanation of the reason(s) compliance cannot be achieved within the first year after EPA approves Rule 20 but can be achieved within the following two years. Such a petition shall also specify measurable and enforceable incremental steps of progress towards compliance. Suggested measurable and enforceable activities include:

a. Date for submitting a petition for site specific operating parameters to be established during the initial performance and to be continuously monitored thereafter for any designated 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 in this rule;

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

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

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

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

f. Date for initiation of site preparation for installation of the air pollution control devices); and

g. Date for initial startup of the air pollution control device(s).

Rule 20.4. Definitions. Words and terms used in Rule 20 but not specifically defined in Rule 20.4 shall have the meaning given them in the Clean Air Act; in Title 40 CFR Part 60 Subparts A and B, which have been incorporated by reference in Chapter 4; or if not specifically defined therein, the meaning given them in the general definitions in Section 4-2 of Chapter 4.

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

(2) *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.

(3) *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.

(4) *Body fluids* means liquids emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

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

(6) *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.

(7) *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.

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

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

(10) *Dioxins/furans* means the combined emissions of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Test Reference Method 23, title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(11) *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.

(12) *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.

(13) *Facilities manager* means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

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

(15) *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.

(16) *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.

(17) *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.

(18) *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.

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

(20) *Large HMIWI* means:

a. Except as provided in (b):

1. An HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour; or

2. A continuous or intermittent HMIWI whose maximum charge rate is more than 500 pounds per hour; or

3. A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day.

b. The following are not large HMIWI:

1. A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 500 pounds per hour; or

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

(21) *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)].

(22) *Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall

continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

(23) *Maximum charge rate* means:

a. 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.

b. 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.

(24) *Maximum design waste burning capacity* means:

a. For intermittent and continuous HMIWI:
$C=P_v$ x 15,000/8,500
Where:
C=HMIWI capacity, lb/hr
P_v=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;

b. For batch HMIWI,
$C=P_v$ x 4.5/8
Where
C=HMIWI capacity, lb/hr
P_v=primary chamber volume, ft^3
4.5=waste density, lb/ft^3
8=typical hours of operation of a batch HMIWI, hours.

(25) *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.

(26) *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.

(27) *Medical/infectious waste* means any waste generated in the diagnosis, treatment, or immunization of human beings or animals; in research pertaining thereto; or in the production or testing of biologicals, that is listed in paragraphs (a) through (g) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in Title 40 CFR Part 261; household waste, as defined in Title 40 CFR § 261.4(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 § 261.4(a)(1).

a. 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.

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

c. Human blood and blood products including:

1. Liquid waste human blood;

2. Products of blood;

3. Items saturated and/or dripping with human blood; or

4. 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.

d. 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.

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

f. 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.

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

(28) *Medium HMIWI* means:

a. Except as provided in paragraph (b):

1. 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

2. 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

3. 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.

b. The following are not medium HMIWI:

1. 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

2. 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.

(29) *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.

(30) *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.

(31) *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.

(32) *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.

(33) *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.

(34) *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.

(35) *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.

(36) *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.

(37) *Modification or Modified HMIWI* means any change to an HMIWI unit after the effective date of these standards such that:

a. The cumulative costs of the modifications, over the life of the unit, exceed 50 percent 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

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

(38) *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.

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

(40) *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, Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4.

(41) *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).

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

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

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

(45) *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.

(46) *Small HMIWI* means:

a. Except as provided in (b):

1. An HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour; or
2. A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or
3. A batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

b. The following are not small HMIWI:

1. A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour;
2. A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day.

(47) *Standard conditions* means a temperature of 20°C and a pressure of 101.3 kilopascals.

(48) *Standard Metropolitan Statistical Area* or *SMSA* means any areas listed in Office of Management and Budget (OMB) Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993, which has been incorporated by reference in Chapter 4.

(49) *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.

(50) *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.

Rule 20.5. Designated Facilities.

(1) Except as provided in Rule 20.5 (2) through (8), the designated facilities to which Rule 20 applies includes each individual HMIWI for which construction was commenced on or before [the effective date of this ordinance].

(2) A combustor is not subject to Rule 20.5 during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (as defined in this rule) is burned, provided the owner or operator of the combustor:

a. Notifies the Director of an exemption claim; and

b. 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.

(3) Any co-fired combustor (defined in this rule) is not subject to this rule if the owner or operator of the co-fired combustor:

a. Notifies the Director of an exemption claim;

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

c. 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.

(4) Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act [Title 42 U.S.C. § 6925] is not subject to Rule 20.

(5) Any combustor which meets the applicability requirements under Title 40 CFR Part 60, Subparts Cb, Ea or Eb, which have been incorporated by reference in Chapter 4, containing standards and guidelines for certain municipal waste combustors, is not subject to Rule 20.

(6) Any pyrolysis unit (defined in Rule 20) is not subject to Rule 20.

(7) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to Rule 20.

(8) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with Rule 20 are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of Rule 20 or the New Source Performance Standard in Section 4-41, Rule 15, which incorporates by reference Title 40 CFR Part 60, Subpart Ec (62 FR 48380; September 15, 1997).

(9) Designated facilities subject to Rule 20 shall operate pursuant to a Part 70 permit issued pursuant to Article III. Part 70 Source Regulation and Permits.

Rule 20.6. Emission Limitations.

(1) Except as provided in Rule 20.6(2), on and after the earlier of the date on which the initial performance test is completed or is required to be completed under Rule 20, no owner or operator of a designated facility shall cause to be discharged into the atmosphere from that facility any gases that contain stack emissions in excess of the limits presented in Table I.

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

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

	percent reduction			
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%

(2) On and after the earlier of the date on which the initial performance test is completed or is required to be completed under Rule 20, no owner or operator of any small HMIWI (defined in Rule 20) which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (defined in Rule 20) and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste shall cause to be discharged into the atmosphere from that facility any gases that contain stack emissions in excess of the limits presented in Table II. The 2,000 lb/week limitation does not apply during performance tests.

TABLE II. EMISSIONS LIMITS FOR CERTAIN SMALL HMIWI

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

(3) On and after the earlier of the date on which the initial performance test is completed or is required to be completed under Rule 20, no owner or operator of a designated facility shall cause to be discharged into the atmosphere from the stack of that facility any gases that exhibit greater than 10 percent opacity (6-minute block average).

(4) On and after the earlier of the date on which the initial performance test is completed or is required to be completed under Rule 20, no owner or operator of a large HMIWI shall cause to be discharged into the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e, 9 minutes per 3-hour period), as determined by EPA Reference Method 22, which has been incorporated in Chapter 4, except as provided in Rule 20.6(5) and (6).

(5) The emission limit specified in Rule 20.6(4) does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(6) The provisions of Rule 20.6(4) do not apply during maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter unless the owner or operator obtains written approval from the Director establishing a date whereby all necessary maintenance and repairs of ash conveying systems shall be completed.

Rule 20.7. Operator Training and Qualification Requirements.

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

(2) Operator training and qualification shall be obtained through a State-approved program, a Director-approved program, or by completing the requirements included in Rule 20.7(3) through (7).

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

a. 24 hours of training on the following subjects:

1. Environmental concerns, including pathogen destruction and types of emissions;

2. Basic combustion principles, including products of combustion;

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

4. Combustion controls and monitoring;

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

6. 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);

7. Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

8. Actions to correct malfunctions or conditions that may lead to malfunctions;

9. Bottom and fly ash characteristics and handling procedures;

10. Applicable Federal, State, and local regulations;

11. Work safety procedures;

12. Pre-startup inspections; and

13. Recordkeeping requirements.

b. An examination designed and administered by the instructor.

c. Reference material distributed to the attendees covering the course topics.

(4) Qualification shall be obtained by:

a. Completion of a training course that satisfies the criteria under Rule 20.7(3); and

b. Either 6 months of experience as an HMIWI operator, 6 months of 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.

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

(6) 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:

a. Update of regulations;

b. Incinerator operation, including startup and shutdown procedures;

c. Inspection and maintenance;

d. Responses to malfunctions or conditions that may lead to malfunction; and

e. Discussion of operating problems encountered by attendees.

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

a. For a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard annual refresher course described in Rule 20.7(6).

b. For a lapse of 3 years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in Rule 20.7(3).

(8) The owner or operator of a designated facility shall maintain documentation at the facility that address the following:

a. Summary of the applicable standards under Rule 20;

b. Description of basic combustion theory applicable to an HMIWI;

c. Procedures for receiving, handling, and charging waste;

d. HMIWI startup, shutdown, and malfunction procedures;

e. Procedures for maintaining proper combustion air supply levels;

f. Procedures for operating the HMIWI and associated air pollution control systems within the standards established under Rule 20;

g. Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

h. Procedures for monitoring HMIWI emissions;

i. Reporting and recordkeeping procedures; and

j. Procedures for handling ash.

(9) The owner or operator of a designated facility shall establish a program for reviewing the information listed in Rule 20.7(9) annually with each HMIWI operator (defined in Rule 20).

a. The initial review of the information listed in Rule 20.7(9) shall be conducted within 6 months after the effective date of Rule 20 or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

b. Subsequent reviews of the information listed in Rule 20.7(9) shall be conducted annually.

(10) The information listed in Rule 20.7(9) 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 U.S. EPA or its delegated enforcement agent upon request.

Rule 20.8. Waste Management Guidelines. The owner or operator of a designated 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", a copy of which is available at the Bureau, shall be considered in the development of the waste management plan.

Rule 20.9. Inspection Guidelines.

(1) Each small HMIWI subject to the emissions limits of Rule 20 shall undergo an initial equipment inspection within fourteen (14) months after [the effective date of this ordinance] and annually thereafter no more than 12 months following the previous annual equipment inspection that, at a minimum, includes the following items:

a. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;

b. Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

c. Inspect hinges and door latches, and lubricate as necessary;

d. Inspect dampers, fans, and blowers for proper operation;

e. Inspect HMIWI door and door gaskets for proper sealing;

f. Inspect motors for proper operation;

g. Inspect primary chamber refractory lining; clean and repair/replace lining as necessary;

h. Inspect incinerator shell for corrosion and/or hot spots;

i. Inspect secondary/tertiary chamber and stack, clean as necessary;

j. Inspect mechanical loader, including limit switches, for proper operation, if applicable;

k. Visually inspect waste bed (grates) and repair or seal as appropriate;

l. For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

m. Inspect air pollution control device(s) for proper operation, if applicable;

n. Inspect waste heat boiler systems to ensure proper operation, if applicable;

o. Inspect bypass stack components;

p. Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and

q. Generally observe that the equipment is maintained in good operating condition.

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

Rule 20.10. Compliance, Performance Testing, and Monitoring Guidelines.

(1) The emission limits in Rule 20 apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the designated facility during startup, shutdown, or malfunction.

(2) The owner or operator of any small HMIWI (defined in Rule 20) subject to emission limits under Rule 20.6 shall conduct an initial performance test to determine compliance with the emission limits in Rule 20.6 and shall meet the following compliance and performance testing requirements, subject to the stated exceptions:

a. The requirement that a small HMIWI burn less than 2,000 pounds per week of hospital and medical/infectious waste does not apply during performance tests.

b. The use of the bypass stack during a performance test shall invalidate the performance test.

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

d. The minimum sample time shall be one hour per test run unless otherwise indicated.

e. EPA Test Reference Method 1, Title 40 CFR Part 60, Appendix A which has been incorporated by reference in Chapter 4, shall be used to select the sampling location and number of traverse points.

f. EPA Test Reference Methods 3 or 3A, Title 40 CFR Part 60, Appendix A, which have been incorporated by reference in Chapter 4, shall be used for gas composition analysis, including measurement of oxygen concentration.

g. The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

C_{adj} = C_{meas} (20.9 – 7)/(20.9 - $\%0_2$) 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 minus 7 percent oxygen (defined oxygen correction basis)
20.9 = oxygen concentration in air, percent; and
$\%0_2$ = oxygen concentration measured on a dry basis, percent.

h. EPA Test Reference Method 5 or Method 29, Title 40 CFR Part 60, Appendix A, which have been incorporated by reference in Chapter 4, shall be used to measure the particulate matter emissions;

i. EPA Test Reference Method 9, Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4, shall be used to measure stack opacity;

j. EPA Test Reference Methods 10 or 10B, Title 40 CFR Part 60, Appendix A, which have been incorporated by reference in Chapter 4, shall be used to measure the CO emissions;

k. EPA Test Reference Method 23, Title 40 CFR Part 60, Appendix A, which has been incorporated by reference in Chapter 4, shall be used to measure total dioxin/furan emissions. The minimum sample time shall be four hours per test run. If the facility has selected the toxic equivalency standards for dioxin/furans, under Rule 20.6, the following procedures shall be used to determine compliance:

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

2. For each dioxin/furan congener measured in accordance with Rule 20.10(k)(l)1., multiply the congener concentration by its corresponding toxic equivalency factor specified in Table III.

3. Sum the products calculated in accordance with Rule 20.10(k)(l)2. to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

TABLE III. 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-hexachlorinated 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
1,2,3,7,7-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

l. EPA Test Reference Method 29, which has been incorporated by reference in Chapter 4, shall be used to measure Hg emissions. If the facility has selected the reduction standards for metals under Rule 20.6, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$(\%R_{metal}) = (E_i - E_0/E_i) \times 100$$

Where:

$\%R_{metal}$ = percentage reduction of metal emission (Hg) achieved

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

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

m. Determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months after the previous performance test) using the applicable procedures and test methods listed in Rule 20.10.

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

o. Following the earlier of the date on which the initial performance test is completed or the date on which it is required to be completed under Title 40 CFR § 60.8, which has been incorporated by reference in Rule 15.1 in Chapter 4, ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown and malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s).

p. Except as provided in Rule 20.10(2)(q), operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

q. The owner or operator of a designated facility may conduct a repeat performance test within 30 days after violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to Rule 20**.**10(2)(q) must be conducted using the identical operating parameters that indicated a violation under Rule 20**.**10(2)(p).

(3) The owner or operator of any designated facility, other than a small HMIWI (defined in Rule 20), subject to emission limits under Rule 20 shall meet the requirements of Rule 20.10(1), (2) (b) through and including (m) and, shall meet the following additional requirements:

a. EPA Test Reference Method 26, which has been incorporated in Chapter 4, shall be used to measure HCl emissions. If the facility has selected the percentage reduction standards for HCl under Rule 20.6, the percentage reduction in HCl emissions ($\%R_{hcl}$) is computed using the following formula:

$(\%R_{HCl}) = (E_i - E_0/E_i) \times 100$

Where:

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

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

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

b. EPA Test Reference Method 29, required in Rule 20.10(2)(l) shall be used to measure Pb, Cd, and Hg emissions. Parenthetical references to Hg following the percentage reduction formula for metals shall include Pb and Cd for these purposes.

c. 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 Rule 20.10 If all three performance tests over a 3-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months following

the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional 2 years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

d. Designated facilities using a CEMS to demonstrate compliance with any of the emission limits in Rule 20 shall:

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

2. Operate all CEMS in accordance with the applicable procedures under Title 40 CFR Part 60, Appendices B and F, which have been incorporated by reference in Chapter 4.

e. The owner or operator of a designated 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 IV in Rule 20, 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 earlier of the date on which the initial performance test is completed or the date it is required to be completed under Title 40 CFR § 60.8, which has been incorporated by reference in Chapter 4, ensure that the designated facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table IV of Rule 20 and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown and malfunction. Operating parameter limits do not apply during performance tests. Operation

above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameters.

f. Except as provided in Rule 20.10(3)(i), for designated facilities equipped with a dry scrubber followed by a fabric filter:

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

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

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

g. Except as provided in Rule 20.10(3)(i), for designated facilities equipped with a wet scrubber:

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

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

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

h. Except as provided in Rule 20.10(3)(i), for designated facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber:

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

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

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

i. The owner or operator of a designated facility may conduct a repeat performance test within 30 days after violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to Rule 20.10(3)(i) shall be conducted using the identical operating parameters that indicated a violation under Rule 20.10(f), (g) or (h).

j. The owner or operator of a designated 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 set scrubber to comply with the emission limits under Rule 20.10 shall petition the Administrator for other site-specific operating parameters to be established during the initial performance test until after the petition has been approved by the Director.

k. The owner or operator of a designated facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Director may request a repeat performance test at any time.

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

Operating Parameters To Be Monitored	Minimum Frequency of Data Measurement	Minimum Frequency Of Data Recording	Dry Scrubber Followed by Fabric Filter	Wet Scrubber	Dry Scrubber Followed by Fabric Filter and Wet Scrubber
Maximum Charge Rate	Continuous	1 x Hour	X	X	X
Maximum Fabric Filter Inlet Temperature	Continuous	1 x Minute	X		X
Maximum Flue Gas Temperature	Continuous	1 x Minute		X	X
Minimum Secondary Chamber Temperature	Continuous	1 x Minute	X	X	X
Minimum Dioxin/Furan Sorbent Flow Rate	Hourly	1 x Hour	X		X
Minimum HCl Sorbent	Hourly	1 x Hour	X		X

Flow Rate					
Minimum Mercury (Hg) Sorbent Flow Rate	Hourly	1 x Hour	X		X
Minimum Pressure Drop across the Wet Scrubber or Minimum Horsepower or Amperage to Wet Scrubber	Continuous	1 x Minute		X	X
Minimum Scrubber Liquor Flow Rate	Continuous	1 x Minute		X	X
Minimum Scrubber Liquor pH	Continuous	1 x Minute		X	X

Rule 20.11. Monitoring Requirements.

(1) The owner or operator of a small HMIWI (defined in Rule 20) shall meet the following monitoring requirements:

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

b. Install, calibrate to manufacturers' specifications, maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

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

(2) The owner or operator of any other designated facility (defined in Rule 20) shall meet the following monitoring requirements:

a. Install, calibrate to manufacturers' specifications, maintain, and operate devices (or establish methods), for monitoring the applicable maximum and minimum operating parameters listed in Table IV in Rule 20 such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table IV at all times except during periods of startup and shutdown.

b. The owner or operator of a designated 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 a designated 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 in Rule 20 shall install, calibrate to the manufacturers' specifications, maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to Rule 20.10(3)(j).

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

Rule 20.12. Reporting and Recordkeeping Requirements.

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

a. Calendar date of each record;

b. Records of the following data:

1. Concentrations of any pollutant listed in Rule 20.6 or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

2. HMIWI charge dates, times, and weights and hourly charge rates;

3. Fabric filter inlet temperatures during each minute of operation, as applicable;

4. Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

5. Amount and type of Hg sorbent used during each hour of operation, as applicable;

6. Amount and type of HCl sorbent used during each hour of operation, as applicable;

7. Secondary chamber temperatures recorded during each minute of operation;

8. Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

9. Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

10. Pressure drop across the wet scrubber system during each minute of operation, as applicable;

11. Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

12. pH at the inlet to the wet scrubber during each minute of operation, as applicable;

13. Records indicating use of the bypass stack, including dates, times and durations; and

14. For designated facilities complying with Rule 20.10(3)(j) and Rule 20.11(2)(c), the owner or operator shall maintain all operating parameter data collected.

c. Identification of calendar days for which data on emission rates or operating parameters specified under Rule 20.12(1)(b) 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.

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

e. Identification of calendar days for which data on emission rates or operating parameters specified under Rule 20.12(1)(b) exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, 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 parameters, as applicable.

g. Records showing the names of HMIWI operators who have completed review of the information in Rule 20.7(8) as required by Rule 20.7(9), including the date of the initial review and all subsequent annual reviews;

h. 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;

i. Records showing the names of the HMIWI operators who have met the criteria for qualification under Rule 20.7 and the dates of their qualification; and

j. Records of calibration of any monitoring devices as required under Rule 20.11(2)(a), (b), and (c).

(2) The owner or operator of a designated facility shall submit the information specified in Rule 20.12(2)(a) through (c) no later than 60 days after completion of the initial performance test. All reports shall be signed by the facilities manager.

a. The initial performance test data as recorded under Rule 20.10(2)(a) through (l), as applicable.

b. The values for the site-specific operating parameters established pursuant to Rule 20.10(e) or (j), as applicable.

(3) The waste management plan as specified in Rule 20.8.

(4) An annual report shall be submitted within one year following the submission of the information in Rule 20.12(3), and subsequent reports shall be submitted no more than 12 months following the submittal of the previous report. Once the unit is subject to permitting requirements under Article III. of Chapter 4, Part 70 Source Regulation and Permits, the owner or operator of a designated facility must submit these reports semiannually. The annual report shall include the information specified in Rule 20.12(4)(a) through (h). All submitted reports shall be signed by the facilities manager.

a. The values for the site-specific operating parameters established pursuant to Rule 20.10(e) or (j), as applicable.

b. 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 Rule 20.10(e) or (j), as applicable.

c. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to Rule 20.10(e) or (j) for the calendar year preceding the year being reported, in order to provide the Director with a summary of the performance of the designated facility over a 2-year period.

d. Any information recorded under Rule 20.12(1)(c) through (e) for the calendar year preceding the year being reported, in order to provide the Director with a summary of the performance of the designated facility over a 2-year period.

e. If a performance test was conducted during the reporting period, the results of that test.

f. If no exceedances or malfunctions were reported under Rule 20.12(1)(c) through (e) for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

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

(5) The owner or operator of a designated facility shall submit semiannual reports containing any information recorded under Rule 20.12(1)(c) through (e) no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of information in rule 20.12(2). Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager.

(6) All records specified under Rule 20.12(1) shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Director.

Rule 21. Ambient Air Quality Standards.

Ambient air quality standards as given in Table 1.

Table I

All values other than annual values are maximum concentrations not to be exceeded more than once per year. Parts per million (PPM) values are approximate only. All concentrations relate to air at standard conditions of 25 degrees centigrade temperature and 760 millimeters mercury pressure.

µg/m^3 - Micrograms per
AGM - Annual geometric mean
AAM - Annual arithmetic cubic meter mean

Contaminants	Primary Standard			Secondary Standard		
	Concentration		Averaging Interval	Concentration		Averaging Interval
	µg/m^3	ppm by volume		µg/m^3	ppm by volume	
Total Suspended Particulates		-- --		 150	-- --	 24 hr.
[1]PM_{10}	50 150		AAM 24 hr.	50 150		AAM 24 hr.
Sulfur Dioxide	80 365	0.03 0.14	AAM 24 hr.	1,300	0.5	3 hr.
Carbon Monoxide	10,000 40,000	9.0 35.0	8 hr. 1 hr.	10,000 40,000	9.0 35.0	8 hr. 1 hr.
[2]Ozone	235	0.12	1 hr	235	0.12	1 hr.
Nitrogen Dioxide	100	0.05	AAM	100	0.05	AAM
Lead	1.5		Calendar Quarter	1.5		Calendar Quarter
[3,4]Gaseous Fluorides				1.2 1.6 2.9	1.5 2.0 3.5	30 days 7 days 24 hours

Expressed as HF				3.7	4.5	12 hours

Notes:

1. The 24-hour standards are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$, as determined by 40 Code of Federal Regulations Part 50, Appendix K, which has been incorporated by reference in Chapter 4, is equal to or less than one. The annual standards are attained when the expected annual arithmetic mean concentration, as determined in accordance with Appendix K as cited above, is less than or equal to 50 $\mu g/m^3$.

2. The standard is attained when the expected number of days per calendar year with maximum hourly concentration above 0.12 ppm (235 $\mu g/m^3$) is equal to or less than 1 as determined by the 40 Code of Federal Regulations Part 50, Appendix H, which has been incorporated by reference in Chapter 4.

3. Concentrations in micrograms per cubic meter ($\mu g/m^3$) are approximate only, as they pertain to gaseous fluorides.

4. All averaging intervals are consecutive time periods.

Rule 22. Good Engineering Practices Stack Heights.

Rule 22.1. General Provisions.

(1) This Rule 22 provides that the degree of emission limitation required of any source for control of any air pollutant must not be affected by that portion of any source's stack height that exceeds good engineering practice (GEP) or any other dispersion technique, except as provided in Rule 22.1(2)(a). Before a new or revised emission limitation that is based on good engineering practice stack height exceeds the height allowed by Rule 22.2(3)(a) or (b), the Director must notify the public of the availability of the demonstration study and must provide opportunity for public hearing on it. This Rule 22 does not restrict in any manner the actual stack height of any source.

(2) The provisions of this Rule 22 shall not apply to stack heights in existence, or dispersion techniques implemented on or before December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by stationary sources which were

constructed, reconstructed, or for which major modifications, as defined in Section 4-2, and were carried out after December 31, 1970.

Rule 22.2. Definitions. As used in this Rule 22, the following definitions shall apply:

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

a. Using that portion of a stack which exceeds good engineering practice stack height;

b. Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or

c. Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise.

The preceding sentence defining *dispersion technique* does not include:

a. 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;

b. The merging of exhaust gas streams where:

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

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

3. Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emissions 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 the 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;

c. Smoke management in agricultural or silvicultural prescribed burning programs;

d. Episodic restrictions on residential woodburning and open burning; or

e. Techniques under Rule 22.2(1)(C) which increase final exhaust gas plume rise where the resulting plant-wide allowable emissions of sulfur dioxide do not exceed 5,000 tons per year.

(2) *Emission limitation* means a requirement established by the Director, 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.

(3) *Good engineering practice* (GEP) stack height means the greater of:

a. 65 meters (213) feet, measured form the ground-level elevation at the base of the stack;

b. Considering other stack criteria the following formulae apply:

1. For stacks in existence on January 12, 1979, and for which the owner or operator had obtained all applicable permits or approvals required,

$$Hg = 2.5H,$$

provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation;

2. For all other stacks;

$$Hg = H + 1.5L,$$

where

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

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

L = lesser dimension, height (H) 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

c. 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.

(4) *Nearby* as used in Rule 22.2(3) is defined for a specific structure or terrain feature and

a. For the purposes of applying the formulae provided in Rule 22.2(3)(b) 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 (1/2 mile), and

b. For conducting demonstrations under Rule 22.2(3)(c) means not greater than 0.8 km (1/2 mile), except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to 10 times the maximum height (H_t) feature achieves a height (h_t) 0.8 km from the stack that is at least 40 percent of the GEP stack height determined by the formulae provided in Rule 19(B)(3)(b)2. or 26 meters (85 feet), whichever is greater, as measured from the ground level elevation at the base of the stack. The height of the structure of terrain feature is measured from the ground-level elevation at the base of the stack.

(5) *Excessive concentration* is defined for the purposes of determining good engineering practice stack height under Rule 22.2(3)(C), and means:

a. For sources seeking credit for stack height exceeding that established under Rule 22.2(3)(b), a maximum ground-level concentration due to emissions from a stack due in part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least 50 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effect and which contributes to a total concentration due to the emissions from all sources that is greater than an ambient air quality standard. For sources subject to Rule 18.2, an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which

individually is at least 50 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes or eddy effects and greater than a prevention of significant deterioration increment. The allowable emission rate to be used in making demonstrations under this rule shall be prescribed by the new source performance standards (NSPS) 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;

b. For sources seeking credit after October 11, 1983, for increases in existing stack heights established under Rule 22.2(3)(b) either:

1. a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effect as provided in Rule 22.2(5)(a), except that the emission rate specified by the State Implementation Plan (or, in absence of such a limit, the actual emission rate) shall be used, or

2. the actual presence of a local nuisance caused by the existing stack, as determined by the director; and

c. For sources seeking credit after January 12, 1979, for a stack height determined under Rule 22.2(3)(b) where the director requires the use of a field study or fluid model to verify GEP stack height; for sources seeking stack height credit after November 9, 1984, based on the aerodynamic influence of cooling towers; and for sources seeking stack height credit after December 31, 1970, based on the aerodynamic influence of structures not adequately represented by the equations in Rule 22.2(3)(b), a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effects that is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

(6) *Stack* for the purpose of good engineering practice 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.

(7) *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 cancelled or modified without substantial loss to the operator, to undertake a program of construction of the stack to be completed in a reasonable time.

Rule 22.3. Good Engineering Practice Stack Height Requirements.

(1) No person shall cause, suffer, allow, or permit emissions in excess of the limitations in this Rule 22.

(2) Upon mutual agreement of the owner or operator of a source and the director, an emission limitation more restrictive than that otherwise specified in this Rule 22 may be established. The mutually acceptable limits shall be stated as a special condition(s) for any permit or certificate concerning the source. Violation of any accepted special limitation is grounds for revocation of the issued certificate of operation and other enforcement measures provided for in law.

(3) The possession of a valid permit or certificate of operation shall not protect the source from enforcement actions if permit or certificate conditions are not met.

Rule 22.4. Specific Emissions Limitations. For any affected air contaminant source or sources at a facility, the director shall specify as special conditions on the installation permit, temporary operating permit, and certificate of operation the emission limitation that is determined to be necessary under the provisions of this Rule 22. Such conditions shall be subjected to a public hearing and incorporated as a revision to the State Implementation Plan.

Rule 23. General Provisions and Applicability for Process Gaseous Emissions Standards.

Rule 23.1. No person shall cause, suffer, allow or permit gaseous emission in excess of the standards provided in this chapter. For the purpose of this Rule 23 the term "process gaseous emission" shall mean any gaseous emission of an air contaminant to the ambient air other than that from fuel-burning equipment, incinerators or open burning.

Rule 23.2. Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after the effective date of this regulation, which is not limited by a specific standard provided elsewhere in this chapter, shall install and utilize equipment and technology which is deemed reasonable and proper by the director.

Rule 24. Reserved.

Rule 25. General Provisions and Applicability for Volatile Organic Compounds.

Rule 25.1. Purpose. It is the purpose of this Rule 25 to establish emission standards for new and existing sources of volatile organic compounds located within the city. The emission standards

established within this rule will apply to different sources depending upon the potential emissions of the source.

Rule 25.2. Definitions. Words or terms defined in Rule 25 are for the purpose of this rule only and will not affect the definitions of section 4-2. Unless specifically defined in this Rule 25, the definitions from section 4-2 will apply:

(1) *Approved* means approved by the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

(2) *Capture system* means the equipment (including hoods, ducts, fans, etc.) used to contain, capture or transport a pollutant to a control device.

(3) *Coating applicator* means an apparatus used to apply a surface coating.

(4) *Coating line* means one (1) or more apparatus or operations, which include a coating applicator, flashoff area, and over, wherein a surface coating is applied, dried and/or cured.

(5) *Commenced* means that an owner operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(6) *Construction* means commencement of on-site fabrication, erection or installation of a new or modified source or facility.

(7) *Control device* means any method, process or equipment which removes or reduces volatile organic compounds (VOC) emissions to the ambient air.

(8) *Continuous vapor control system* means a vapor control system that treats vapors displaced from tanks during filling on a demand basis without intermediate accumulation.

(9) *Day* means a twenty-four-hour period beginning at midnight.

(10) *Emission* means the release or discharge, whether directly or indirectly, of VOC's into the ambient air from any source.

(11) *Existing source* is any process in existence or having an installation permit prior to the effective date of each Rule 25 category.

(12) *Facility* means any building, structure, installation, activity or combination thereof which contains one (1) or more stationary source of air contaminants.

(13) *Flashoff area* means the space between the application area and the oven.

(14) *Incinerator* means a combustion apparatus designed for high temperature operation in which solid, semisolid, liquid or gaseous combustible wastes are ignited and burned efficiently and from which the solid and gaseous residues contain little or no combustible material.

(15) *Intermittent vapor control system* means 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.

(16) *Knife coating* means 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.

(17) *Loading rack* means 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.

(18) *New source* is all other processes not defined in definition (11) as an existing source.

(19) *Organic material* means a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

(20) *Oven* means a chamber within which heat is used to bake, cure, polymerize and/or dry a surface coating.

(21) *Owner or operator* means any person who owns, leases, controls, operates or supervises a facility, existing source, new source or control device.

(22) *Petroleum liquid* means crude oil, condensate and any finished or intermediate products manufactured or extracted in a petroleum refinery.

(23) *Prime coat* means the first film of coating applied to a multiple-coat operation.

(24) *Reid vapor pressure* means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquefied petroleum gases as determined by American

Society for Testing and Materials, D-323-94 Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method), 1994 Annual Book of ASTM Standards Volume 5.01.

(25) *Roll coating* means the application of a coating material to a substrate by means of hard rubber or steel rolls.

(26) *Rotogravure coating* means 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 substance.

(27) *Solvent* means organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers or cleaning agents.

(28) *Standard conditions* means a temperature of twenty (20) degrees centigrade (sixty-eight (68) degrees Fahrenheit) and pressure of seven hundred sixty (760) millimeters of mercury (twenty-nine and ninety-two hundredths (29.92) inches of mercury).

(29) *Top coat* means the final film of coating applied in a multiple-coat operation.

(30) *True vapor pressure* means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from External Floating-Roof Tanks," Third Edition with addendum, May 1994.

(31) *Vapor collection system* means a vapor transport system which uses direct displacement by the liquid loaded to force vapors from the tank into a vapor control system.

(32) *Vapor control system* means a system approved by the director that prevents release to the atmosphere of organic compounds in the vapors displaced from a tank during the transfer of gasoline.

(33) *Reserved.*

Rule 25.3. Standards for new sources.

(1) For the purpose of this Rule 25.3, the following definitions apply:

a. *Lowest achievable emission rate* (also denoted as LAER) means for any source that rate of emissions which reflects:

1. The most stringent emission limitation which is achieved in practice by such class or category of source.

2. In no event shall a new or modified source emit any pollutant in excess of the amount allowable under applicable rules of Rule 15.

This limit will be determined by the director at the time of the permit application.

b. *Potential emissions* means the maximum capacity to emit a pollutant absent air pollution control equipment. Air pollution control equipment includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal product of the source or to its normal operation. Annual potential shall be based on the maximum annual rated capacity of the source unless the source is subject to enforceable permit conditions which limit the operating rate of hour of operation, or both. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the potential emission rate of a source.

(2) New or modified sources identified as having potential emissions of one hundred (100) tons per year or greater shall utilize LAER. All other new or modified sources locating in the county shall utilize BACT. Regardless of the specific emission standards derived from these rules, a new and/or modified source in the county must comply with the provisions of this rule.

a. Attainment and unclassified areas. The director shall not grant a permit or waiver for the construction or modification of any air contaminant source in an attainment or unclassified area if such construction or modification will interfere with the maintenance of an air quality standard or will violate any provision of these regulations or will violate any provision of the Tennessee Air Quality Act.

b. Nonattainment areas. The director shall not grant a permit for construction or modification of any air contaminant source in a nonattainment area nor to any source that significantly impacts on a nonattainment area if such construction or modification will interfere with reasonable further progress in attainment of the specific air quality standards or will violate any provision of the Tennessee Air Quality Act or will violate provisions of these regulations, except in accordance with the following:

1. All new or modified sources shall utilize good engineering practice as determined by the director in designing stacks.

2. New or modified sources with potential emissions of less than one hundred (100) tons per year shall utilize best available control technology (BACT) as specified by the director.

3. New or modified sources identified as having potential emissions of one hundred (100) tons per year or greater shall meet the lowest achievable emission rate (LAER) for that type of source as determined by the director at the time of the permit application. The term "lowest achievable emission rate" means, for, any source, that rate of emissions which reflects:

(i) The most stringent emission limitation which is achieved in practice by such class or category of source.

(ii) In no event shall a new or modified source emit any pollutant in excess of the amount allowable under applicable rules of Rule 15.

4. A major source shall also show that it will not interfere with reasonable further progress in attaining the ambient air quality standards by one (1) of the following methods:

(i) Banked credits.

(A) By agreeing to control the nonattainment emissions to a rate lower than the nonattainment emissions specified as reasonable available control technology (RACT) by the director, the owner or operator of an air contaminant source has reserved the right to utilize the incremental reduction between RACT and the banked credit agreed rate (BCAR) to provide for future growth in the nonattainment area.

(B) The banked credit agreed rate is an emission rate more restrictive than RACT which is mutually agreed to by the director and an air contaminant source for the purpose of establishing a banked credit. This emission level is in no way related to BACT or LAER. Only sources in existence at the time of a nonattainment state implementation plan (SIP) revision for an area are eligible to establish a banked credit agreed rate.

(C) The following limitations shall apply to the issuance of a permit for construction or modification for sources using banked credit agreed rate.

All banked credits in a given nonattainment area shall become void upon official reclassification of that area as an attainment area.

An increase in pounds per hour shall be offset by a banked credit of that amount. The banked credit account will be reduced by that amount.

An air quality modeling review shall show that the banked credit used and the new and/or modified source result in predicted cleaner air for the nonattainment area than air quality at the RACT emission level. No predicted new violations of the ambient air quality standards will be permitted.

A banked credit shall not be used until the banked credit agreed rate level of control is attained by the source involved and demonstrated through another method acceptable to the director.

The banked credit agreed rate shall be contained in the state implementation plan as the legally enforceable standard for the air contaminant source. If the source electing to use banked credits must reduce emissions to achieve the banked credit agreed rate level approved by the board, a compliance schedule shall be included in the state implementation plan revision.

(ii) Emission offsets.

(A) For major sources, a larger than one-to-one offset of emissions of the nonattainment pollutant, based on both allowable and actual emissions shall be employed. This offset must result in a net improvement in predicted air quality for the pollutant in the area under the influence of emissions from the new or modified major sources and that reasonable further progress shall not be hindered.

(B) All or any portions of the offsets shall be accomplished on or before the time of new source operation and demonstrated through a source test or through another method acceptable to the director.

(C) The reductions shall come from sources in the emission inventory used in the approved control strategy for the nonattainment area state implementation plan revision.

(D) The amount of the proposed reduction shall be sufficient to offset both the emission increases directly associated with the proposed source construction and/or modification and those emissions attributed to permitted minor sources that have come into the area since the last reasonable further progress milestone was met.

(iii) Construction or modification of major sources that have no emission offsets or banked credit. The director shall issue a construction permit to proposed new or modified sources provided the sources' emissions will not prevent reasonable further progress in the nonattainment area or will not prevent the ambient air quality standards being met. Completed applications from sources qualifying for this provision will be processed based on the date of receipt of the application by the director.

(iv) Combination of the provisions of subparts (i), (ii) and (iii) of this part.

5. Prior to the issuance of a permit to a major volatile organic compound (VOC) source in Hamilton, an analysis of alternate sites, sizes, production process and environmental control techniques for the proposed source shall be made. A permit shall only be issued if the benefits of the proposed source significantly outweigh the environmental and social costs imposed on the public as a result of the source's location, construction or modification in this county. The director shall require the submittal of such information as he deems necessary for this analysis.

6. A source is identified as a major source for each pollutant as indicated below:

A major source for volatile organic compounds is a source with potential emissions of more than one hundred (100) tons per year and allowable emissions (based on BACT) greater than any of the following: fifty (50) tons per year; one thousand (1,000) pounds per day; or one hundred (100) pounds per hour.

Piecemeal construction is cumulative.

When an air contaminant source's new and/or modified allowable emissions equals or exceeds the above levels, it becomes a major source.

"Potential emissions" as used above means the capability at maximum capacity to emit a pollutant in the absence of air pollution control equipment. Air pollution control equipment includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal product of the source or to its

normal operation. Annual potential shall be based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the annual hours of operation. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the potential emission rate of a source.

7. The director shall not issue a permit to any major source in or significantly impacting a nonattainment area unless all other sources owned or operated by the applicant anywhere in the state are in compliance or on an approved compliance schedule.

(3) If new or modified sources at a facility occurring since February 16, 1979, or since the time of the last construction approval issued requiring LAER under this rule total to more than one hundred (100) tons per year potential emissions, all the new and modified sources during the period shall utilize LAER. The stage of construction and the ability of the source to install additional control equipment shall be considered in determining LAER.

(4) No emissions credit may be allowed for replacing one volatile organic compound (VOC) with another of lesser reactivity.

Rule 25.4. Alternate emission limitation.

(1) Plants with process emission sources regulated by this Rule 25 with a certificate of alternate control shall not emit volatile organic compounds in excess of the limits on such certificate. This limitation is in lieu of the emission limitation contained in other rules of this chapter. Only sources with an emission limitation in Rule 25 are eligible for inclusion in the certificate.

(2) The owner or operator of any plant having process emission sources regulated by Rule 25 can apply to the director for a certificate of alternate control for a plant and the director may grant the request if the following conditions are met:

a. The plant is reducing, or will be after a specified date taking actions to reduce, emissions of volatile organic compounds at least as much as is required under the other rules in this Rule 25, even though specific process emission sources in the plant may not be meeting the limitations specified in the other rules of this Rule 25.

b. If a specified future date for compliance is involved, this date must be as expeditious as is practicable and be specified in a schedule of compliance as a condition on the

certificate. This schedule must conform with the requirements of paragraphs (c) and (d) of Rule 25.42 for individual compliance schedules.

c. There must be reasonable means for the director or his representatives to determine that this alternative emission control method is being implemented and complied with.

d. A fee of two hundred fifty dollars ($250.00) has been paid to the bureau at the time application is made to cover the cost of review of the request for the certificate of alternate control.

e. All process emission sources commenced on or after the effective date of a rule or rules in Rules 15 and 18.2 of this section, and the requirements of section 4-8(f) limiting emissions of volatile organic compounds are meeting the limits specified in those rules.

f. No credit can be given for reduction of emissions in determining if the requirements of subparagraph a. of this paragraph are met if another rule would require that reduction anyway.

(3) Alternate emission control limitations approved under this section must be subjected to a public hearing and incorporated as a revision to the state implementation plan. The owner or operator requesting this alternate emission control limitation shall be responsible for all costs associated with publishing the required legal notices.

(4) The owner or operator of the plant must:

a. File or post on the operating premises the certificate of alternate control;

b. Keep all pollution control equipment in good operating condition and utilize such equipment at all times;

c. Meet other conditions specified in accordance with Rule 25.4(8).

(5) The certificate of alternate control may be revoked by the board if it is found that any of the requirements of this section have been violated or the board may enforce this section by seeking any other remedy available under this chapter or at law.

(6) The certificate of alternate control does not relieve the owner or operator of the duty to meet all emission requirements in other rules for process emission sources commenced after the effective date of the rule.

(7) Upon revocation of the certificate of alternate control, the process emission sources at the plant must comply with all other rules in this chapter that would have been applicable had the certificate not been issued. The board may specify a time period for the source to come into compliance with the more restrictive emission limitations.

(8) The certificate of alternate control may specify alternate test methods to determine compliance or different averaging times (so long as this time does not exceed eight (8) hours) or may contain other conditions appropriate to insure compliance with the alternate control method and the meeting of compliance on the date specified in accordance with subparagraph (2)b. of this rule. The certificate must contain, as conditions, specific standards for each emission source involved.

Rule 25.5. Automobile and light-duty truck manufacturing.

(1) For the purpose of this Rule 25.5, the following definitions apply:

a. *Application area* means the area where the coating is applied by dipping or spraying.

b. *Manufacturing plant* is an assembly plant which coats and assembles parts supplied by a variety of sources producing a finished vehicle ready for sale to vehicle dealers. Customizers, body shops and other repainters are not part of this definition.

c. *Automobile* means all passenger cars or passenger car derivatives capable of seating twelve (12) or fewer passengers.

d. *Light-duty trucks* means any motor vehicle rated at three thousand eight hundred sixty-four (3,864) kilograms (eight thousand five hundred (8,500) pounds) gross weight or less which are designed primarily for the purpose of transportation or are derivatives of such vehicles.

(2) No owner or operator of an automotive or light-duty truck manufacturing plant subject to this Rule 25.5 may cause, suffer, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of the following except as provided in Rules 25.4, 25.41 or 25.42.

a. One hundred forty-five thousands (0.145) kilograms per liter of coating (one and two-tenths (1.2) pounds per gallon), excluding water, delivered to the applicator from prime coat application, flashoff area and oven operations.

b. Thirty-four hundredths (0.34) kilograms per liter of coating (two and eight-tenths (2.8) pounds per gallon) excluding water, delivered to the applicator from surfacer application, flashoff area and oven operations.

c. Thirty-four hundredths (0.34) kilograms per liter of coating (two and eight-tenths (2.8) pounds per gallon), excluding water, delivered to the applicator from topcoat application, flashoff area and oven operations.

d. Fifty-eight hundredths (0.58) kilograms per liter of coating (four and eight-tenths (4.8) pounds per gallon), excluding water, delivered to the applicator from final repair application, flashoff area and oven operations.

(3) This Rule 25.5 will apply to facilities having potential VOC emissions from automobile and light-duty truck manufacturing of twenty-five (25) tons per year or greater.

Rule 25.6. Paper coating.

(1) For the purpose of this Rule 25.6, the following definitions apply:

a. *Coating* means the operation where the coating formulation is distributed uniformly across the substrate.

b. *Paper coating* means coating put on paper and pressure sensitive tapes regardless of substrate. The main coating devices are knives, rollers or rotogravure devices. Related web coating processes on plastic film and decorative coatings on metal foil are included in this definition. Combined operations where a single machine prints and coats or prints and laminates in line are not part of this definition.

(2) This Rule 25.6 will apply, in accordance with Rule 25.6(3), to roll, knife or rotogravure coaters and drying ovens of paper coating lines.

(3) No owner or operator of a paper coating line subject to this Rule 25.6 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of thirty-five hundredths (0.35) kilograms per liter of coating (two and nine-tenths (2.9) pounds per gallon excluding water, delivered to the coating applicator from a paper coating line except as provided in Rules 25.4, 25.41 or 25.42.

Rule 25.7. Petroleum liquid storage.

(1) For the purpose of this Rule 25.7, the following definitions apply:

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

b. *Crude oil* means a naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen and/or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.

c. *Custody transfer* means the transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic facilities to pipelines or any other forms of transportation.

d. *External floating roof* means 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 shell.

e. *Internal floating roof* means 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.

f. *Petroleum refinery* means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of crude oils, or through redistillation, cracking, extraction or reforming of unfinished petroleum derivatives.

(2) This Rule 25.7 will apply to all fixed roof storage vessels with capacities greater than forty-two thousand (42,000) gallons containing volatile petroleum liquids whose true vapor pressure is greater than 10.5 kPa (1.52 psia).

(3) This Rule 25.7 will not apply to volatile petroleum liquid storage vessels:

a. Equipped with floating roofs before January 1, 1979; or

b. Having capacities less than four hundred twenty thousand (420,000) gallons used to store produced crude oil and condensate prior to lease custody transfer.

(4) Except as provided under paragraph (3) of this rule, no owner or operator of an affected source under paragraph (2) of this Rule 25.7 shall permit the use of such source except as provided in Rule 25.41 unless:

a. The source has been retrofitted with an internal floating roof equipped with a closure seal or seals to close the space between the roof edge and tank wall;

b. The source has been retrofitted with equally effective alternative control, approved by the director;

c. The source is maintained such that there are no visible holes, tears or other openings in the seal or any seal fabric or materials;

d. All openings, except stub drains are equipped with covers, lids or seals such that:
1. The cover, lid or seal is in the closed position at all times except when in actual use;
2. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supposes; and
3. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;

e. Routine inspections are conducted through roof hatches once per month;

f. A complete inspection of cover and seal is conducted as specified by the director; and

g. Records are maintained as specified by the director.

Rule 25.8. Bulk gasoline plants.

(1) For the purpose of this Rule 25.8, the following definitions apply:

a. *Bottom filling* means the filling of a tank truck through an opening or nozzle located either flush with or near the bottom of the tank compartment or the filling of a stationary storage tank through a shell nozzle located in conformance with "API Standard 650 Welded Steel Tanks for Oil Storage; Section 3.6.3, Shell Nozzles" or the equivalent as approved by the director.

b. *Bulk gasoline plant* means a gasoline storage and distribution facility with an annual average daily throughout of less than seventy-six thousand (76,000) liters (twenty thousand (20,000) gallons) 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 service stations.

c. *Gasoline* means any petroleum distillate having a Reid vapor pressure of 27.6 kPa (4 psia) or greater.

d. *Splash fiIling* means the filling of a tank truck or stationary storage tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

e. *Submerged filling* means the following for the specified sources:

1. Tank trucks. Filling with a drop tube which extends within six (6) inches of the bottom of the compartment.

2. Terminal or bulk plant storage tanks. Filling through an outlet located in accordance with "API Standard 650 Welded Steel Tanks for Oil Storage; Section 3.6.3 Shell Nozzles" or the equivalent as approved by the director.

f. *Vapor balance systems* means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(2) This Rule 25.8 will apply, in accordance with Rule 25.41, to the unloading, loading and storage facilities of all bulk gasoline plants and all tank trucks or trailers delivering or receiving gasoline at bulk gasoline plants.

(3) This Rule 25.8 will not apply to:

a. Stationary storage tanks of less than two thousand (2,000) gallons capacity; or

b. Bulk plants in the county with less than four thousand (4,000) gallons per day annual average throughout, provided records of throughput are maintained and reported to the director as specified by the director.

(4) Except as provided under paragraph (3) of this Rule 25.8, no owner or operator of a bulk gasoline plant (tank truck or trailer) shall load gasoline into a stationary storage tank from a tank

truck, trailer or other stationary storage tank unless each tank and truck or trailer is equipped with a vapor balance system as described under paragraph (7) of this rule.

(5) Except as provided under paragraph (3) of this Rule 25.8, no owner or operator of a bulk gasoline plant, tank truck or trailer shall unload gasoline from a stationary tank into a tank truck or trailer unless a bottom filling or submerged filling system or its equivalent is installed at the bulk plant.

(6) No owner, or operator of a bulk gasoline plant, tank truck or trailer shall permit the transfer of gasoline between a tank truck or trailer and a stationary storage tank unless the equipment required in paragraph (4) and (5) is installed and properly operated to minimize the loss of VOC emissions.

(7) Vapor balance systems required under paragraph (4) of this Rule 25.8 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 eliminate back flow so as to prevent release of organic material;

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 material; and

c. A vapor space connection on the tank truck or trailer equipped with fittings which are vapor tight and must be closed prior to disconnection so as to prevent release of organic material.

(8) No owner or operator of a bulk gasoline plant may permit gasoline to be stored in open containers or handled in any other manner that would result in evaporation.

Rule 25.9. Bulk gasoline terminals.

(1) For the purpose of this Rule 25.9, the following definitions apply:

a. *Bulk gasoline terminal* means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship or barge and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck, and has an annual average daily throughput of more than seventy-six thousand (76,000) liters (twenty thousand (20,000) gallons) of gasoline.

b. *Gasoline* means a petroleum distillate having a Reid vapor pressure of 27.6 kPa (4 psia) or greater.

(2) This Rule 25.9 will apply, in accordance with Rule 25.41, to bulk gasoline terminals and the appurtenant equipment necessary to load the tank truck or trailer compartments.

(3) No person may load gasoline into any tank trucks or trailers from any bulk gasoline terminals unless:

a. The bulk gasoline terminal is equipped with a vapor control system capable of complying with paragraph (4) of this rule properly installed, in good working order, in operation and consisting of one (1) of the following:

1. An absorber or condensation system which processes and recovers vapors and gases from the equipment being controlled;

2. A vapor collection system which directs all vapors to a fuel gas system;

3. A control system, demonstrated to have control efficiency equivalent to or greater than parts (3)a. 1. or (3)a. 2. of this section and approved by the director; and

b. All displaced vapors and gases are vented only to the vapor control system;

c. Loading devices must not leak when in use and should be designed and operated to allow no more than ten (10) cubic centimeters drainage per disconnect on the basis of five (5) consecutive disconnects; and

d. All loading and vapor lines are equipped with fittings which are vapor-tight.

(4) Sources affected under subparagraph (3)a. may not allow mass emissions of volatile organic compounds from control equipment to exceed eighty (80) milligrams per liter (four and seven-tenths (4.7) grains per gallon) of gasoline loaded.

(5) Sources affected under paragraph (2) may not:

a. Allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation; or

b. Allow the pressure in the vapor-collection system to exceed the tank truck or trailer pressure relief settings.

Rule 25.10. Reserved.

Rule 25.11. Petroleum refinery sources.

(1) For the purposes of this Rule 25.11, the following definitions apply:

a. *Accumulator* means the reservoir of a condensing unit receiving the condensate from the condenser.

b. *Condenser* means 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.

c. *Firebox* means the chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

d. *Forebays* mean the primary sections of a waste water separator.

e. *Hot well* means the reservoir of a condensing unit receiving the warm condensate from the condenser.

f. *Petroleum refinery* means 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.

g. *Refinery fuel gas* means 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.

h. *Turnaround* means 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.

i. *Vacuum-producing system* means any reciprocating, rotary or centrifugal blower or compressor, or any jet ejector device that takes suction from a pressure below atmospheric and discharges against atmospheric pressure.

j. *Vapor recovery system* means a system that prevents release to the atmosphere of no less than ninety (90) percent by weight of organic compounds emitted during the operation of any transfer, storage or process equipment.

k. *Waste water (oil/water) separator* means any device or piece of equipment which utilizes the difference in density between oil and water to remove oil and associated chemicals from water or any device, such as flocculation tank, clarifier, etc., which removes petroleum-derived compounds from waste water.

(2) This Rule 25.11 will apply, in accordance with Rule 25.41, to vacuum-producing systems, waste water separators and process unit turnarounds at petroleum refineries.

(3) a. The owner or operator of any vacuum-producing systems at a petroleum refinery may not permit the emission of any noncondensable volatile organic compounds from the condensers, hot wells or accumulators of the system.

b. The emission limit under subparagraph (3)a. of this Rule 25.11 shall be achieved by:

1. Piping the noncondensable vapors to a firebox or incinerator; or

2. Compressing the vapors and adding them to the refinery fuel gas.

(4) The owner or operators of any waste water (oil/water) separators at a petroleum refinery shall:

a. Provide covers and seals approved by the director on all separators and forebays; and

b. Equip all openings in covers, separators and forebays with lids or seals such that the lids or seals are in the closed position at all times except when in actual use.

(5) Before February 1, 1980, the owner or operator of a petroleum refinery shall develop and submit to the director for approval a detailed procedure for minimization of volatile organic compound emissions during process unit turnaround. As a minimum, the procedure shall provide for:

a. Depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox;

b. No emission of volatile organic compounds from a process unit or vessel until its internal pressure is 136 kilo Pascals (19.7 psia) or less; and

c. Recordkeeping as specified by the director.

Rule 25.12. Can coating.

(1) For the purpose of this Rule 25.12, the following definitions apply:

a. *End sealing compound* means a synthetic rubber compound which is coated onto can ends and which functions as a gasket when the end is assembled on the can.

b. *Exterior base coating* means 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.

c. *Interior base coating* means a coating applied by roller coating or spray to the interior of a can to provide a protective lining between the can metal and product.

d. *Interior body spray* means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

e. *Overvarnish* means a coating applied directly over the ink to reduce the coefficient of friction, to provide gloss and to protect the finish against abrasion and corrosion.

f. *Three-piece can side-seam spray* means a coating sprayed on the exterior and interior of a welded, cemented or soldered seam to protect the exposed metal.

g. *Two-piece can exterior end coating* means a coating applied by roller coating or spraying to the exterior end of a can to provide protection to the metal.

(2) This Rule 25.12 will apply, in accordance with Rule 25.18(3) to coating applicators and ovens 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 side-seam spray and end sealing compound operations.

(3) No owner or operator of a can coating line subject to this Rule 25.12 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds, except as provided in Rule 25.41, in excess of:

a. Thirty-four hundredths (0.34) kilograms per liter of coating (two and eight-tenths (2.8) pounds per gallon), excluding water, delivered to the coating applicator from sheet basecoat (exterior and interior) and overvarnish or two-piece can exterior (basecoat and overvarnish) operations.

b. Fifty-one hundredths (0.51) kilograms per liter of coating (four and two-tenths (4.2) pounds per gallon), 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.

c. Sixty-six hundredths (0.66) kilograms per liter of coating (five and five-tenths (5.5) pounds per gallon), excluding water, delivered to the coating applicator from three-piece can side-seam spray operations.

d. Forty-four hundredths (0.44) kilograms per liter of coating (three and seven-tenths (3.7) pounds per gallon), excluding water, delivered to the coating applicator from end sealing compound operations.

(4) This Rule 25.12 will apply to facilities having potential VOC emissions from can coating of twenty-five (25) tons per year or greater.

Rule 25.13. Coil coating.

(1) For the purpose of this Rule 25.13, the following definitions apply:

a. *Coil coating* means the coating of any flat metal sheet or strip that comes in rolls or coils.

b. *Quench area* means a chamber where the hot metal exiting the oven is cooled by either a spray of water or a blast of air followed by water cooling.

(2) This Rule 25.13 will apply, in accordance with Rule 25.13(3), to the coating applicators, ovens and quench areas of coil coating lines involved in prime and top coat or single coat operations.

(3) No owner or operator of a coil coating line subject to this Rule 25.13 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of thirty-one hundredths (0.31) kilograms per liter of coating (two and six-tenths (2.6) pounds per gallon excluding water, delivered to the coating applicator from prime and topcoat or single coat operations except as provided in Rule 25.41.

(4) This Rule 25.13 will apply to facilities having potential VOC emissions from can coating of twenty-five (25) tons per year or greater.

Rule 25.14. Fabric and vinyl coatings.

(1) For the purpose of this Rule 25.14, the following definitions apply:

a. *Fabric coating* means 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 repellancy, or appearance.

b. *Vinyl coating* means applying a decorative or protective topcoat, or printing on vinyl-coated fabric or vinyl sheets.

(2) This Rule 25.14 will apply, in accordance with Rule 25.14(3), to roll, knife or rotogravure coaters and drying ovens of fabric and vinyl coating lines.

(3) No owner or operator of a fabric coating line or a vinyl coating line subject to this Rule 25.14 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds except as provided in Rule 25.14 in excess of:

a. Thirty-five hundredths (0.35) kilograms per liter of coating (two and nine-tenths (2.9) pounds per gallon), excluding water, delivered to the coating applicator from a fabric coating line.

b. Forty-five hundredths (0.45) kilograms per liter of coating (three and eight-tenths (3.8) pounds per gallon, excluding water, delivered to the coating applicator from a vinyl coating line.

(4) This Rule 25.14 will apply to facilities having potential VOC emissions from fabric and vinyl coating of twenty-five (25) tons per year or greater.

Rule 25.15. Metal furniture coating.

(1) For the purpose of this Rule 25.15, the following definitions apply:

a. *Application area* means the area where the coating is applied by spraying, dipping or flowcoating techniques.

b. *Metal furniture coating* means 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.

(2) This Rule 25.15 will apply, in accordance with Rule 25.15(3), to the application areas, flashoff areas and ovens of metal furniture coating lines involved in prime and topcoat or single coating operations.

(3) No owner or operator of a metal furniture coating line subject to this Rule 25.15 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of thirty-six hundredths (0.36) kilograms per liter of coating (three (33) pounds per gallon excluding, water, delivered to the coating applicator from prime and topcoat or single coat operations except as provided in Rule 25.41.

(4) This Rule 25.15 will apply to facilities having the potential VOC emissions from metal furniture coating of twenty-five (25) tons per year or greater.

(5) This Rule 25.15 shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly.

Rule 25.16. Surface coating of large appliances.

(1) For the purpose of this Rule 25.16, the following definitions apply:

a. *Application area* means the area where the coating is applied by spraying, dipping or flowcoating techniques.

b. *Single coat* means a single film of coating applied directly to the metal substrate, omitting the primer application.

c. *Large appliances* means 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.

(2) This Rule 25.16 will not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly.

(3) This Rule 25.16 will apply, in accordance with Rule 25.16(4), to the application areas, flashoff areas and ovens of large appliance coating lines involved in prime, single or topcoat coating operations.

(4) No owner or operator of a large appliance coating line subject to this Rule 25.16 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of thirty-four hundredths (0.34) kilograms per liter of coating (two and eight-tenths (2.8) pounds per gallon), excluding water, delivered to the coating applicator from prime, single or topcoat coating operations except as provided in Rule 25.41.

(5) This Rule 25.16 will apply to facilities having potential VOC emissions from surface coating of large appliances of twenty-five (25) tons per year or greater.

Rule 25.17. Magnet wire coating.

(1) For the purpose of this Rule 25.17, the following definition applies:

Magnet wire coating means the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

(2) No owner or operator of a magnet wire coating oven subject to this Rule 25.17 may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of twenty hundredths (0.20) kilograms per liter of coating (one and seven-tenths (1.7) pounds per gallon), excluding water, delivered to the coating applicator from magnet wire coating operations except as provided in Rule 25.41.

(3) This Rule 25.17 will apply to facilities having potential VOC emissions from magnet wire coating of twenty-five (25) tons per year or greater.

Rule 25.18. Solvent metal cleaning.

(1) For the purpose of this Rule 25.18, the following definitions apply:

a. *Cold cleaning* means the batch process of cleaning and removing greasy soils from metal surfaces by spraying, brushing, flushing or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

b. *Conveyorized degreasing* means the continuous process of cleaning and removing greasy soils from metal surfaces by operating with either cold or vaporized solvents.

c. *Freeboard height* means the distance from the top of the vapor zone to the top of the degreaser tank for vapor degreasers and from the liquid surface to the top of degreaser toner for cold cleaners.

d. *Freeboard ratio* means the freeboard height divided by the width of the degreaser.

e. *Open top vapor degreasing* means the batch process of cleaning and removing greasy soils from metal surfaces in an open top tank by condensing hot solvent vapor on the colder metal parts.

f. *Solvent metal cleaning* means the process of cleaning greasy soils from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

(2) The provisions of this Rule 25.18 shall apply, in accordance with Rule 25.41, with the following exceptions:

a. Open top vapor degreasers with an open area smaller than one (1) square meter (ten and eight-tenths (10.8) square feet) shall be exempt from parts (5)c.2. and (5)c.4. of this rule;

b. Conveyorized degreasers with an air/vapor interface smaller than two (2.0) square meters (twenty-one and six-tenths (21.6) square feet) shall be exempt from subparagraph (6)b. of this rule.

(3) This Rule 25.18 will apply to facilities having potential VOC emissions from solvent metal cleaning of twenty-five (25) tons per year or greater.

(4) Except as provided under paragraphs (2) and (3) of this rule, the owner or operator of a cold cleaning facility shall:

a. Equip the cleaner with a cover;

b. Equip the cleaner with a facility for draining cleaned parts;

c. Provide a permanent, conspicuous label, summarizing the operating requirements;

d. Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party such that greater than twenty (20) percent of the waste solvent (by weight) can evaporate into the atmosphere;

e. Close the cover whenever parts are not being handled in the cleaner;

f. Drain the cleaned parts for at least fifteen (15) seconds or until dripping ceases; and

g. If used, supply 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.

(5) Except as provided under paragraph (2) of this Rule 25.18, the owner or operator of an open top vapor degreaser shall:

a. Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;

b. Keep the cover closed at all times except when processing work loads through the degreaser;

c. Minimum solvent carryout by:

1. Racking parts to allow complete drainage;

2. Moving parts in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);

3. Holding the parts in the vapor zone at least thirty (30) seconds or until condensation ceases;

4. Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone;

5. Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;

d. Not degrease porous or absorbed materials such as cloth, leather, wood or rope:

e. Not occupy more than half of the degreaser's open top area with a workload;

f. Not load the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload enters the vapor zone;

g. Always spray below the vapor level;

h. Repair solvent leaks immediately or shut down the degreaser;

i. Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party such that greater than twenty (20) percent of the waste solvent (by weight) can evaporate into the atmosphere;

j. Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator;

k. Not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area, unless necessary to meet OSHA requirements; and

l. Provide a permanent, conspicuous label summarizing the operating procedures of subparagraphs (5)b. through (5)j. of this rule.

(6) Except as provided under paragraph (3) of this Rule 25.18, the owner or operator of a conveyorized degreaser shall:

a. Not use workplace fans near the degreaser opening, nor provide exhaust ventilation exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot of degreaser opening, unless necessary to meet OSHA requirements;

b. Equip the cleaner with equipment such as drying tunnel or rotating (tumbling) basket sufficient to prevent cleaned parts from carrying out solvent liquid or vapor;

c. Minimize openings during operation so that entrances and exits will silhouette workloads with an average clearance between the largest parts and the edge of the degreaser opening of less than ten (10) centimeters (four (4) inches) or less than ten (10) percent of the width of the opening;

d. Provide downtime covers for closing off the entrance and exit during shutdown hours;

e. Minimize carryout emissions by:

1. Racking parts for best drainage; and

2. Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);

f. Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party such that greater than twenty (20) percent of the waste solvent (by weight) can evaporate into the atmosphere;

g. Repair solvent leaks immediately or shut down the degreaser;

h. Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and

i. Place downtime covers over entrances and exits of conveyorized degreasers immediately after the conveyors and exhausts are shut down and not remove them until just before startup.

Rule 25.19. Cutback asphalt.

(1) For the purpose of this Rule 25.19, the following definitions apply:

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

b. *Cutback asphalt* means 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.

c. *Penetrating prime* coat means 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 course. It also reduces the necessity of maintaining an untreated based course prior to placing the asphalt pavement.

(2) No person may cause, allow or permit the use or application of cutback asphalts for paving purposes in urban counties except for:

a. Long-term stockpile storage;

b. Application when the ambient temperature is less than fifty (50) degrees Fahrenheit within four (4) hours after the time of application;

c. Use as a penetrating prime coat; or

d. Use for base stabilization.

Rule 25.20. Reserved.

Rule 25.21. Surface coating of miscellaneous metal parts and products.

(1) For the purpose of this rule, the following definitions apply:

a. *Air dried coating* is a coating which is dried by the use of air or forced warm air at temperatures up to ninety (90) degrees Celsius (one hundred ninety-four (194) degrees Fahrenheit);

b. *Clear coating* is a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color;

c. *Extreme performance coating* is a coating designed for extreme environmental conditions;

d. *Extreme environmental conditions* is exposure to outdoor conditions most of the time, temperatures consistently above ninety-five (95) degrees Celsius, detergents, abrasive and scouring agents, solvents, corrosive atmospheres or similar environmental conditions;

e. *Coating operation* includes all equipment which applies, conveys and dries a surface coating, including, but not limited to, spray booths, flow coaters, flashoff areas, air dryers and ovens;

f. *Top coating* includes all coatings other than prime coatings.

(2) No owner or operator of a coating operation subject to this rule may cause, suffer, allow or permit the discharge into the atmosphere of any volatile organic compounds from that operation in excess of the following, except as provided for in Rule 25.4 or 25.42 or paragraph (7) of this rule:

a. 0.52 kg/l (4.3 lb/gal) of coating, excluding water, delivered to a coating applicator in a clear coating operation;

b. 0.43kg/1 (3.5 lb/gal) of coating, excluding water, delivered to a coating applicator in an air dried coating operation;

c. 0.43kg/1 (3.5 lb/gal) of coating, excluding water, delivered to a coating applicator in an extreme performance coating operation; or

d. 0.36kg/1 (3.0 lb/gal) of coating, excluding water, delivered to a coating applicator in all other coating operations.

(3) If more than one (1) emission limitation in paragraph (2) applies to a specific coating operation, then the least stringent emission limitation shall be applied.

(4) This rule applies to surface coating of the following miscellaneous metal parts and products:

a. Large farm machinery (harvesting, fertilizing and planting machines, tractors, combines, etc.;

b. Small farm machinery (lawn and garden tractors, lawn mowers, rototillers, etc.);

c. Small appliances (fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.);

d. Commercial machinery (office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.);

e. Industrial machinery (pumps, compressors, conveyor components, fans, blowers, transformers, etc.);

f. Fabricated metal products (metal covered doors, frames, etc.);

g. 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 (non-electric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments) and Major Group 39 (miscellaneous manufacturing industries).

(5) This Rule 25.21 does not apply to the surface coating of the following metal parts and products:

a. Automobile and light-duty truck manufacturing plants subject to Rule 25.5;

b. Metal cans;

c. Flat metal sheets and strips in the form of rolls or coils;

d. Magnet wire for use in electrical machinery;

e. Metal furniture;

f. Large appliances;

g. Exterior surface areas of airplanes;

h. Automobile refinishing;

i. Customized top coating of automobiles and truck, if production is less than thirty-five (35) vehicles per day;

j. Exterior surfaces of marine vessels; and

k. Storage vessels.

(6) This rule applies to facilities having potential volatile organic compound emissions of twenty-five (25) or more tons per year from coating operations not otherwise exempt from this rule.

(7) The owner or operator of a coating operation subject to this rule shall:

a. Meet the applicable increments of progress in the following schedule:

1. Submit final plans for the emission control technique before April 1, 1983;

2. Award contracts or purchase orders before July 1, 1983;

3. Initiate on-site construction or installation before December 1, 1983;

4. Complete on-site construction or installation before December 1, 1984;

5. Achieve final compliance before December 31, 1984;

b. Certify to the director within twenty (20) days after each deadline for each applicable increment of progress whether the required increment has been met.

(8) Proof of compliance with the standards of this rule shall be provided by:

a. Methods approved by the director and consistent with:

1. EPA Guideline Series document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-0041;

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; and

3. Rules 25.43, 25.44 and 25.45;

b. Certification by the manufacturer of the composition of coatings, if supported by batch formulation records and approved by the director, may be accepted as the coatings analyses;

c. Monitoring of process equipment and emission control equipment as required by the director to confirm continued compliance.

Rules 25.22 through 25.26. Reserved.

Rules 25.27. Manufacture of synthesized pharmaceutical products.

(1) For the purpose of this rule, the following definitions apply:

a. *Synthesized pharmaceutical manufacturing* is the manufacture of pharmaceutical products by chemical synthesis;

b. *Condenser* is a device which cools a gas stream to a temperature which removes organic compounds by condensation:

c. *Control system* is any number of control devices, including condensers, which are designed and operated to reduce the quantity of volatile organic compounds emitted to the atmosphere.

d. *Exhaust system* is a device for collecting and directing out of the work area volatile organic compound fugitive emissions from the reactor openings, centrifuge openings, and other vessel openings for the purpose of protecting workers from excessive volatile organic compounds exposure;

e. *Reactor* is a vat or vessel which may be jacketed to allow temperature control and is designed to contain chemical reactions.

(2) No owner or operator of a synthesized pharmaceutical manufacturing facility subject to this rule may cause, suffer, allow or permit the discharge into the atmosphere of any volatile organic compounds from that facility, except as provided in Rule 25.4 or 25.42 or paragraph (4) of this rule, unless:

a. From reactors, distillation operations, crystallizers, centrifuges and vacuum dryers that have the potential to emit 6.80kg/day (15 lb/day) or more of volatile organic compounds, condensers or equivalent control systems shall be used, provided that:

1. If condensers are used, the condenser outlet gas temperature must not exceed:

(i) -25^{0}C when condensing volatile organic compounds of vapor pressure greater than 40.0 kPa (5.8 psi) at 20^{0}C;

(ii) -15^{0}C when condensing volatile organic compounds of vapor pressure greater than 20.0 kPa (2.9 psi) at 20^{0}C;

(iii) -0^{0}C when condensing volatile organic compounds of vapor pressure greater than 10.0 kPa (1.5 psi) at 20^{0}C;

(iv) 10^{0}C when condensing volatile organic compounds of vapor pressure greater than 7.0 kPa (1.0 psi) at 20^{0}C; or

(v) 25^{0}C when condensing volatile organic compounds of vapor pressure greater than 3.50 kPa (0.5 psi) at 20^{0}C; or

2. If equivalent control systems are used, the volatile organic compounds emissions must not be in excess of what would be emitted by using condensers which meet the requirements above.

b. From all air dryers and production equipment exhaust systems:

1. Achieve at least ninety (90) percent control efficiency if total facility uncontrolled emissions are 150 kg/day (330 lb/day) or more;

2. Reduce emissions to 15.0 kg/day (33 lb/day) or less if total facility uncontrolled emissions are less than 150 kg/day (330 lb/day);

c. Provide a vapor balance system or equivalent control system with control efficiency of at least ninety (90) percent for control of emissions from truck or railcar deliveries to storage tanks with capacities greater than seven thousand five hundred (7,500) liters (two thousand (2,000) gallons) that store volatile organic compounds with vapor pressures greater than 28.0 kPa (4.1 psi) at twenty (20) degrees Celsius;

d. Install pressure/vacuum conservation vents set at --+-0.2 kPa on all storage tanks that store volatile organic compounds with vapor pressures greater than 10.0 kPa (1.5 psi) at twenty (20) degrees Celsius, unless a more effective control system is used;

e. Enclose all centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface, where the liquid contains volatile organic compounds and exerts a total volatile organic compounds vapor pressure of 3.50 kPa (0.5 psi) or more at twenty (20) degrees Celsius;

f. Install covers on all in-process tanks containing volatile organic compounds;

g. Repair leaks of liquids containing volatile organic compounds.

(3) This rule applies to operations which are sources of volatile organic compounds, including reactors, distillation units, dryers, storage of volatile organic compounds, transfer of volatile organic compounds, extraction equipment, filters, crystallizers and centrifuges that have the potential to emit 6.8 kg/day (15 lb/day) or more in synthesized pharmaceutical manufacturing facilities having total facility potential emissions, from subject operations, of volatile organic compounds of twenty-five (25) or more tons per year.

(4) The owner or operator of a facility subject to this rule must:

a. Meet the applicable increments of progress contained in the following schedule:

1. Submit final plans for the emission control techniques before April 1, 1983;

2. Award contracts or purchase orders before July 1, 1983;

3. Initiate on-site construction or installation before December 1, 1983;

4. Complete on-site construction or installation before December 1, 1984;

5. Achieve final compliance before December 31, 1984;

b. Certify to the director within twenty (20) days after the deadline for each applicable increment of progress whether the required increment has been met.

Rules 25.28 through 25.40. Reserved.

Rule 25.41. Compliance schedules.

(1) *Process equipment and control devices*. The owner or operator of an existing source of volatile organic compound emissions subject to the standard in this chapter proposing to install and operate a control device and/or replacement process equipment to comply shall adhere to the increment of progress contained in the following schedule:

a. Final plans for the emission control device and/or process equipment must be submitted before March 1, 1980.

b. Contracts for the emission control systems and/or process equipment must be awarded or orders must be issued for purchase of component parts before June 1, 1980.

c. Initiation of on-site construction of control device or process equipment before January 1, 1981.

d. On-site construction or installation of the control device or process equipment completed before October 1, 1981.

e. Final compliance shall be determined before November 1, 1981 in accordance with the methods specified by the director.

f. Any owner or operator of an existing emission source subject to the compliance schedule of this section shall certify to the director within thirty (30) days after the deadline for each increment of progress whether the required increment of progress has been met.

(2) *Low solvent content coating*. The owner or operator of an existing source of volatile organic compound emissions subject to the standards in this chapter proposing to employ low solvent content coating technology to comply shall adhere to the increments of progress contained in the following schedule:

a. Final plans for the application of low solvent content coating technology must be submitted before March 1, 1980.

b. Research and development of low solvent content coating must be completed before September 1, 1980.

c. Evaluation of product quality and commercial acceptance must be completed before January 1, 1981.

d. Purchase orders must be issued for low solvent content coatings and process modifications before April 1, 1981.

e. Initiation of process modifications must begin before June 1, 1981.

f. Process modifications must be completed and use of low solvent content coatings must begin before August 1, 1981.

g. Final compliance shall be determined before September 1, 1981, in accordance with the methods specified by the director.

h. Any owner or operator of an existing source subject to the compliance schedule of this section shall certify to the director within twenty (20) days after the deadline for each increment of progress whether the required increment of progress has been met.

(3) *Equipment modification.* The owner or operator of an existing source of volatile organic compound emissions subject to the standards in this chapter proposing to comply by modification of existing process equipment shall adhere to the increments of progress contained in the following schedule:

a. Final plans for process modification must be submitted before March 1, 1980.

b. Contracts for process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish process modifications before June 1, 1980.

c. Initiation of on-site construction or installation of process modifications must begin before January 1, 1981.

d. On-site construction or installation of process modifications must be completed before October 1, 1981.

e. Final compliance shall be determined before November 1, 1981, in accordance with the methods specified by the director.

f. Any owner or operator of an existing source subject to the compliance schedule of this section shall certify to the director within thirty (30) days after the deadline for each increment of progress whether the required increment of progress has been met.

Rule 25.42. Individual compliance schedules.

(1) A facility may petition for a source-specific compliance schedule extending beyond those categorical compliance schedules contained in Rule 25.41 only if one (1) or more of the following conditions are satisfied:

a. The facility demonstrates that it is physically impossible for the source in question to comply with the date in the categorical schedule.

b. That, by allowing additional time, innovative technology will be applied and the reductions to be achieved will be significantly greater than that from the applicable emission standard. That the facility agrees that this revised value will be contained on the permit as a condition of source operation.

c. Additional time is necessary to allow for the development of low solvent systems rather than apply add-on controls.

d. The facility in question is a part of a state-wide or multistate program to prioritize the sequence of installing controls at a number of similar sources owned or controlled by the same company, and the overall compliance program is as expeditious as practicable.

(2) Individual compliance schedules approved under this section must contain the increments of progress below and achieve final compliance with the specified emission standard no later than July 1, 1987:

a. Date control plan will be submitted.

b. Date contract will be awarded.

c. Date initial construction will commence.

d. Date construction will be completed.

e. Date final compliance will be achieved.

(3) Individual compliance schedules approved under this section will be subjected to a public hearing and incorporated as a revision to these regulations. The facility requesting such individual compliance schedule shall be responsible for all costs associated with the required legal notices.

(4) No individual compliance schedule will be granted if such a revised schedule would interfere with reasonable further progress in the county.

(5) The petition for the individual compliance schedule must be received by the director prior to the first date contained in the categorical compliance schedule.

Rule 25.43. General provisions for test methods and procedures.

(1) The owner or operator of any new or existing source required to comply with standards contained in this chapter shall at his own expense, when so directed by the director, demonstrate compliance by the following methods or an alternative method approved by the director.

(2) No volatile organic compound emissions compliance testing will be allowed, nor the results accepted, unless prior notification has been supplied to the director as required under paragraphs (3) and (4) of this Rule 25.43, and the director has granted approval.

(3) Any person proposing to conduct a volatile organic compound emissions compliance 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.

(4) For compliance determination, the owner or operator of any new or existing source shall be responsible for providing:

a. Sampling ports, pipes, lines or appurtenances for the collection of samples and data required by the test procedure;

b. Safe access to the sample and data collection locations; and

c. Light, electricity and other utilities required for sample and data collection.

(5) A copy (or copies) of the test report shall be submitted to the director by the prescribed time period in a format stipulated by the director.

Rule 25.44. Determination of volatile content of surface coatings.

(1) This method applies, in accordance with Rule 25.43, to paint, varnish, lacquer and surface coatings which are air-dried or forcedried.

(2) This method does not apply to any coating system requiring a special curing process such as:

a. Exposure to temperatures in excess of one hundred ten (110) degrees Celsius (two hundred thirty (230) degrees Fahrenheit) to promote thermal cross-linking; or

b. Exposure to ultraviolet light to promote cross-linking.

(3) For the purpose of this method, the applicable surface coatings are divided into three (3) classes. They are:

a. 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, slat 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.

b. Class II: Varnishes and lacquers. This class includes clear and pigmented lacquers and varnishes.

c. Class III: Water-thinned paints. This class includes emulsion or latex paints and colored enamels.

(4) 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.

(5) The volatile organic content of the sample shall be determined as follows:

a. Assign the coating to one of the three (3) classes in paragraph c. of this section. Assign any coating not clearly belonging to Class II or III or Class I.

b. Determine the density D_m (in grams per cubic centimeter) of the paint, varnish, lacquer or, related product according to the procedure outlined in ASTM D 1475-60, Standard Method of Test for Density of Paint, Varnish, Lacquer and Related Products. Then, depending on the class of the coating, use one (1) of the following specified procedures to determine the volatile content:

1. Class I. Use the procedure in ASTM D 2369-73, Standard Method of Test for Volatile Content of Paints.

(i) 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

(ii) Compute the volatile matter content C, (in grams/liter of paint) as follows:

$$C_v = \frac{(W_1 - W_2)(D_m)(10^3)}{S}$$

(iii) To convert grams per liter to pounds per gallon, multiply C, by 8.3455×10^{-3}.

2. Class II. Use the procedure in ASTM D 1644-59 Method A, Standard Methods of Test for Nonvolatile Content of Varnishes. (Do not use Method B).

(i) Record the following information:

A = Weight of dish, grams
B = Weight of sample used, grams
C = Weight of dish and contents after heating, grams

(ii) Compute the volatile matter content C, (in grams/liter of paint) as follows:

$$C_v = \frac{(A + B - C)(D_m)(10^3)}{B}$$

(iii) To convert grams per liter to pounds per gallon, multiply C_v by 8.3455×10^{-3}.

3. Class III. Use the procedure in ASTM D 2369-73, Standard Method of Test for Volatile Content of Paints.

(i) Record the same information as specified for Class II.

(ii) Determine the water content in P (in percent water) of the paint according to the procedure outlined in Federal Standard 141a, Method 4082.1, Water in Paint and Varnishes (Karl Fischer Titration Method).

(iii) Compute the nonaqueous volatile matter content C, (in grams/liter) as follows:

$$C_v = \frac{(W_1 - W_2 - 0.01\ PS)(D_m)(10^3)}{S}$$

(iv) To convert grams per liter to pounds per gallon, multiply C_v by 8.3455×10^{-3}.

Rule 25.45. Test method for determination of volatile organic compound emission control system efficiency.

(1) The provisions of this section are generally applicable, in accordance with Rule 25.43, 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.

(2) The following procedures shall be included in any efficiency determination:

a. The volatile organic compound containing material shall be sampled and analyzed in a manner approved by the director such that the quantity of emissions that could result from the use of the material can be quantified.

b. The efficiency of any capture system used to transport the volatile organic compound emissions from their point of origination to the control equipment shall be computed using accepted engineering practice and in a manner approved by the director.

c. Samples of the volatile organic compound shall be taken simultaneously at the inlet and outlet of the emissions control device in a manner by the director.

d. The total combustible carbon content of the samples shall be determined by a method approved by the director.

e. The efficiency of the control device shall be expressed as the fraction of total combustible carbon content reduction achieved.

f. 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.

Rule 25.46. Test method for determination of solvent metal cleaning organic compound emissions.

(1) This method is applicable to determining volatile organic compound emissions from solvent metal cleaning equipment in accordance with Rule 25.43.

(2) 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.

(3) The following procedure shall be followed to perform a material balance test:

a. Clean the degreaser sump before testing.

b. Record the amount of solvent added to the tank with a flow meter.

c. Record the weight and type of work load degreased each day.

d. 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.

e. 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 of the solvent. The volume of solvent displaced by this oil along with the volume of makeup solvent added during operations is equal to the solvent emission.

Rule 25.47. Test procedure for determination of VOC emissions from bulk gasoline terminals.

(1) *Use of test*. This test method is applicable to determining volatile organic compound emissions from bulk gasoline terminals in accordance with Rule 25.43.

(2) *Principle*. VOC mass emissions are determined directly using flow meters and hydrocarbon analyzers. The volume of liquid gasoline dispensed is determined by a 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.

(3) *Summary of the method*. This method describes the test conditions and test procedure to be followed in determining the emissions from systems installed to control volatile organic compound 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 insure 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 of a total nonmethane hydrocarbon basis.

(4) *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 Rule 25.9.

(5) *Apparatus*. The components essential to the evaluation of emissions from gasoline loading terminals.

a. Portable combustible gas detector equipped to read 0 to 100 percent of the lowest explosive limit;

b. Flexible thermocouple with recorder;

c. Gas volume meter, sized for the expected exhaust flow rate and range;

d. Total hydrocarbon analyzer with recorder (flame ionization detector or nondispersive infrared equipped to read 0 to 10 percent by volume hydrocarbon as propane for vapor control systems which recover the vapor as liquid; or 0 to 10,000 ppm hydrocarbons as propane for incineration vapor control systems);

e. Barometer to measure atmospheric pressure;

f. Gas chromatography/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.

(6) *Test requirements.*

a. No fewer than three (3) eight-hour test repetitions will be performed.

b. During the test period, all loading racks shall be open for each product line which is controlled by the system under test. Simultaneous use of more than one (1) loading rack shall occur to the extent that such use would normally occur.

c. Simultaneous use of more than one (1) dispenser on each loading rack shall occur to the extent that such use would normally occur.

d. 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.

e. Applicable operating parameters of the vapor control system shall be monitored to demonstrate levels. For intermittent vapor control systems employing a vapor holder, each test repetition shall include at least one (1) fully automatic operation cycle of the vapor holder and control device. Tank trucks and truckers shall be essentially leak-free as determined by the director.

(7) *Basic measurements required.* The basic measurements essential to the evaluation of emissions from gasoline loading terminals are:

a. The amount of gasoline dispensed from gasoline dispensers;

b. Leak check of all fittings and vents; exhaust:

c. The following items for the processing unit exhaust:

1. Temperature;

2. Pressure;

3. Volume of vapors;

4. Hydrocarbon concentration of vapors;

5. Gas chromatograph analysis of vapors if methane is present in recovered vapors.

(8) *Test procedure.*

a. Calibrate and span all instruments as outlined under paragraph (10) of this rule.

b. Install an appropriately sized gas meter on the exhaust vent of the vapor control system. For those vapor control systems where size 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 as tap at the volume meter outlet. Attach a sample line for a total hydrocarbon analyzer (O 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 Method 3, Federal Register, 36:247, December 23, 1977.

c. Measurements and data required for evaluating emissions from the system:

1. 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.

2. At the beginning of each test repetition and each two (2) hours thereafter record the ambient temperature and the barometric pressure.

3. 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 cutoff is reached. This cycle should be performed immediately prior to the beginning of the test repetition before readings required under part 8(c)1 of this rule are taken.

4. 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, the average vapor temperature, pressure and hydrocarbon concentration. If a flow rate meter readouts continuously during the cycle. If required, extract a sample continuously during each cycle for chromatographic analysis for specific hydrocarbons.

5. 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 one (1) centimeter (four-tenths (0.4) inches) away from the interface.

6. 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.

7. For intermittent vapor control systems, the control unit shall be manually started and allowed to process vapors in the holder until the lower automatic shut off is reached at the end of each test repetition.

(9) *Calculations.*

a. Terminology:

T_a = Ambient temperature
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 at 20^oC, 760 mm Hg
C_e	=	Volume fraction of hydrocarbons in exhausted mixture (volume percent as $C_3H_{10}/100$, corrected for methane content if required)
T_e	=	Temperature at processing unit exhaust (^0C)
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/liter)

b. 1. Calculate the following results for each period of the vapor control system:

$$V_e = V_{ef} V_{ei} (M^3)$$

Where:

V_e	=	Totalized volume from flow rate and time records
V_{ef}	=	Final volume
V_{ei}	=	Initial volume

2. Normalized volume of exhausted mixture:

$$V_{es} = \frac{(0.3858\ ^oK/mm\ Hg)\ VePe}{(T_e + 273.2)}\ NM \text{ at } 20^oC, 760 \text{ mm Hg}$$

3. Mass of hydrocarbons exhausted from the vapor control system:

$$M_e = (1.833 \times \frac{10^6 \text{ mg } C_3 H_8)}{NM^3\ C_3 H_8}$$

c. Calculate the average mass of hydro carbons emitted per volume of gasoline loaded:

$$(M/L)_e = \frac{Me}{Lt} \text{ (mg/liter)}$$

(10) *Calibrations.*

a. Flow meters shall be calibrated using standard methods and procedures which have been approved by the director.

b. Temperature recording instruments shall be calibrated prior to a test period and following the test period using an ice bath (zero degrees Celsius) and a known reference temperature source of about thirty-five (35) degrees Celsius. 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.

c. Manufacturer's instructions concerning warmup 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 (100) percent propane. A calibration curve shall be provided using a minimum of five (5) prepared standards in the range of concentrations expected during testing:

1. For each repetition, zero with zero gas (3 ppm C) and span with seventy (70) percent propane for instruments used in the vapor lines and with ten (10) percent propane for instruments used at the vapor control system exhaust.

2. The zero and span procedure shall be performed at least once prior to the first test measurement, once during the middle of the run, and once following the final test measurement for each run.

3. 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.

Rule 26. Reasonably Available Control Technology (RACT).

Rule 26.1. General provisions.

(1) No person shall cause, suffer, allow or permit any source located inside the particulate matter nonattainment area, or any source of a plant located outside the particulate matter nonattainment area which plant significantly impacts the nonattainment area, to emit particulate matter concentrations in excess of the limitations set forth in this Rule 26. If the particulate matter nonattainment area is redesignated to attainment or unclassifiable, the emission limitations contained in this Rule 26 shall remain in full force and effect for those plants to which this Rule

26 had applicability on its effective date. No source shall be deemed in automatic violation of the emission limitations in this Rule 26 provided that each increment of progress established pursuant to Rules 26.21 and 26.22 is met in a timely fashion.

(2) This Rule 26 shall apply only to those sources and plants specified in Rule 26.1(1) which were in existence on January 1, 1978.

(3) Nothing in this Rule 26 shall prevent a source from exceeding the limitations set forth in this Rule 26 as provided for in section 4-13 by use of an alternate control strategy so that maximum allowable particulate matter limitations for the plant containing the source are not exceeded on either daily or an annual basis.

(4) If any source is subject to more than one (1) of the limitations in this Rule 26, for any one (1) piece of equipment or operation, then the most stringent limitation shall apply.

(5) The limitations of this Rule 26 shall not apply to emissions from any internal combustion engine.

(6) Definitions. As used in this Rule 26, all terms, units and abbreviations not defined herein but defined in section 4-2 shall have the meaning give them in section 4-2.

a. *Asphalt concrete plant* means any plant used to manufacture asphalt concrete by heating and drying aggregate and mixing with asphalt cements.

b. *Btu* means British thermal unit.

c. *Ceramic plant* means any plant used for the manufacture of any product made essentially from a nonmetallic mineral by firing at a high temperature.

d. CO_2 means carbon dioxide.

e. *Coke plant* means any plant used for the production of coke by the process of the destructive distillation of coal in the absence of oxygen occurring in chemical recovery coke ovens.

f. *Drop point* means any area where particulate laden process or waste material is allowed to fall in a manner which causes particulate matter to become airborne.

g. *Concrete batch plant* means any plant where sand, aggregate and cement are transferred to vehicles which transport the batch to a site.

h. *dscf* means dry cubic feet at standard conditions.

i. *Dust disturbance point* means any area where particulate laden process or waste material is exposed to activities which cause particulate matter to become airborne.

j. *Glass manufacturing plant* means any plant used in the processing of raw materials in a glass melting furnace for use in the manufacture of glass containers or flat glass.

k. *gr* means grain (1/7000th pound avoirdupois weight).

l. *Grain* means any corn, wheat, sorghum, rice, rye, oats, barley or soybeans.

m. *Grain elevator* means any plant used for the processing, unloading, loading, handling, cleaning, drying or storing of grain.

n. *Liquid alum reactor* means any plant used to complete the reaction of required ingredients under pressure in a reactor for manufacturing alum.

o. *Material handling source* means any plant engaging in the processing or storing of materials by conveyor, elevator, feeder, vehicle or other method including loading or unloading.

p. *Metal melting plant* means any plant engaged in the smelting or refining of ferrous and nonferrous metals from ore, pig or scrap.

q. *Outlet concentration* means the particulate matter content of gases exhausted from control equipment, expressed in weight per unit volume.

r. *Portland cement plant* means any plant used for the manufacturing of portland-type cement by either the wet or dry process.

s. *Pharmaceutical plant* means any plant used for the conversion of basic raw material into products used in the manufacture or pharmaceuticals.

t. *Rare earth plant* means any plant used for the processing of menozite sand to extract the rare earth elements.

u. *Rock crushing and quarry operation* means any plant engaged in operating gravel pits and quarries and in crushing, washing, screening and otherwise preparing gravel for construction use.

v. *Significantly impacts*. Any plant located outside the particulate matter nonattainment area which contributes to air quality in the nonattainment area is deemed to significantly impact the nonattainment area when it contributes:

1. 1 ug/m^3 or greater of particulate matter on an annual basis; or

2. 5 ug/m^3 or greater of particulate matter within any twenty-four-hour period.

w. *Synthetic yarn plant* means any plant used for the processing of synthetic fibers in the form of monofilament, yarn, staple or tow suitable for further manufacturing on spindles, looms, knitting machines or other textile processing equipment.

x. *Transfer point* means any area where particulate laden process or waste material moves from one (1) conveyance to another in such a manner which causes particulate matter to become airborne.

y. *Woodworking plant* means any plant used for manufacturing articles made entirely or partially of wood or wood substitutes.

Rule 26.2. Asphalt concrete plants. No person shall cause, suffer, allow or permit to be emitted from any asphalt concrete plant operation any gases which:

(1) Contain particulate matter in excess of 0.040 gr/dscf;

(2) Exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

Rule 26.3. Ceramics plants.

(1) No person shall cause, suffer, allow or permit to be emitted from any ceramics plant operation any gases which contain particulate matter in excess of:

a. 0.025 gr/dscf from any spray dryer;

b. 0.022 gr/dscf from any machining system;

c. 0.100 gr/dscf from any calciner;

d. 0.090 gr/dscf from any tunnel kiln;

e. 0.020 gr/dscf from any other equipment or operation.

(2) No person shall cause, suffer, allow or permit to be emitted from any transfer point, drop point or dust disturbance point any particulate matter in excess of 0.020 gr/dscf.

Rule 26.4. Coke plants.

(1) *Definitions.* For the purpose of this Rule 26.4, the following terms shall be construed as follows:

a. *Carbonization* means the heating of bituminous coal in an oven to destructively distill it in absence of oxygen so as to produce fixed carbon (coke).

b. *Charging* means the process of conveying coal and dropping it into the coke oven from the charging holes or ports located on top of the oven.

c. *Charging period,* for Larry car charging systems, means the period of time commencing when the first hopper gate is opened and ending when the last topside port lid is replaced. The charging period does not include the period of time during which the port lids are reopened in order to sweep the spilled coal into the oven.

d. *Chuck door* means the port for the leveling bar.

e. *Collecting main* means the horizontal manifolds connected to the standpipes used to conduct the volatile products to the byproducts plant.

f. *Coke* means solid form of carbon resulting from the destructive distillation of coal.

g. *Coke oven* means any refractory lined, heated, slot-type chamber in which coke is produced.

h. *Coke oven battery* means any plant for the production of coke containing one (1) or more ovens with an integral heating system.

i. *Coking* means the destructive distillation of coal in the absence of oxygen.

j. *Larry car* means the apparatus used to load coal into the empty oven. Also known as the charging car.

k. *Leveling bar* means any structured steel bar pushed back and forth across the top of the charge through the chuck door and used to eliminate the peaks in the coal charged into the coke oven.

l. *Luting* means the method of sealing leaks by using a slurry of water and fireclay or coal dust which dries on contact with hot surfaces to form a gastight seal. Used to seal leaks on charging ports, doors, offtake piping, etc.

m. *Oven* means the chamber used for the destructive distillation of coal to produce coke.

n. *Pusher machine* means any large apparatus which travels on rails alongside the battery and is used to remove doors and push coke from the oven.

o. *Pushing process* means the process by which coke is removed from a coke oven, including the period during which the doors are first removed from a coke oven until the quenching operation is commenced.

p. *Quenching* means the process whereby water is used to cool the hot coke.

q. *Topside port* means any opening in the topside of a coke oven, except for any offtake piping system.

(2) *Requirements for coke batteries.*

a. *Charging:*

1. No person shall cause, suffer, allow or permit to be discharged from any coke battery any visible emissions during charging from the Larry car, oven ports, or any of the jumper pipe/Larry car to oven interface points which exceed a cumulative total of one hundred twenty-five (125) seconds for any five (5) consecutive charges.

2. No person shall cause, suffer, allow or permit visible emissions from the chuck door (except during leveling), push side door, or coke side door during the charging operation of any battery.

b. *Pushing:*

1. The owner or operator of a coke battery must employ an emission capture and cleaning system which meets the following emission limitations:

(i) The capture of eighty-five (85) percent of the total particulate emissions generated by the pushing process;

(ii) The discharge of not more than 0.030 pounds of filterable particulate emissions per ton of coke pushed from any gas cleaning device installed for the control of pushing emissions;

(iii) No discharge of emissions from any hot car or enclosed capture system shall exceed twenty (20) percent opacity read above the collector main. In addition, no discharge of emissions from the gas cleaning device shall exceed twenty (20) percent opacity; and

(iv) There shall be no visible emissions from transportation of hot coke during a pushing operation which exceed ten (10) percent opacity.

2. Mass particulate sampling procedure: The mass particulate sampling procedure for coke battery pushing shall be as follows:

(i) Except as stated herein, the provisions of Title 40 Code of Federal Regulations Part 60, Appendix A, Methods I through 5, shall apply. Section 4.1.2 of Method 5 shall not apply in that the sampling time per point may be less than two (2) minutes. The sampling time per point shall start when the pusher machine ram begins moving forward and shall stop when the emissions captured have been collected by the gas cleaner.

(ii) One (1) push per traverse point shall be sampled.

(iii) Deviations to the test procedures set forth herein may be granted by the bureau if it determines such deviations will result in equivalent test procedures.

c. *Doors:* No owner or operator shall cause, suffer, allow or permit to be discharged any visible emissions from greater than ten (10) percent of the total number of doors from operating ovens (coke and pusher side doors) on each battery. Luted doors leaking

fifteen (15) minutes after the charge shall be immediately reluted. Leaks appearing after the first reluting shall be immediately reluted again.

d. *Lids:* No owner or operator shall cause, suffer, allow or permit to be discharged any visible emissions from greater than two (2) percent of the lids from operating ovens. Ovens being decarbonized within one-half hour of the push shall be excluded from both the numerator and denominator (maximum of three (3) ovens) of this determination.

e. *Offtakes:* No owner or operator shall cause, suffer, allow or permit to be discharged from any offtakes visible emissions from greater than ten (10) percent of the offtakes from operating ovens. Ovens being decarbonized within one-half hour of the push shall be excluded from both the numerator and denominator (maximum of three (3) ovens) of this determination.

f. *Underfire (combustion) stacks:*

1. No owner or operator shall cause, suffer, allow or permit to be discharged from any underfire stack, any gases which contain particulate matter in excess of 0.050 gr/dscf or which exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20)minutes in any twenty-four-hour period.

2. The provisions of Rule 26.4 2f.1. of this section notwithstanding, if any owner or operator is determined to be in violation of the opacity limitations contained in such Rule 26.4 2f.1., the owner or operator may elect within thirty (30) days after notification of violation to conduct particulate emissions testing in accordance with the provisions of this chapter to demonstrate compliance with the 0.050 gr/dscf emission limitation within forty-five (45) days after such election. If such testing demonstrates compliance with such emission limitation and visible emissions, as determined by a qualified observer designated by the director, are in excess of the twenty (20) percent opacity limitation during such testing, the opacity observed during such testing shall become the alternate opacity limitation for that emission point in accordance with the following provisions:

(i) Opacity readings shall be recorded at fifteen-second intervals. Each observation period shall begin with the start of each stack test run meeting the applicable mass emissions limitation and shall end with the completion of the stack test run or sixty (60) minutes later, whichever shall first occur. Opacity observations made during any stack test run which fails to demonstrate compliance with the applicable

mass emissions limitation shall not be used in determining the alternate opacity limitation.

(ii) The highest average of sixty (60) minutes or less (the highest average of the first two hundred forty (240) consecutive fifteen-second opacity observations during each stack test run meeting the applicable mass emissions limitation) shall be determined. If a stack test run is less than one (1) hour, the average of the fifteen-second opacity observations made during the stack test run shall constitute the average of sixty (60) minutes or less for that stack test run.

(iii) The highest rolling six-minute average (the highest average of any twenty-four (24) consecutive fifteen-second opacity observations during a stack test run meeting the applicable mass emissions limitation) shall be determined.

(iv) The alternate opacity limitation shall consist of the highest average of sixty (60) minutes or less and the highest rolling sixminute average plus seven (7) percent (opacity).

(v) The alternate opacity limitation determined pursuant to this rule shall be imposed as a special condition on any permit or certificate issued by the director on each affected source and shall take substantially the following form:

> The opacity of visible emissions from [source] shall not exceed [highest average of sixty (60) minutes or less] percent, averaged over any consecutive [period of sixty (60) minutes or less] minutes, or exceed [highest six-minute average plus seven (7)] percent, averaged over any consecutive six (6) minutes.

(vi) If there has been a previous violation of the twenty (20) percent opacity limitation contained in Rule 26.4 (2)f.1., if the opacity level of such previous violation did not exceed any alternate opacity level established pursuant to this Rule 26.4 (2)f.2., the owner or operator shall not be subject to criminal or civil sanctions for such previous violation.

(3) *Coke quenching*. The owner or operator shall comply with the following:

a. Any quench station shall be equipped with an effective baffle system.

b. No untreated blow down from other control systems shall be used for makeup water.

c. Make-up water shall contain no more than six hundred (600) milligrams per liter of total dissolved solids.

d. Make-up water shall contain no more than one hundred (100) milligrams per liter of total suspended solids.

e. Quenching gases produced shall exit from the top of the quenching station and shall not be allowed to escape from the entrance to, or exit from, the quench station.

(4) *Coal and coke storage piles*. No coal or coke storage pile shall produce visible emissions which exceed ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one (1) hour or more than sixty (60) minutes in any twenty-four-hour period.

(5) *Rail car dump.*

a. No visible emissions from rail car dump operation or associated handling, conveying and transfer points shall exceed ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one (1) hour or more than sixty (60) minutes in any twenty-four-hour period.

b. Any control equipment employed to capture such emissions shall have a capture efficiency of no less than ninety (90) percent and shall have an outlet concentration of no more than 0.020 gr/dscf. In addition, there shall be no visible emissions from such control equipment.

(6) *Coal mix bins.*

a. No coal mix bin operation or associated handling, conveying and transfer points shall produce visible emissions which exceed ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one (1) hour or more than sixty (60) minutes in any twenty-four-hour period.

b. Any control equipment employed to capture such emissions shall have a capture efficiency of no less than ninety (90) percent and shall have an outlet concentration of no more than 0.020 gr/dscf. In addition, there shall be no visible emissions from such control equipment.

(7) *Coal crusher*.

a. No coal crusher, coal bin, coal or coke screening operation or associated pulverizing, handling, conveying and transfer points shall produce visible emissions which exceed ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one (1) hour or more than sixty (60) minutes in any twenty-four-hour period.

b. Any control equipment employed to capture such emissions shall have a capture efficiency of no less than ninety (90) percent and shall have an outlet concentration of no more than 0.020 gr/dscf. In addition, there shall be no visible emissions from such control equipment.

(8) *Visible emission evaluation procedures.* The following additional procedures shall be employed to determine compliance with the applicable visible emission limitations contained in this Rule 26.4 for the specific emission points as follows:

a. Coke battery charging:

1. The charging period begins when the first Larry car slide gate is opened and ends when the last topside port lid is replaced. The charging period does not include the period of time during which the port lids are reopened in order to sweep spilled coal into the oven.

2. The observer stands on the coke oven battery so that he has a good view of all topside ports of the oven being charged. The observer is allowed to move laterally to obtain a clear view of all oven ports, dropsleeves and hoppers. During the charging period the observer watches all the potential emission sources, including the topside ports and Larry car hoppers. Upon observing the release of any visible emission, an accumulating stopwatch is started. The watch is stopped when the visible emission stops and is restarted when the visible emission reappears. The observer continues this procedure for the entire charging period. Visible emissions may occur simultaneously from several points during a charge. In this case, the visible emissions may start from one source immediately after another source's stop. This is timed as one (1) continuous visible emission. The following visible emissions are not timed:

(i) Visible emissions from burning coal spilled on top of the oven or oven lid during charging;

(ii) Visible emissions or steam vapor emitted from any equipment other than the charging or topside ports. Standpipe emissions should not be timed during charging.

3. The time recorded on the stopwatch is the total time that visible emissions observed for each charge is recorded on a data sheet. For each set of five (5) consecutive charges, the sum of the seconds of visible emissions is computed. If the observation of a consecutive set of charges is interrupted by an event not in the control of an observer, then the data for the interrupted charge shall be discarded and the data for the remaining consecutive charges shall be summed.

b. Coke battery pushing:

1. Except as stated herein, the provision of Title 40 Code of Federal Regulations, Part 60, Appendix A, Method 9, shall apply.

2. The provisions of Method 9, Section 2.5, shall not apply in that averaging shall not be used to determine compliance with the visible emission limitations in this Rule 26.4.

3. In making observations of any pushing emission control device outlet the observer shall be positioned in accordance with the provisions of Section 2.1 of Method 9 except that if it is an overcast day the reader need not position himself with his back to the sun.

4. In viewing the pushing operation the observer shall stand on the coke side of the battery where a clear view of the push can be obtained. This generally should be a location on the ground, in the coke side yard, outside the hot car tracks approximately perpendicular to the observed oven. The observer is not restricted to the ground level but may make the observation from some elevated level. If it is an overcast day or if the plume is in a shadow, the observer need not position himself with his back to the sun.

5. During the pushing operation, the reader shall observe all the pushing emissions including, but not limited to, fugitive emissions from the pushing emission control device and from open quench cars during travel.

6. Except as provided in Rule 26.4(8) b.7., the reader upon observing any visible emissions with an opacity greater than twenty (20) percent opacity, as determined

against any contrasting background, shall start an accumulating stopwatch. The reader shall stop the watch whenever the visible emissions are equal to or less than twenty (20) percent opacity. Observations shall not be made until the coke side door machine is in the final spotted position and ready to receive coke at the oven to be pushed. The reader continues this procedure for the entire pushing operation. The reader shall independently observe emissions from the pushing emission control device gas cleaning outlet and fugitive emissions from the pushing operation.

7. Pushing emissions during the transport of coke to the quench tower shall be evaluated separately. In this case, the readers shall be positioned in accordance with Rule 26.4 (8)b.4.

c. Coke battery doors:

1. A coke battery door inspection shall consist of the observer walking completely around a coke battery, at a steady pace from a ground level position just outside the pusher machine and quencher car tracks as close to the battery as safety and visibility conditions permit. The observer shall traverse each side of a battery expeditiously, recording the time of the beginning and end of each side's traverse, the identity of each door having a visible emission, and the identity of any door not observable during the traverse.

2. A visible emission on an individual door shall be noted on an inspection sheet when the observer detects any visible emission from any location on the perimeter of a coke oven door or chuck door, but not when emissions are seen to come from the area between a buckstay and adjacent jamb. Emissions observed at the top of the battery above a specific door shall not be counted in this procedure.

3. An observer shall observe each door only once, scanning the perimeter for any visible emissions. After a brief scan of a door, the observer shall move along his traverse checking subsequent doors in the battery in a like manner. If a temporary machine obstruction occurs blocking the view of a series of ovens, the ovens shall be bypassed and the remaining doors on that side of the battery inspected. After the traverse on that side of the battery the bypassed ovens only shall be reinspected.

d. Coke battery topside (lids and offtakes):

1. A topside inspection consists of the observer walking down the length of the topside of a coke oven battery and recording the identity of offtake piping and oven

lids having any visible emissions. Separate traverses shall be made for lids and offtakes.

2. Visible emissions from the offtake piping assembly shall include:

(i) Piping leaks-Any leaks from cracks or defects in the piping itself;

(ii) Flange leaks-Any leaks coming from the jointure of any pipes, including the final jointure with the main;

(iii) Base leaks-Any leaks coming from the standpipe base;

(iv) Cap leaks-Any leaks coming from the standpipe cap or along its seal with the standpipe;

(v) Other leaks-Any leaks coming from the offtake piping assembly which are not within one (1) of the above categories, such as leaks from the flushing liquor fitting.

3. Visible emissions from lids shall include all emissions from the casting/lid interface, but shall not include water vapor or smoke from burning or smoldering excess topside coal.

4. The observer shall walk down the length of a battery, completing his inspection in no more than (six (6) times the number of ovens) seconds. The inspector shall walk down the center of the battery, deviating from this path if necessary, to obtain a better view of any offtake assembly or lid. Topside potential emission points shall be observed expeditiously without the inspector's pausing, except to make entries of visible emissions. The inspector shall record the identity of visible emissions from all topside emission points in a single traverse of the topside of the battery except:

(i) Visible emissions from oven lids and standpipe caps that are opened during a decarbonization period or charging period;

(ii) Visible emissions caused by maintenance work in progress at an oven;

(iii) Steam emissions including steam caused by the vaporization of wet luting material.

5. Regardless of the number of points from which visible emissions are observed from any one (1) oven lid, offtake system, or stationary jumper pipe, the maximum entry for an oven with a single offtake system is one (1) and for a double main oven two (2). The maximum lid leaks recorded for an oven with four (4) oven ports is four (4). A stationary jumper pipe connecting two (2) ovens is counted as one (1) unit. For any one (1) jumper pipe, the maximum entry will be one (1), even though the pipe could be leaking at the junction to two (2) ovens.

Rule 26.5. Concrete batch plants. No person shall cause, suffer, allow or permit to be emitted from any concrete batch plant operation any gases which:

(1) Contain particulate matter in excess of 0.100 gr/dscf from any belt conveyor, clam shell crane, bucket elevator or truck loadout;

(2) Exceed ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one (1) hour or more than sixty (60) minutes in any twenty-four-hour period from any belt conveyor, clam shell crane, bucket elevator or loadout;

(3) Exceed five (5) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period from any storage silo.

Rule 26.6. Fuel-burning equipment. No person shall cause, suffer, allow or permit to be emitted from any fuel-burning equipment any gases which contain particulate matter in excess of the limitations determined as follows:

(1) Determine the total rated fuel-burning capacity of all fuel-burning equipment at a plant in millions of Btu, designated as "B" in Table 1 below, and then using Table 1, determine the allowable emission rate in pounds per million Btu (lbs/10^6 Btu), designated as "Q" in Table 1.

(2) To determine compliance, calculate actual emissions rate (lbs/10^6 Btu) when all equipment is burning the most particulate-producing fuel that equipment is capable of handling.

(3) A lower fuel-burning capacity may be specified if the owner or operator notifies the bureau in writing that the specified fuel-burning rate will not be exceeded any time during the year, and fuel monitoring equipment and verification logs adequate to determine fuel-burning rates are available to the bureau for inspection during normal business hours. This lower, specified fuel-burning rate will become a permit condition.

(4) If the owner or operator of the equipment agrees to utilize a technique whereby a less polluting fuel will be used in conjunction with the more polluting fuel to achieve these emissions limitations, and this agreement is made a permit condition, the provisions of Rule 26.6(2) shall not apply.

(5) This Rule 26.6 shall not apply to equipment designed to be fueled solely by coke oven gas.

TABLE 1

Equipment Rating (10^6 Btu)	*Maximum Allowable Particulate Emissions (lbs/10^6 Btu)*
Below 10	Q = 0.6
10 to 250	$Q = 2.16 \times B^{-0.5566}$
250 and greater	Q = 0.1

Rule 26.7. Glass manufacturing plants.

(1) No person shall cause, suffer, allow or permit to be emitted from any glass manufacturing furnace any gases which contain particulate matter in excess of 0.900 lb/ton of glass pulled.

(2) No person shall cause, suffer, allow or permit to be emitted from any transfer point, drop point or dust disturbance point any particulate matter in excess of 0.020 gr/dscf.

Rule 26.8. Grain elevators. No person shall operate a grain dryer unless it complies with one (1) of the following:

a. No existing column grain dryers shall have external sheeting with transverse perforations of effective circular diameter greater than 0.094.

b. No existing rack grain dryers shall have any portion of exhaust air emitted to the atmosphere without passing through a particulate collection screen having a maximum opening of 50-mesh US Sieve series.

c. All other types of grain dryers shall be controlled in a manner which shall result in the same degree of control required pursuant to Rule 26.8(1)a. and b.

Rule 26.9. Incinerators.

(1) No person shall cause, suffer, allow or permit to be emitted from any incinerator operation any gases which:

a. Contain particulate matter in excess of 0.010 gr/dscf corrected to twelve (12) percent CO_2;

b. Exceed twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than twelve (12) minutes in any twenty-four-hour period.

(2) This Rule 26.9 shall not apply to incinerators with a rated capacity of less than fifteen hundred (1500) pounds per hour, or incinerators which are subject to the limitations of Rule 7.4.

Rule 26.10. Liquid alum reactors. No person shall cause, suffer, allow or permit to be emitted from any liquid alum reactor operation any gases which:

(1) Contain particulate matter in excess of 0.250 gr/dscf;

(2) Exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

Rule 26.11. Material handling sources. No person shall cause, suffer, allow or permit to be emitted from any material handling operation, including stored product or waste material, any particulate matter which exceeds ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one-hour period or sixty (60) minutes in any twenty-four-hour period.

Rule 26.12. Metal melting plants.

(1) No person shall cause, suffer, allow or permit to be emitted from any metal melting plant operation any gases which contain particulate matter in excess of 0.020 gr/dscf except from operations specified in Rule 26.12(2), (3) and (4).

(2) No person shall cause, suffer, allow or permit to be emitted from any sand transfer point, drop point or dust disturbance point, any particulate matter in excess of 0.02 gr/dscf.

(3) No person shall cause, suffer, allow or permit to be emitted from any inoculation operation any gases which contain particulate matter in excess of 0.022 gr/dscf.

(4) No person shall cause, suffer, allow or permit to be emitted from any cupola top gases which contain particulate matter in excess of 0.022 gr/dscf.

(5) No person shall cause, suffer, allow or permit to be emitted from any metal melting plant any gases which exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

(6) This Rule 26.12 shall not apply to any metal melting plant with a melting capacity of forty (40) tons per day, or ten thousand (10,000) tons per year metal melted, or less.

Rule 26.13. Pharmaceutical plants. No person shall cause, suffer, allow or permit to be emitted from any pharmaceutical plant operation any gases which:

(l) Contain particulate matter in excess of 0.020 gr/dscf.

(2) Exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour, or more than twenty (20) minutes in any twenty-four-hour period.

Rule 26.14. Portland cement plants.

(1) No person shall cause, suffer, allow or permit to be emitted from any portland cement plant operation any gases which contain particulate matter in excess of:

a. The applicable emission limitation established under Rule 10 from any cement kiln or clinker cooler; provided, however, that process weight for any cement kiln shall be calculated using the dry feed basis;

b. 0.020 gr/dscf from any stack or vent serving any raw or finish mill system, raw mill dryer, raw materials storage, conveyor transfer point bagging, bulk loading or unloading system.

(2) No person shall cause, suffer, allow or permit to be emitted from any stack or vent serving any transfer point, drop point or dust disturbance point any particulate matter in excess of 0.020 gr/dscf.

(3) No person shall cause, suffer, allow or permit to be emitted from any portland cement plant operation specified in Rule 26.14 (1) and (2), any gases which exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period. For the purpose of this Rule 26.14(3), the provisions of Rule 26.11 shall not apply to material handling sources located at any portland cement plant operation.

(4) The owner or operator of any source of particulate matter emissions subject to the limitations in this Rule 26.14 proposing to install and operate a control device or replacement process equipment, or proposing to modify existing process equipment or control device, shall adhere to the increments of progress contained in the following schedule:

a. Final plans for the installation or modification must be submitted before January 1, 1982.

b. Contracts for the control device or process equipment must be awarded or orders must be issued for purchase of component parts before February 1, 1982.

c. Initiation of on-site construction or modification of the control device or process equipment before March 1, 1982.

d. On-site construction, installation of modification completed and final compliance shall be determined before December 31, 1982. Final compliance shall be determined in accordance with methods specified by the director.

(5) Any owner or operator subject to the compliance schedule contained in Rule 26.14(4) shall certify to the director, within thirty (30) days after the deadline for each increment of progress, whether the required increment of progress has been met.

(6) The provisions of Rules 26.21 and 26.22 shall not apply to any owner or operator of any portland cement plant subject to this Rule 26.14.

Rule 26.15. Rare earth plants.

(1) No person shall cause, suffer, allow or permit to be emitted from any earth plant operation any gases which:

a. Contain particulate matter in excess of 0.100 gr/dscf;

b. Exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

(2) No person shall cause, suffer, allow or permit to be emitted from any transfer point, drop point or dust disturbance point, particulate matter in excess of 0.020 gr/dscf.

Rule 26.16. Rock crushing and quarry operation.

(1) No person shall cause, suffer, allow or permit to be emitted from any rock crushing or quarry operation any particulate matter in excess of:

a. 0.075 pounds per ton of rock crushed from any primary or secondary crushing or primary or secondary crushing or primary or secondary screening equipment;

b. 0.300 pounds per ton of rock crushed from any tertiary crushing or tertiary screening equipment, or any fines mill equipment;

c. 0.250 pounds per ton of rock crushed from any recrusher or recrusher screening equipment;

d. 0.100 pounds per ton of rock crushed from any sand and gravel screening, conveying or handling equipment.

(2) No person shall cause, suffer, allow or permit to be emitted from any rock crushing or quarry operation any particulate matter which exceeds ten (10) percent opacity for an aggregate of more than fifteen (15) minutes in any one (1) hour or more than sixty (60) minutes in any twenty-four-hour period.

Rule 26.17. Synthetic yarn plants.

(1) No person shall cause to be emitted from any synthetic yarn plant any particulate matter in excess of:

a. 1.0 pounds per hour from any spinning machines;

b. 1.2 pounds per hour from any evaporator;

c. 1.0 pounds per hour from any autoclave;

d. 1.5 pounds per hour from any continuous polymerization line.

(2) No person shall cause, suffer, allow or permit to be emitted from any synthetic yarn plant any gases which exceed twenty (20) percent opacity for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

Rule 26.18. Woodworking plants.

(1) No person shall cause, suffer, allow or permit to be emitted from any woodworking operation any gases which contain particulate matter in excess of:

a. 0.030 gr/dscf from any woodworking operation except sanding;

b. 0.050 gr/dscf from any sanding operation.

(2) No person shall cause, suffer, allow or permit to be emitted from any transfer point, drop point or dust disturbance point any particulate matter in excess of 0.020 gr/dscf.

Rule 26.19. Dumping of material from control equipment.

(1) a. No material from air pollution control equipment shall be dumped on the ground or in the open unless it is thoroughly wet (at least ten (10) percent average moisture), chemically treated or adequately shielded from the wind to minimize the generation of fugitive dust to an equal level as would be reached by thoroughly wetting. Even wet materials, if dumped in the open, must either be covered over or chemically treated to prevent wind erosion before the material has had opportunity to dry out. For sources not meeting these requirements, a compliance plan for achieving the requirement of this rule must be submitted by January 31, 1981, and purchase orders for any new equipment issued by March 31, 1981. These requirements must be achieved at all plants by July 31, 1981.

b. The director may approve the use of an alternate method of control as a condition of the certificate of operation if it will result in an equivalent emission reduction or a greater reduction on a twenty-four-hour basis and an annual basis.

(2) All presently existing accumulations of materials from control equipment must be eliminated, covered or treated so as to prevent wind erosion no later than June 30, 1981. For sources not presently meeting these requirements, a compliance plan for achieving the requirements of this rule must be submitted to the director by November 30, 1980, and purchase orders for any new equipment issued by January 15, 1981.

Rule 26.20. Visible emissions from buildings. No person shall cause, suffer, allow or permit visible emissions from buildings at a plant subject to this Rule 26, other than gases or particulate matter emitted through a stack or flue, with an opacity in excess of five (5) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

Rule 26.21. Compliance schedules.

1) *Process equipment and control devices.* The owner or operator of any source of particulate matter emissions subject to the limitations in this Rule 26 proposing to install and operate a

control device or replacement process equipment to comply with the limitations in this Rule 26 shall adhere to the increments of progress contained in the following schedule:

a. Final plans for the emission control device or process equipment must be submitted before November 30, 1980.

b. Contracts for the emission control device or process equipment must be awarded or orders must be issued for purchase of component parts before February 28, 1981.

c. Initiation of on-site construction of the control device or process equipment before June 30, 1981.

d. On-site construction or installation of the control device or process equipment completed before March 31. 1982.

e. Final compliance shall be determined before May 31, 1982, in accordance with the methods specified by the director.

f. Any owner or operator of an emission source subject to the compliance schedule of this section shall certify to the director, within thirty (30) days after the deadline for each increment of progress, whether the required increment of progress has been met.

(2) *Equipment modification.* The owner or operator of any source of particulate matter emissions subject to the limitations in this Rule 26 proposing to comply with the limitations in this Rule 26 by modification of existing process equipment shall adhere to the increments of progress contained in the following schedule:

a. Final plans for process modification must be submitted before November 30, 1980.

b. Contracts for process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish process modifications before February 28, 1981.

c. Initiation of on-site construction or installation of process modifications must begin before June 30, 1981.

d. On-site construction or installation of process modifications must be completed before November 30, 1981.

e. Final compliance shall be determined before February 28, 1982, in accordance with the methods specified by the director.

f. Any owner or operator of an emission source subject to the compliance schedule of this section shall certify to the director, within thirty (30) days after the deadline for each increment of progress, whether the required increment of progress has been met.

Rule 26.22. Individual compliance schedules.

(1) A plant may petition the board for a source specific compliance schedule extending beyond those categorical compliance schedules contained in Rule 26.21 only if one (1) or more of the following conditions are satisfied:

a. The plant demonstrates that it is physically impossible to comply with any date in the categorical schedule.

b. By allowing additional time, innovative technology will be applied and the reductions to be achieved will be significantly greater than that from the applicable emission limitation. The plant agrees that this revised value will be contained on the permit as a condition of the source operation.

c. The plant in question is a part of a state-wide or multistate program to prioritize the sequence of installing controls at a number of similar sources owned or controlled by the same company, and the overall compliance program is as expeditious as practicable.

(2) Individual compliance schedules approved under this section must contain the below numerical increments of progress and achieve final compliance with the specified emission standard no later than December 31, 1982:

a. Date control plan will be submitted.

b. Date contract will be awarded.

c. Date initial construction will commence.

d. Date construction will be completed.

e. Date final compliance will be achieved.

(3) Individual compliance schedules approved under this section will be subjected to a public hearing and incorporated as a revision to the state implementation plan. The plant requesting such individual compliance schedule shall be responsible for all costs associated with the required legal notices.

(4) No individual compliance schedule will be granted if such a revised schedule would interfere with reasonable further progress in the city.

(5) The petition for the individual compliance schedule must be received by the director prior to November 30, 1980.

Rule 27. Particulate Matter Controls for New Sources and New Modifications After August 29, 1995.

Rule 27.1. Particulate Matter Best Available Control Technology. Any new source or modification, alteration or reconstruction the installation of which commences after August 29, 1995 that emits or has the potential to emit fifteen (15) tons per year (tpy) or more of PM_{10} emissions, or that emits or has the potential to emit twenty-five (25) tons per year or more of particulate matter shall utilize "particulate matter best available control technology" (particulate BACT) as defined in Rule 27.2. If test results at a source subject to Rule 27.1 show more than 15.0 tons per year actual emissions of particulate matter, such source shall forward such test results to the director. In addition, within sixty (60) days after receiving such test results such source shall complete PM_{10} emissions testing and forward the results of the PM_{10} emissions testing to the director.

Rule 27.2. For the purposes of Rule 27, "particulate matter best available control technology" means an emissions limitation (including a visible emissions limitation) based on the maximum degree of reduction for particulate matter which would be emitted from any proposed stationary source or modification, alteration, ore reconstruction 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 such application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of each such pollutant. In no event shall the application of particulate matter best available control technology result in emissions of particulate matter which would exceed the emissions allowed by any applicable limitation established under Rules 15 and 16. If a source demonstrates to the director that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions limitation infeasible, a design, equipment, work practice, operations standard or combination thereof, submitted by the source and approved by the director, may be prescribed instead to satisfy the requirement for the application of

particulate matter best available control technology. Such a standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operations standard and shall provide for compliance by means which achieve equivalent results.

Rule 27.3. Reasonable and Proper Emission Limitations. Any new source or modification, alteration or construction the installation of which commences after August 29, 1995 that emits or has the potential to emit at its maximum less than fifteen (15) tpy of PM_{10} emissions or less than twenty-five (25) tons per year of particulate matter shall achieve "reasonable and proper emission limitations" as defined in Rule 27.4.

Rule 27.4. For the purposes of Rule 27, "reasonable and proper emission limitations" means an emissions limitation (including a visible emission standard) which the director, on a case-by-case basis, determines is reasonably achievable and cost-effective for such new source or modification, alteration or reconstruction through the application of production processes or through available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of emissions of particulate matter taking into account the following factors:

(1) the necessity of requiring emissions reductions in order to attain or maintain ambient air quality standards; and

(2) the technology available, the costs, energy and other environmental impacts, and any control equipment in use at the source.

If the director determines that technological or economic limitations on the application of control technology to a particular emissions unit would make the imposition of a quantitative emissions limitation infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for reasonable and proper emissions reductions.

Rule 28. General Provisions and Applicability for Sulfuric Acid Plants and Oleum Manufacturing Plants.

Rule 28.1. Purpose. The purpose of this Rule 28 is to establish emission standards and other requirements for sulfuric acid plants and for oleum manufacturing plants.

Rule 28.2. Definitions. Words or terms defined in Rule 28 are for the purpose of this rule only and will not affect the definitions of Section 4-2. Unless specifically defined in this Rule 28, the definitions from Section 4-2 will apply:

(1) *Acid mist* means sulfuric acid mist, as measured by EPA Method 8 in Title 40 *Code of Federal Regulations* Part 60, Appendix A, which has been incorporated by reference in Chapter 4, or an equivalent or alternative method, as provided in Title 40 *Code of Federal Regulations* Part 60, Subpart H, which has been incorporated by reference in Chapter 4.

(2) *Deluge system* means a system to overflow an area of a release with an extinguishing agent.

(3) *Oleum manufacturing plant* means any facility producing oleum.

(4) *Sulfuric acid plant* means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge or by any other method.

Rule 28.3. Standards.

(1) *Best Available Control Technology*. Any sulfuric acid plant or oleum manufacturing plant or the modification, alteration or reconstruction of a sulfuric acid plant or oleum manufacturing plant shall utilize "best available control technology" for the control of sulfur dioxide emissions and for the control of acid mist emissions during start-up, normal operations and shut-down. For the purposes of this Rule 28, "best available control technology" shall have the same definition as for "Best available control technology (BACT) for Section 4-8(e) and Section 4-41, Rule 25."

(2) *Normal operations.*

a. In no case shall "best available control technology" be less stringent than the requirements of the Standards of Performance for Sulfuric Acid Plants, Title 40 *Code of Federal Regulations* Part 60, Subpart H, which has been incorporated by reference in Chapter 4. Except during startup, no emissions containing sulfuric acid mist shall be discharged from the facility with an opacity in excess of five (5) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four-hour period.

b. The process equipment and material handling shall be operated in accordance with the facility's leak detection and repair (LDAR) procedures, which shall be submitted to the Director for written approval prior to the issuance of any installation permit, certificate of operation, or Part 70 operating permit. Written approval must be received from the Director prior to the initial start-up of the plant.

(3) *Plant start-up operations.*

a. Acid mist emissions, including fugitive emissions, shall not exceed 0.15 pounds of acid mist emissions per ton of one hundred percent sulfuric acid produced.

b. Sulfur dioxide emissions shall not exceed 1,200 parts per million by volume, averaged over the three consecutive hours immediately following the initiation of sulfur burning.

c. No emissions containing sulfuric acid mist shall be discharged from the facility with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour during startup.

d. A continuous monitoring system for the measurement of sulfur dioxide emissions during start-up shall be installed, calibrated, maintained, and operated by the owner or operator during start-up. The pollutant gas used to prepare calibration gas mixtures for calibration checks shall be sulfur dioxide. EPA Method 8 in Title 40 *Code of Federal Regulations* Part 60, Appendix A, which has been incorporated by reference in Chapter 4, shall be used for conducting monitoring system performance evaluations except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 2,000 ppm of sulfur dioxide.

e. Plant start-up shall be at the lowest practicable production rate, not to exceed seventy percent of the maximum production rate, until the sulfur dioxide continuous emissions monitor required under Rule 28.3(3)d. indicates compliance with the best available control technology sulfur dioxide emissions limitations provided in Rule 28.3(1). If a more appropriate indicator (such as blower pressure, furnace temperature, gas strength, blower speed, number of sulfur guns operating, or equivalent operating parameter) can be documented, tested and validated, the Director may accept this in lieu of directly documenting the production rate.

f. If the sulfur dioxide continuous emissions monitor required under Rule 28.3(3)d. indicates that the plant is not in compliance with the sulfur dioxide emissions limitations of Rule 28.3(1) by the end of the third hour after start-up initiation, the plant shall be shut down within the fourth hour after start-up initiation. Restart may occur as soon as practicable following any needed repairs or adjustments, provided that corrective action has been taken, logged, and initialed prior to restart.

g. Plant start-up procedures which minimize sulfur dioxide emissions and acid mist emissions during start-up shall be developed, documented, and submitted to the Director for written

approval prior to issuance of any installation permit, certificate of operation, or Part 70 operating permit. Written approval must be received from the Director prior to the initial start-up of the plant. These procedures shall include recording the inlet and outlet temperatures of each catalyst mass; and the concentration, temperature, and flow of circulating acid in each absorbing tower on a written operator log. The plant shall operate in accordance with the approved start-up procedures.

h. Plant start-up shall not commence unless meteorological conditions clearly demonstrate that inversion and/or air stagnation conditions do not exist in the vicinity of the plant.

1. The owner or operator shall develop, document, and implement procedures to be followed during start-up which clearly demonstrate that inversion and/or air stagnation conditions do not exist at the plant at the time of start-up. These procedures shall be submitted to the Director for written approval prior to the issuance of any installation permit, certificate of operation, or Part 70 operating permit. Written approval must be received from the Director prior to the initial start-up of the plant. Any modifications to these procedures shall require the written approval of the Director. Written approval must be received from the Director prior to implementation of the modifications.

2. A record of the meteorological conditions present during each start-up shall be recorded on a written operator log.

(4) *Storage tanks*. Storage tanks used to store concentrated sulfuric acid or oleum at ambient temperature shall meet the design, fabrication, and inspection requirements of the National Association of Corrosion Engineers (NACE) Standard RP0294-94, "Recommended Practice Design, Fabrication, and Inspection of Tanks for Storage of Concentrated Sulfuric Acid and Oleum at Ambient Temperatures", which has been incorporated by reference in Chapter 4.

(5) *Deluge system*. The owner or operator of an oleum manufacturing plant or a sulfuric acid plant where oleum is a product or by-product shall install and maintain a deluge system, which shall be operated in the event of an oleum release.

Rule 29. General Provisions and Applicability for Oleum Transfer Operations.

Rule 29.1. Purpose. The purpose of this Rule 29 is to prevent releases of oleum from oleum transfer facilities.

Rule 29.2. Definitions. Words or terms defined in Rule 29 are for the purpose of this rule only and will not affect the definitions of Section 4-2. Unless specifically defined in this Rule 29, the definitions from Section 4-2 will apply:

(1) *Deluge system* means a system to overflow an area of a release with an extinguishing agent.

(2) *Failure event* means any release of oleum into the ambient air which may expose the public to sulfuric acid and sulfur trioxide (combined) in excess of 0.01 grams per cubic meter or two parts per million calculated as sulfuric acid averaged over any ten consecutive minutes, or any release of oleum of any amount into the ambient air that causes or contributes to cause any of the following health effects: irritated eyes, skin or mucous membranes; headaches; burning sensation in the nose or throat; nausea; difficulty breathing; inflammation of the upper respiratory tract; chronic bronchitis; lung damage; loss of consciousness; or chemical pneumonitis.

(3) *Oleum* means sulfuric acid (H_2SO_4) with any dissolved sulfur trioxide (SO_3).

(4) *Oleum transfer facility* means a facility or operation that loads or unloads oleum into or out of containers.

Rule 29.3. Standards. Any owner or operator of an oleum transfer facility shall meet all of the following requirements:

(1) No owner or operator of an oleum transfer facility shall cause, suffer, allow or permit any oleum release into the ambient air which may expose the public to sulfuric acid and sulfur trioxide (combined) in excess of 0.01 grams per cubic meter or two parts per million calculated as sulfuric acid averaged over any ten consecutive minutes, or any release of oleum of any amount into the ambient air that causes or contributes to cause any of the following health effects: irritated eyes, skin or mucous membranes; headaches; burning sensation in the nose or throat; nausea; difficulty breathing; inflammation of the upper respiratory tract; chronic bronchitis; lung damage; loss of consciousness; or chemical pneumonitis.

(2) All oleum transfers shall be continuously conducted, attended, and monitored by a qualified operator. A qualified operator is a person who is trained under the facility's oleum transfer procedures to conduct an oleum transfer.

(3) All oleum transfers shall be conducted in strict accordance with the facility's written oleum transfer procedures. The oleum transfer procedures shall meet the following requirements:

a. The procedures shall be submitted for written approval by the Director that the requirements of Rule 29.3(3)b. through (3)f. have been met prior to the issuance of an installation permit, certificate of operation, or Part 70 permit. Written approval must be received from the Director prior to the initial start-up of the facility. The Director shall provide a 30-day public comment period followed by a public hearing prior to the initial start-up of the facility and will consider all comments received during the public comment period and the public hearing prior to approval of the procedures.

b. The procedures shall explicitly establish and thoroughly describe a qualified operator training program; an equipment inspection and maintenance plan; and monitoring and warning systems to avoid a failure event as defined in Rule 29.2.

c. The procedures shall detail the steps that must be taken by the qualified operator during the oleum transfer and shall include a written oleum transfer checklist. The checklist must provide for a method that will verify completion of each step in the transfer procedure.

d. The procedures shall detail the approval process that must be followed to change the oleum transfer procedures or the oleum transfer checklist. Any change in procedures must be submitted for advance written approval by the Director;

e. The procedures must be approved and signed by a responsible manager. A responsible manager is a person who is an employee of the facility and who is responsible for the management of the facility.

f. The owner or operator, using a process hazards analysis as described in Title 40 *Code of Federal Regulations* Part 68, Subpart D, Section 68.67, which has been incorporated by reference in Chapter 4, shall predict failure events; identify and evaluate hazards involved in the process; plan, implement, and document at least three consecutive prevention measures for every predicted failure event. A process hazards analysis is a systematic method for reducing the likelihood for an oleum release, and for identifying conditions, component failure, and human activities that may result in emissions to the ambient air. The procedures must contain the written predictions, plans, and prevention measures.

1. Prevention measures include, but are not limited to, flow, level and pressure indicators with interlocks; deadman switches; monitoring systems; documented and verified routine inspection and maintenance programs specified in detail by

the oleum transfer procedure; and secondary containment and control equipment.

2. Operator training and documented and verified routine inspection and maintenance programs specified in detail by the oleum transfer procedure, collectively, may count as only one of the three required prevention measures.

3. A component, system or program with an unacceptable probability for failure shall not be considered a prevention measure.

4. As part of the process hazards analysis, methods for reducing the likelihood for a release include an inherent safety review of the operation, which considers process modifications and which minimizes the number of oleum transfers.

g. So that appropriate protective measures, such as shelter in place or evacuation plans, may be instituted, the owner or operator will develop, document, and implement notification procedures to immediately notify the public in the event of an oleum release which may result in a failure event as defined in Rule 29.2. The written notification procedures shall be included in the oleum transfer procedures.

(4) At the time of each transfer, an oleum transfer checklist shall be completed by the qualified operator who attends and conducts the transfer. Immediately following the completion of the transfer, the qualified operator shall sign the completed checklist, which shall include the date and the time of the transfer.

(5) The owner or operator of an oleum transfer facility shall vent all pressure relief devices to a secondary containment system, which is a system designed to contain and control a release of oleum in order to avoid a failure event as defined in Rule 29.2. In lieu of controlling any pressure relief device on a tank truck or railroad tankcar, an additional pressure relief device may be installed on the stationary vent line to the tank truck or railroad tankcar. This additional pressure relief device shall be vented to a secondary containment system and shall be designed to relieve at less than eighty percent of the set point of the tank truck or railroad tankcar pressure relief device.

(6) Oleum transfer checklists for each transfer shall be retained for at least two years following the date of the transfer and shall be available for inspection by the Director or his designated representatives during normal business hours.

(7) In the event of an oleum release, the owner or operator of an oleum transfer facility shall immediately report the release to the Director and to the local emergency services. This shall mean an immediate telephone report to the Director and to the local emergency services, followed up by a written report submitted to the Director within seven (7) days after the release.

(8) The owner or operator of an oleum transfer facility shall install and maintain a deluge system, which shall be operated in the event of an oleum release to prevent a failure event as defined in Rule 29.2.

(Code 1986, § 4-41; Ord. No. 9171, §§ 6-8, 10-13, 5-30-89; Ord. No. 9652, § 1, 12-17-91; Ord. No. 9846, §§ 3-8, 3-9-93; Ord. No. 10269, §§ 1-3, 7-25-95; Ord. No. 10277, §§ 15-26 & 28, 8-15-95; Ord. No. 10785, §§ 1-4, 10-27-98; Ord. No. 10786, §§ 31-50 & 62, 10-27-98; Ord. No. 10923, § 1, 11-2-99; Ord. No. 10968, §§ 5-6, 2-8-00)

ARTICLE III. PART 70 SOURCE REGULATION AND PERMITS

Sec. 4-50. Part 70 sources.

The provisions, requirements, limitations, exceptions and other terms of this ordinance apply to all part 70 sources and emissions units located at all part 70 sources, as are hereinafter defined, which are now existing or hereafter may be constructed or modified so as to become or to have the potential to become a part 70 source (or an emissions unit at a part 70 source) and does not apply to other sources. Part 70 sources are not subject to the procedural permitting requirements of Section 4-8 of the Chattanooga Air Pollution Control Ordinance except that part 70 sources (and emissions units located thereat or thereon) will be required to apply for installation permits in accordance with section 4-8(a) of the Chattanooga Air Pollution Control Ordinance if modifications to or new construction of a part 70 source are subject to the following:

(a) Section 4-41, Rule 18 of the Chattanooga Air Pollution Control Ordinance;

(b) Section 4-41, Rule 25.3 of the Chattanooga Air Pollution Control Ordinance;

(c) Section 4-41, Rule 23 or Rule 27 of the Chattanooga Air Pollution Control Ordinance;

(d) Any standard or other requirement pursuant to regulations promulgated under section 111 of the Act [42 U.S.C. §7411], in 40 CFR Part 60, revised as of July 1, 1993, which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115; or

(e) Case-by-case determinations made pursuant to sections 112(g) and (j) of the Act [42 U.S.C. §7412(g) and (j)] as set forth at Section 4-53 "Applicable requirement" (4) of this ordinance.

All other sources that are not part 70 sources remain subject to the Chattanooga Air Pollution Control Ordinance but without regard to this enactment. The other (non-part 70) sources are exempt from the terms hereof, until such later time as by amendment hereof they are brought within the scope hereof. Nothing herein shall be construed to use the authority of the permitting agency to modify acid rain program requirements.
(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10786, § 51, 10-27-98)

Sec. 4-51. Permitting authority.

The permitting authority, as is hereinafter defined, has authority to issue, terminate, modify, revoke and reissue permits in accordance with the provisions hereof and to enforce the requirements, conditions and elements of a part 70 permit and also to enforce the requirements for obtaining a permit and to collect the permit fees provided for herein and to enforce, in all ways permissible under law, the requirements and provisions of this ordinance. No part 70 source or emissions unit at a part 70 source may operate without the permit required herein, unless specifically excepted or exempted by this ordinance.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-52. Program overview.

(a) The regulations and requirements of this ordinance provide for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act (Act) (42 U.S.C. §7401, et seq.) and 40 CFR Part 70. This ordinance and these regulations and requirements define the procedures and elements required by the ordinance for operating permits.

(b) All sources subject to these regulations must have a permit to operate that assures compliance by the source with all applicable requirements and with the requirements of this ordinance.

(c) In the case of Federal intervention in the permit process, the Administrator of EPA has reserved the right to implement this operating permit program, in whole or in part, or the Federal program contained in regulations promulgated under Title V of the Act.

(d) The requirements of 40 CFR Part 70, revised as of July 1, 1993, which are incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115, including provisions regarding schedules for submission and approval or disapproval of permit applications, shall apply to the permitting of affected sources under the acid rain program, except as provided herein or modified in

regulations promulgated under Title IV of the Act (acid rain program) promulgated under Title IV of the Act in 40 CFR Parts 72, 75, and 76 and revised as of July 1, 1993, and 40 CFR Part 76 at 59 Federal Register 13564-13580, which are incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115. If the provisions or requirements of 40 CFR Part 72 conflict with or are not included in this ordinance, the Part 72 provisions and requirements shall apply and take precedence.

(e) The actions of the permitting authority shall not be used to modify any acid rain program requirements.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-53. Definitions.

The following definitions apply to this part of the Chattanooga Air Pollution Control Ordinance. Except as specifically provided in this section, terms used in this part retain the meaning accorded them under the applicable requirements of the Act. In the event that there are conflicts in the definition or contextual use of a term in this ordinance and the definition of that term in the Chattanooga Air Pollution Control Ordinance, the definition here shall apply in this part 70 program and the definition in other parts shall apply there. Unless a word or phrase is specifically defined in Section 4-53, the definitions from Section 4-2 will apply.

"Act" means the Clean Air Act, as amended, 42 U.S.C. §7401, et seq.

"Actual emissions" means the actual rate of emissions in tons per year of any regulated pollutant (for presumptive fee calculation) emitted from a part 70 source over the preceding calendar year or any other period determined by the permitting authority to be representative of normal source operation and consistent with the fee schedule approved pursuant to this section. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and in-place control equipment, types of materials processed, stored, or combusted during the preceding calendar year or such other time period established by the permitting authority pursuant to the preceding sentence. [See Section 4-60(b)(2)(iii)]

"Administrative permit amendment" means a permit revision that:

(1) Corrects typographical errors;

(2) 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;

(3) Requires more frequent monitoring or reporting by the permittee;

(4) Allows for a change in ownership or operational control of a source where the permitting authority 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 has been submitted to the permitting authority;

(5) Incorporates into the part 70 permit the requirements from preconstruction review permits authorized under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of 40 CFR §§ 70.7 and 70.8 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 40 CFR §70.6; or

(6) Incorporates any other type of change which the Administrator has determined as part of the approved part 70 program to be similar to those in paragraphs (1) through (4) of this definition, provided that such "other type of change" has been identified in this ordinance by amendment subsequent to the action of the Administrator.

"Administrator" means the Administrator of the United States Environmental Protection Agency.

"Affected source" shall have the meaning given to it under Title IV of the Act which is a source that includes one or more affected units.

"Affected States" are all States:

(1) Whose air quality may be affected and that are contiguous to the State of Tennessee; or

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

"Affected unit" shall have the meaning given to it under Title IV of the Act which is a unit that is subject to emission reduction requirements or limitations under Title IV of the Act.

"Applicable requirements" mean all of the following requirements in the Act, as they apply to emissions units in a part 70 source (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance but have future-effective compliance dates) which are specifically as follows:

(1) Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under Title I of the Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in 40 CFR Part 52 where the same have been legally adopted by ordinance in Chattanooga, Tennessee;

(2) Any term or condition of any preconstruction permits issued pursuant to regulations promulgated under Title I, including parts C or D, of the Act in 40 CFR Part 51 or 40 CFR 60, revised as of July 1, 1993, which are incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115;

(3) Any standard or other requirement pursuant to regulations promulgated under section 111 of the Act [42 U.S.C. §7411] in 40 CFR Part 60, revised as of July 1, 1993, which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115;

(4) Any standard or other requirement promulgated under section 112 of the Act [42 U.S.C. Section 7412], including any requirement concerning accident prevention under section 112(r)(7) of the Act [42 U.S.C. Section 7412(r)(7)] in 40 CFR Part 61; 40 CFR Part 63;-and 40 CFR Part 68, which have been incorporated herein by reference in Chapter 4 pursuant to the provisions of T.C.A. 68-201-115. No owner or operator may install or modify a Part 70 source that is a major source of hazardous air pollutants [as defined in section 112(b) of the Act (42 U.S.C. §7412] unless the maximum achievable control technology emission limitation promulgated under section 112 of the Act and incorporated by reference at Section 4-53 as an applicable requirement will be met, and provided further that the maximum achievable control technology emission limitation determination shall be made by the permitting authority on a case-by-case basis as an interim measure pending such promulgation where such promulgation has not yet occurred pursuant to Section 4-41, Rule 16.10. If a major source of hazardous air pollutants has executed an enforceable agreement with the Administrator pursuant to the Title 42 U.S. C. Section 7412(i)(5) Early Reductions Program that contains more stringent requirements or more stringent emissions limitations than would otherwise be applicable under this ordinance or the Chattanooga Air Pollution Control Ordinance, the part 70 permit issued to it shall include the requirements and emissions limitations contained in that agreement, unless the major source is subsequently released from said enforceable agreement and such release is confirmed in a writing signed by the Administrator, or designee, and submitted to the director;

(5) Any standard or other requirement of the acid rain program promulgated under Title IV of the Act and which are incorporated by reference at Section 4-52(d) of this ordinance;

(6) Any standard or other requirement governing solid waste incineration promulgated under section 129 of the Act [42 U.S.C. §7429], including 40 CFR Part 60, Subpart Ea, "Standards of Performance for Municipal Waste Combustors", revised as of July 1, 1993, which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115 and standards or other requirements that have been identified in this ordinance by amendment subsequent to the action of the Administrator;

(7) Any standard or other requirement for consumer and commercial products, under section 183(e) of the Act [42 U.S.C. §7511b.(e)] provided that these standards or other requirements have been identified in this ordinance by amendment subsequent to the action of the Administrator;

(8) Any standard or other requirement for tank vessels, under section 183(f) of the Act [42 U.S.C. §7511b.(f)] provided that these standards or other requirements have been identified in this ordinance by amendment subsequent to the action of the Administrator;

(9) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act in 40 CFR Part 82, Revised as of July 1, 1993, which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115, unless the Administrator has determined that such requirements need not be contained in a part 70 permit;

(10) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to section 504(e) of the Act [42 U.S.C. §7661c.(e)];

(11) All requirements of 40 CFR Part 70, revised as of July 1, 1993, which are incorporated by reference at Section 4-52(d) of this ordinance;

(12) Any standard or requirement set forth in Section 4-41 of the Chattanooga Air Pollution Control Ordinance. If a federal regulation is promulgated that does have, or would have, application to a Part 70 source or emissions unit, the Board shall cause the Bureau to prepare within 60 days a draft ordinance for consideration at a public hearing and the Board shall within 120 days make a recommendation to the City concerning a proposed ordinance. During the interim period following such federal

promulgation but preceding local adoption and enforceability of such a standard, each Part 70 permit issued to a source that is subject to such a federal applicable requirement shall include a statement that such source is subject to such federal applicable requirement, followed by the appropriate legal citation for such requirement; and

(13) Any standard or other requirement for compliance assurance monitoring in Title 40 CFR Part 64 promulgated at 62 FR 54940-54947; October 22, 1997, which has been incorporated by reference in Chapter 4.

"Board" means the Chattanooga-Hamilton County Air Pollution Control Board.

"Bureau" means the Chattanooga-Hamilton County Air Pollution Control Bureau.

"Certification" shall mean a notarized attested statement under oath by a responsible official of the truth, accuracy, and completeness that, based on information and belief formed after reasonable inquiry the statements and information in the document or submittal are true, accurate and complete. It shall constitute a certification under T.C.A. 68-201-112, as amended in 1994.

"Designated representative" shall have the meaning given to it in section 402(26) of the Act [42 U.S.C. §7651a.(26)] which is a responsible person or official authorized by the owner or operator of a unit to represent the owner or operator in matters pertaining to the holding, transfer, or disposition of allowances allocated to a unit, and the submission of and compliance with permits, permit applications, and compliance plans for the unit.

"Director" means the director of the Chattanooga-Hamilton County Air Pollution Control Bureau.

"Draft permit" means the version of a permit for which the permitting authority offers public participation under Section 4-58(h) of this ordinance or affected State review under Section 4-59 of this ordinance.

"Emissions allowable under the permit" means a legally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or an 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 Act [42 U.S.C.

§7412(b)]. This term is not meant to alter or affect the definition of the term "unit" for purposes of any other part of the local ordinance.

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

"Final permit" means the version of a part 70 permit issued by the permitting authority that has completed all review procedures required by this ordinance and by federal law.

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

"General permit" means a part 70 permit that has been issued pursuant to and meets the requirements of Section 4-57(d) of this ordinance.

"Local governments" means Hamilton County, Tennessee, and all included municipalities.

"Local program" (for this part of the ordinance) means part 70 program as hereinafter defined.

"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 paragraphs (1), (2), or (3) of this definition. For the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial groupingif 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 Act [42 U.S.C. §7412], 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 Act [42 U.S.C. §7412(b)], 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 sentences, 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 identified in this ordinance by amendment subsequent to the action of the Administrator.

(2) A major stationary source of air pollutants, as defined in section 302 of the Act [42 U.S.C. §7602(j)], that directly emits or has the potential to emit, 100 tpy or more of any 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 section 302(j) of the Act [42 U.S.C. §7602(j)], unless the source belongs to one of the following categories of stationary source:

(i) Coal cleaning plants (with thermal dryers);
(ii) Kraft pulp mills;
(iii) Portland cement plants;
(iv) Primary zinc smelters;
(v) Iron and steel mills;
(vi) Primary aluminum ore reduction plants;
(vii) Primary copper smelters;
(viii) Municipal incinerators capable of charging more than 250 tons of refuse per day;
(ix) Hydrofluoric, sulfuric, or nitric acid plants;
(x) Petroleum refineries;
(xi) Lime plants;
(xii) Phosphate rock processing plants;
(xiii) Coke oven batteries;
(xiv) Sulfur recovery plants;
(xv) Carbon black plants (furnace process);
(xvi) Primary lead smelters;
(xvii) Fuel conversion plant;
(xviii) Sintering plants;
(xix) Secondary metal production plants;
(xx) Chemical process plants;
(xxi) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
(xxii) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;

(xxiii) Taconite ore processing plants;
(xxiv) Glass fiber processing plants;
(xxv) Charcoal production plants;
(xxvi) Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; or
(xxvii) All other stationary source categories regulated by a standard promulgated under section 111 or 112 of the Act [42 U.S.C. §7411 and §7412], in 40 CFR Parts 60, 61, 63 and 68, which are incorporated herein by reference as an "applicable requirement" in Section 4-53 of this ordinance, but only with respect to those air pollutants that have been regulated for that category.

(3) A major stationary source as defined in part D of Title I of the Act, including:

(i) For ozone nonattainment areas, sources with the potential to emit 100 tpy or more of volatile organic compounds or oxides of nitrogen in areas classified as "marginal" or "moderate," 50 tpy or more in areas classified as "serious," 25 tpy or more in areas classified as "severe," and 10 tpy or more in areas classified as "extreme"; except that the references in this paragraph to 100, 50, 25, and 10 tpy of nitrogen oxides shall not apply with respect to any source for which the Administrator has made a finding, under section 182(f)(1) or (2) of the Act [42 U.S.C. §7511a.(f)(1) or (2)], that requirements under section 182(f) of the Act [42 U.S.C. §7511a.(f)] do not apply;

(ii) For ozone transport regions established pursuant to section 184 of the Act [42 U.S.C. §7511c], sources with the potential to emit 50 tpy or more of volatile organic compounds;

(iii) For carbon monoxide nonattainment areas (1) that are classified as "serious," and (2) in which stationary sources contribute significantly to carbon monoxide levels as determined under rules issued by the Administrator, sources with the potential to emit 50 tpy or more of carbon monoxide; and

(iv) For particulate matter (PM-10) nonattainment areas classified as "serious," sources with the potential to emit 70 tpy or more of PM-10.

"Modification" means any physical change in, or change in the method of operation of, a regulated air pollutant source which increases the actual emissions of any regulated air pollutant emitted by such source or increases its potential to emit any regulated air pollutant or which results in the emission of any regulated air pollutant not previously emitted by it.

"Owner or operator" means any person who owns, leases, operates, controls, or supervises a source.

"Part 70 application" means an application which fully complies with the requirements of Section 4-56 of this ordinance.

"Part 70 general permit" means a part 70 permit issued under Section 4-57(d) of this ordinance.

"Part 70 permit" or "permit" (unless the context suggests otherwise) means any permit or group of permits covering a part 70 source that is issued, renewed, amended, or revised pursuant to this ordinance.

"Part 70 program" or "Local program" means the program, established by ordinance, approved by the Administrator under 40 CFR Part 70.

"Part 70 source" means any source subject to the permitting requirements of this ordinance and as required in 40 CFR §§70.3(a) and 70.3(b) and as set forth in Section 4-54 of this ordinance.

"Permit modification" means a revision to a part 70 permit that meets the requirements of 40 CFR §70.7(e) and Section 4-58(e) of this ordinance.

"Permit program costs" means all reasonable (direct and indirect) costs required to develop and administer a permit program, as set forth in 40 CFR §70.9(b) and Section 4-60(b) of this ordinance (whether such costs are incurred by the permitting authority or other agencies that do not issue permits directly, but that support permit issuance or administration).

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

"Permitting authority" means either of the following:

(1) The Administrator, in the case of EPA-implemented programs; or

(2) The director of the Chattanooga-Hamilton County Air Pollution Control Bureau, acting under delegation of authority from the Board. Upon appeal of a permit issuance, denial, condition, failure to act or other permit action (or any other time that the Chairman of the Board asserts the primacy of the Board), the permitting authority is the Chattanooga-Hamilton County Air Pollution Control Board.

"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 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 under this ordinance and by the Administrator. This term does not alter or affect the use of this term for any other purposes under any other sections of this ordinance or under the Act, or the term "capacity factor" as used in Title IV of the Act or the regulations promulgated thereunder at 40 CFR Part 72 adopted by reference in Section 4-52(d) of this ordinance.

"Proposed permit" means the version of a permit that the permitting authority proposes to issue and forwards to the Administrator for review in compliance with 40 CFR §70.8.

"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 in 40 CFR Part 50, revised July 1, 1993 which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115;

(3) Any pollutant that is subject to any standard that has been promulgated under section 111 of the Act [42 U.S.C. §7411] in 40 CFR Part 60, revised as of July 1, 1993, which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115 or Section 4-41, Rule 15 of the Chattanooga Air Pollution Control Ordinance.

(4) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act in 40 CFR Part 82, Revised as of July 1, 1993, which is incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115.

(5) Any pollutant subject to a standard that has been promulgated under section 112 of the Act [42 U.S.C. §7412] in 40 CFR Part 61, revised as of July 1, 1993, and 40 CFR Part 63 revised as of July 1, 1993, which are incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115, and 40 CFR Part 63, Subpart A "General Provisions" at 59 FR 12430-12459; 40 CFR Part 63 Subparts F, G, H and I, "Synthetic Organic Chemical Manufacturing Industry" at 59 FR 19453-19625; 40 CFR Subpart M, "National Perchloroethylene Air Emissions Standards for Dry Cleaning Facilities" at 58 FR 49376-49380 and 58 FR 66289; 40 CFR Part 63, Subpart L, "National Emission Standards for Coke Oven Batteries" at 58 FR 57911-

57935 and 59 FR 1992; 40 CFR Part 63, Subpart E, "Approval of State Programs and Delegation of Federal Authorities" at 58 FR 62283-62288; Title 40 CFR Part 63 at 58 FR 62543; 40 CFR Part 63, Subpart B, "Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j)" at 59 FR 26449-26454; and 40 CFR Part 63, Subpart G, 49 FR 29201 and 40 CFR Part 68 at 59 FR 4493-4499 which are incorporated herein by reference pursuant to the provisions of T.C.A. 68-201-115, including the following:

(i) Any pollutant subject to requirements under section 112(j) of the Act [42 U.S.C. §7412(j)]. If the Administrator fails to promulgate a standard by the date established pursuant to section 112(e) of the Act [42 U.S.C. §7412(e)], any pollutant for which a subject source would be a major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to section 112(e) of the Act [42 U.S.C. §7412(e)]; and

(ii) Any pollutant for which the requirements of section 112(g)(2) of the Act [42 U.S.C. §7412(g)(2)] have been met, but only with respect to the individual source subject to section 112(g)(2) of the Act [42 U.S.C. §7412(g)(2)] requirements.

"Regulated pollutant (for presumptive fee calculation)," which is used only for purposes of Section 4-60 of this ordinance, means any "regulated air pollutant" except the following:

(1) Carbon monoxide;

(2) Any pollutant that is a regulated air pollutant solely because it is a Class I or II substance subject to a standard that has been promulgated under or established by Title VI of the Act. The standards referred to are found at 40 CFR Part 82, revised as of July 1, 1993, which are incorporated by reference at Section 4-53 "Applicable requirement" (9) of this ordinance; or

(3) Any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under section 112(r) of the Act [42 U.S.C. §7412(r)] which is incorporated herein by reference pursuant to the provisions of T.C.A. §68-201-115.

(4) Any pollutant resulting from any insignificant activity listed at Section 4-56(c)(11) and Section 4-56(c)(12) of this ordinance.

"Renewal" means the process by which a permit is reissued at the end of its term.

"Research and development facility" means any stationary source 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 commercial sale in commerce, except where such sales do not exceed 2% of the gross receipts of the source for which it is conducting the research and development.

"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. For corporations qualifying under the criteria below, a "responsible official" may be 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 l980 dollars); or

(ii) the delegation of authority to such representative is approved in advance by the permitting authority;

(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:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions are concerned under Title IV of the Act or any applicable requirement promulgated thereunder which are adopted by reference at Section 4-52(d) of this ordinance; and

(ii) The designated representative for any other purposes under 40 CFR Part 70.

"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), recordkeeping, reporting, or compliance certification requirements.

"Significant change" shall have the meaning set forth in Section 4-58(e)(3)(i) of this ordinance.

"State" means any non-Federal permitting authority, including any local agency, interstate association, or statewide program. Where such meaning is clear from the context, "State" shall have its conventional meaning. For purposes of the acid rain program, the term "State" shall be limited to authorities within the 48 contiguous States and the District of Columbia as provided in section 402(14) of the Act [42 U.S.C. §7651a.(14)].

"State Implementation Plan", "Implementation Plan" or "SIP" means the Chattanooga portion of the Tennessee State Implementation Plan.

"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 Act [42 U.S.C. §7412(b)].

"Synthetic minor source" means a source that would otherwise be considered a part 70 source, due to its potential to emit, if it were not for a mutually agreed upon, more restrictive, federally enforceable limitation, contained in an installation permit, or certificate of operation issued pursuant to Section 4-8 of the Chattanooga Air Pollution Control Ordinance upon the potential to emit of that source under its physical and operational design. All emissions limitations, controls, and other requirements imposed by such permit or certificate of operation shall be at least as stringent as any other applicable limitations and requirements contained in the Chattanooga Air Pollution Control Ordinance and enforceable thereunder.

"Temporary locations" means the locations that conform to Section 4-57(e) of this ordinance. (Ord. No. 10114, § 2, 9-27-94; Ord. No. 10297, §§ 2-3, 10-3-95; Ord. No. 10786, §§ 52 & 59, 10-27-98)

Sec. 4-54. Applicability.

(a) Part 70 sources. This ordinance applies to emissions units at part 70 sources and to part 70 sources which are defined to be:

(1) Any major source;

(2) Any source, including an area source, subject to a standard, limitation, or other requirement under section 111 of the Act [42 U.S.C. §7411];

(3) Any source, including an area source, subject to a standard or other requirement under section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of the Act [42 U.S.C. §7412(r)];

(4) Any affected source; and

(5) Any source in a source category designated by the Administrator pursuant to 40 CFR §70.3 and which, in the event of such designation, shall be included into local law by amendment to the ordinance.

(b) Source category exemptions.

(1) The following sources listed in paragraph (a) of this section that are not major sources, affected sources, or solid waste incineration units required to obtain a permit pursuant to section 129(e) of the Act [42 U.S.C. §7429], are not Part 70 sources and are exempted from the obligation to obtain a part 70 permit until such time as specified below:

a. Perchloroethylene Dry Cleaning Facilities. Pursuant to Title 40 CFR Part 63, §63.320 of Subpart M--National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities, as amended at 61 FR 27788 on June 3, 1996, a source subject to Subpart M that is neither a 'major source', as defined in Section 4-2, nor a source located at a major source, is deferred from Part 70 source operating permit program requirements until December 9, 1999. Each source subject to this deferral shall submit its Part 70 permit application not later than December 9, 2000. Each source subject to this deferral shall meet the compliance schedule as stated in Title 40 CFR Part 63, §63.320, which has been incorporated by reference in Chapter 4.

(2) In the case of non-major sources subject to a standard or other requirement promulgated under either section 111 or section 112 of the Act [42 U.S.C. §7411 or 7412] after July 21, 1992, the Administrator has reserved the right to determine

whether to exempt any or all such applicable sources from the requirement to obtain a part 70 permit and such determination will be incorporated thereafter by amendment of this ordinance.

(3) Any source listed in paragraph (a) of this section which has been declared exempt from the requirement to obtain a permit under this section may opt to apply for a permit under a part 70 program.

(4) The following source categories are exempted from the obligation to obtain a part 70 permit:

(i) All sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR Part 60, Subpart AAA - Standards of Performance for New Residential Wood Heaters; and

(ii) All sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR Part 61, Subpart M - National Emission Standard for Hazardous Air Pollutants for Asbestos, §6l.145, Standard for Demolition and Renovation.

(5) Research and development facilities and operations (R & D operations) are not exempt sources or exempt emissions units, but R & D operations are entitled to special treatment. The permitting authority will treat an R & D facility as separate from the manufacturing facility with which it is co-located. The R & D facility will be treated as though it were a separate source and is required to have a part 70 permit only if the R & D facility itself is a major source.

(c) Emissions units and part 70 sources.

(1) For major sources, the permitting authority shall include in the permit all applicable requirements for all relevant emissions units in the major source.

(2) For any non-major source subject to the part 70 program under paragraphs (a) or (b) of this section, the permitting authority shall include in the permit all applicable requirements applicable to emissions units that cause the source to be subject to the part 70 program.

(d) Fugitive emissions. Fugitive emissions from a part 70 source shall be included in the part 70 permit application and the part 70 permit in the same manner as stack emissions, regardless of

whether the source category in question is included in the list of sources contained in the definition of major source.

(e) Synthetic minor sources. A part 70 source may choose to request federally enforceable physical or operational limitations on its potential to emit in order to avoid applicability of this ordinance. Such source must:

(1) Comply with all requirements of Section 4-8 of the Chattanooga Air Pollution Control Ordinance;

(2) Undergo public participation requirements. This requires that notice of a draft initial certificate(s) of operation for a synthetic minor source shall be given to the general public at least thirty (30) days in advance of a public hearing on the draft initial certificate(s) of operation and shall provide at least thirty (30) days for public comment. Such notice shall be given by publication in a newspaper of general circulation in Hamilton County, Tennessee. In addition, a copy of the draft certificate(s) of operation for a synthetic minor source shall be delivered to the U.S. Environmental Protection Agency at least thirty (30) days in advance of a public hearing on the draft certificate(s) of operation. Such advance notice must be given and a public hearing must be held prior to issuance of any certificate of operation to a synthetic minor source. Any certificate of operation issued to a synthetic minor source shall contain a statement of basis comparing the source's potential to emit with the synthetic limit to emit and a description of the procedures to be followed that will insure that the limit on which the director bases a determination that a source is a synthetic minor source and not a "major source", as defined in this ordinance, is not exceeded;

(3) Submit a written request to the permitting authority within 12 months of becoming subject to this ordinance seeking synthetic minor source status. This request must contain the proposed physical and operational limitations on potential to emit; and

(4) Be granted synthetic minor source status and maintain the operational and other criteria by which it gained that designation.

(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10786, § 53, 10-27-98)

Sec. 4-55. Local program submittals and transition.

(a) The permitting authority shall develop and the Board shall adopt by Resolution, the following:

(1) A complete program description describing how the municipality through the permitting authority intends to carry out its responsibilities under 40 CFR Part 70.

(2) (i) Copies of the permit form(s), application form(s), and reporting form(s) that the permitting authority intends to employ in its program; and

(ii) Relevant guidance issued by the permitting authority to assist in the implementation of its permitting program, including criteria for monitoring source compliance (e.g., inspection strategies).

(3) A demonstration, consistent with Section 4-60(c) of this ordinance and with 40 CFR §70.9, that the permit fees required by the program are sufficient to cover permit program costs.

(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-56. Permit applications.

(a) *Duty to apply*. For each part 70 source, the owner or operator shall submit to the permitting authority a timely and complete permit application in accordance with the requirements of 40 CFR Part 70 and the requirements of this ordinance.

(1) *Timely application.*

(i) A timely application for a source applying for a part 70 permit for the first time is one that is submitted within 12 months after the source becomes subject to this ordinance.

(ii) Part 70 sources or emissions units at part 70 sources required to meet the requirements under section 112(g) of the Act [42 U.S.C. §7412], or to have a permit under the preconstruction review program approved into the applicable implementation plan under part C or D of Title I of the Act, shall file a complete application to obtain the part 70 permit or permit revision within 12 months after commencing operation or on or before such earlier date as the permitting authority may establish. Any operation prior to obtaining a fully approved part 70 permit shall be subject to any applicable requirements of the provisions of this ordinance. Where an existing part 70 permit would prohibit such construction or change in operation, the source must obtain a permit revision before commencing operation.

(iii) For purposes of permit renewal, a timely application is one that is submitted at least 6 months prior to the date of permit expiration.

(iv) Applications for initial phase II acid rain permits shall be submitted to the permitting authority by January 1, 1996 for sulfur dioxide, and by January 1, 1998 for nitrogen oxides.

(2) *Complete application.* To be deemed complete, an application must provide all information required pursuant to paragraph (c) of this section, except that applications for permit revision need supply such information only if it is related to the proposed change. Information required under paragraph (c) of this section must be sufficient to evaluate the subject source and its application and to determine all applicable requirements. The application shall require that a responsible official certify the submitted information consistent with paragraph (d) of this section. Unless the permitting authority determines that an application is not complete within 60 days of receipt of the application, such application shall be deemed to be complete, except as otherwise provided in Section 4-58(a)(4) of this ordinance. If, while processing an application that has been determined or deemed to be complete, the permitting authority determines that additional information is necessary to evaluate or take final action on that application, it may request such information in writing and set a reasonable deadline for a response. The source shall furnish the required information. The source's ability to operate without a part 70 permit, as set forth in Section 4-58(b) of this ordinance, shall be in effect from the date the application is determined or deemed to be complete until the final permit is issued, provided that the applicant submits any requested additional information by the deadline specified by the permitting authority. Any terms and conditions effective in the most recently issued installation permits and certificates of operation issued to a Part 70 source in accordance with Section 4-8 of the Chattanooga Air Pollution Control Ordinance prior to the effective date of its initial issued Part 70 permit shall continue in full force and effect pending final action on the application. A completeness determination shall be made within 60 days of receipt of the application.

(3) *Confidential information.* In the case where a source has submitted information to the permitting authority under a claim of confidentiality, the permitting authority may also require the source to submit a copy of such information directly to the Administrator.

(b) *Duty to supplement or correct application.* Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming

aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

(c) *Standard application form and required information.* The permitting authority shall provide for a standard application form or forms. Information as described below for each emissions unit at a part 70 source shall be included in the application. The Administrator has reserved the overriding authority under 40 CFR §70.5(c) to approve or disapprove a list of insignificant activities and emissions levels. Subject to the approval of the Administrator and effective only after such approval, the activities listed at Section 4-56(c)(11) of this ordinance are deemed to be insignificant activities that need not be included in the permit application. Subject to the approval of the Administrator and effective only after such approval, the activities listed at Section 4-56(c)(12) of this ordinance are deemed to be insignificant activities because of size or production rate that must be included in the permit application in accordance with the permit forms as approved by the board pursuant to Section 4-55(a)(2) of this ordinance. The activities listed at Section 4-56(c)(12) need not comply with the requirements of Section 4-56(c)(1) through (c)(9) of this ordinance. An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement, or to evaluate the fee amount required under the schedule approved pursuant to 40 CFR §70.9. The forms and attachments chosen, however, shall include the elements specified below:

(1) Identifying information, including company name and address (or 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.

(2) A description of the source's processes and products (by Standard Industrial Classification Code) including any associated with each alternate scenario identified by the source.

(3) The following emissions-related information:

(i) All emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except where such units are exempted under this paragraph (c). The permitting authority shall require additional information related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source, and other information necessary to collect any permit fees owed under the fee schedule approved pursuant to Section 4-60(b) of this ordinance.

(ii) Identification and description of all points of emissions described in paragraph (c)(3)(i) of this section in sufficient detail to establish the basis for fees and applicability of requirements of the Act.

(iii) Emissions rates in tons per year (tpy) and in such terms as are necessary to establish compliance consistent with the applicable standard reference test method.

(iv) The following information to the extent it is needed to determine or regulate emissions: fuels, fuel use, raw materials, production rates, and operating schedules.

(v) Identification and description of air pollution control equipment and compliance monitoring devices or activities.

(vi) Limitations on source operation affecting emissions or any work practice standards, where applicable, for all regulated pollutants at the part 70 source.

(vii) Other information required by any applicable requirement (including information related to stack height limitations developed pursuant to section 123 of the Act [42 U.S.C. §7423]).

(viii) Calculations on which the information in items (i) through (vii) above is based.

(4) The following air pollution control requirements:

(i) Citation and description of all applicable requirements, and

(ii) Description of or reference to any applicable test method for determining compliance with each applicable requirement.

(5) Other specific information that may be necessary to implement and enforce other applicable requirements of the Act or of this part or to determine the applicability of such requirements.

(6) An explanation of any proposed exemptions from otherwise applicable requirements.

(7) Additional information as determined to be necessary by the permitting authority to define alternative operating scenarios identified by the source pursuant to Section 4-57(a)(9) of this ordinance or to define permit terms and conditions implementing Section 4-58(i) or Section 4-57(a)(10) of this ordinance.

(8) A compliance plan for all part 70 sources that contains all the following:

(i) A description of the compliance status of the source with respect to all applicable requirements.

(ii) A description as follows:

(A) For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements.

(B) For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis.

(C) For requirements for which the source is not in compliance at the time of permit issuance, a narrative description of how the source will achieve compliance with such requirements.

(iii) A compliance schedule as follows:

(A) For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements.

(B) For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner applicable requirements that become effective during the permit term shall satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirement.

(C) A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. Such a

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. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

(iv) 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.

(v) 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 Act which are incorporated by reference in Section 4-52(d) of this ordinance with regard to the schedule and method(s) the source will use to achieve compliance with the acid rain emissions limitations.

(9) Requirements for compliance certification, including the following:

(i) A certification of compliance with all applicable requirements by a responsible official consistent with paragraph (d) of this section and section 114(a)(3) of the Act [42 U.S.C. §7414];

(ii) A statement of methods to be used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods;

(iii) A schedule for submission of compliance certifications during the permit term, to be submitted no less frequently than annually, or more frequently if specified by the underlying applicable requirement or by the permitting authority; and

(iv) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act provided that these requirements have been identified in this ordinance by amendment subsequent to the action of the Administrator.

(10) 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 Act.

(11) The following activities, due to de minimis emissions levels, are deemed to be insignificant activities that need not be included in the permit application provided that potential emissions of criteria pollutants from an activity listed in § 4-56(c)(11) by a Part 70 source are less than five (5) tons per year; and provided that potential emissions of any single hazardous air pollutant from an activity listed in § 4-56(c)(11) by a Part 70 source are less than one thousand (1000) pounds per year; and provided that the activity involves no potential emissions of any Class I substance or Class II substance as defined in Title 42 U.S.C. 7671; and further provided that the activity listed in § 4-56(c)(11) is not subject to an applicable requirement, as that term is defined in § 4-53. Potential emissions of any air pollutant that is both a criteria pollutant and a hazardous air pollutant shall be subject to the more stringent threshold of one thousand (1000) pounds per year for the purposes of § 4-56(c)(11).

(i) Mobile sources such as: automobiles, trucks, buses, locomotives, planes, boats, and ships. This exemption only applies to the emissions from the internal combustion engines used exclusively to propel such vehicles;

(ii) Equipment used on farms for soil preparation, tending or harvesting of crops, or for preparation of feed to be used on the farm where prepared, except if subject to Title 40 CFR Part 60, Subpart DD, incorporated by reference in § 4-41, Rule 15;

(iii) Barbecue pits and cookers; if the products are edible (intended for human consumption), and are sold on site, or at one location;

(iv) Any air emission or air emission unit at a domestic residence for domestic use except where open burning requires permit issuance or is expressly prohibited;

(v) Wood smoking operations to cure tobacco in barns;

(vi) Operations exempted under Section 4-41, Rule 6 of the Chattanooga Air Pollution Control Ordinance;

(vii) Natural gas mixing and treatment operations including sampling and testing, except if subject to Title 40 CFR Part 60, Subparts KKK or LLL, incorporated by reference in § 4-41, Rule 15;

(viii) Wire drawing including drawing coolants and lubricants provided that they are water based;

(ix) Open air drying of wood;

(x) Exterior washing of trucks and vehicles, except with cleaners containing volatile organic compounds;

(xi) Sealing or cutting plastic film or foam with heat or hot wires, except processes that emit chlorofluorocarbons;

(xii) Combustion units designed and used exclusively for comfort heating purposes employing liquid petroleum gas, or natural gas as fuel;

(xiii) Comfort air conditioning systems or comfort ventilating systems which are not used to remove air contaminants generated by or released from specific units of equipment, except any activity subject to an applicable requirement promulgated under Title VI of the Act in Title 40 CFR Part 82;

(xiv) Water cooling towers (except for those at nuclear power plants), water treatment systems for process cooling water or boiler feedwater, and water tanks, reservoirs, or other water containers designed to cool, store, or otherwise handle water (including rainwater) that has not been in contact with gases or liquids containing carbon compounds, sulfur compounds, halogens or halogen compounds, cyanide compounds, inorganic acids, or acid gases, except for those using chromium-based water treatment chemicals;

(xv) Equipment used for hydraulic, or hydrostatic testing;

(xvi) Equipment used exclusively to store or hold dry natural gas, except if subject to Title 40 CFR Part 60, Subparts KKK or LLL, incorporated by reference in § 4-41, Rule 15;

(xvii) Gasoline, diesel fuel, and fuel oil handling facilities, equipment, and storage tanks, except those subject to Section 4-53 "Applicable Requirements" (3) of

this ordinance and Section 4-41, Rule 25.7, Rule 25.8, and Rule 25.9 of the Chattanooga Air Pollution Control Ordinance;

(xviii) Blast cleaning equipment using a suspension of abrasives in water;

(xvix) Laboratory equipment used exclusively for chemical and physical analyses, including ventilating and exhaust systems for laboratory hoods used for air contaminants other than radioactive air contaminants;

(xx) Reserved;

(xxi) Equipment used for inspection of metal products;

(xxii) Brazing, soldering or welding operations which do not release hexavalent chromium compounds or hazardous air pollutants subject to regulations promulgated pursuant to Section 112 of the Act;

(xxiii) Laundry dryers, extractors, or tumblers used for fabrics cleaned with water solutions of bleach or detergents;

(xxiv) Foundry sand mold forming equipment producing molds to which no heat is applied and from which no organics are emitted;

(xxv) Reserved;

(xxvi) Mixers, blenders, roll mills, or calenders for rubber or plastics where no materials in powder form are added and in which no organic solvents, dilutents, or thinners are used;

(xxvii) Vacuum cleaning systems used exclusively for industrial, commercial, or residential housekeeping purposes, except those systems used to collect hazardous air contaminants subject to Section 4-53 "Applicable Requirement" (3) of this ordinance;

(xxviii) Reserved;

(xxix) Repairs or general maintenance not involving structural changes where no new or permanent facilities are installed, not conducted as part of a manufacturing process, not related to the source's primary business activity, not otherwise

triggering a permit modification or permanent increase in emissions, and not subject to control requirements for volatile organic compounds or hazardous air pollutants;

(xxx) Alkaline/phosphate washers and associated burners;

(xxxi) Outdoor heaters fueled by kerosene;

(xxxii) Livestock and poultry feedlots;

(xxxiii) Reserved;

(xxxiv) Blueprint copiers and photocopying;

(xxxv) Reserved;

(xxxvi) Reserved;

(xxxvii) Funeral homes, excluding crematoriums;

(xxxviii) Gas flares or flares used solely to indicate danger to the public;

(xxxix) Firefighting equipment and the equipment used to train firefighters;

(xl) Equipment used for cooking food for immediate human consumption;

(xli) Blacksmith forges;

(xlii) Clean steam condensate and steam relief vents;

(xliii) Boiler water treatment operations, excluding cooling towers;

(xliv) Reserved;

(xlv) Herbicide and pesticide dilution and application activities for on site use;

(xlvi) Routine building maintenance, lawn maintenance, house-keeping, and administrative activities, such as painting buildings, roofing, sandblasting, paving parking lots, lawn care activities, all clerical activities, and all janitorial activities;

(xlvii) Miscellaneous activities and equipment, such as: cafeteria vents, bathroom vents, locker room vents, copying, blue print machines, decommissioned equipment, dumpsters, fire training, refrigerators, and space heaters;

(xlviii) Cold storage refrigerator equipment, excluding equipment that uses a Class I substance or a Class II substance as defined in Title 42 U.S.C. 7671;

(il) Equipment used for portable steam cleaning;

(l) Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissions;

(li) Sampling connections used exclusively to withdraw materials for testing and analysis, including air contaminant detectors and vent lines;

(lii) Laboratories in primary and secondary schools and in schools of higher education used for instructional purposes;

(liii) Equipment used exclusively for rolling, forging, pressing, stamping, spinning, drawing, or extruding either hot or cold metals unless their emissions exceed any applicable regulated amount;

(liv) Reserved;

(lv) Grain, metal or mineral extrusion process;

(lvi) Equipment used exclusively for mixing and blending water-based adhesives and coatings at ambient temperatures and from which no organics are released;

(lvii) Reserved;

(lviii) Steam heated wood drying kilns, not used for chemically treated wood;

(lix) Unpaved roadways and parking areas not regularly used for traffic unless permits have specific conditions limiting fugitive emissions;

(lx) Warehouse activities, including the storage of packaged raw materials and finished goods, excluding activities that emit hazardous air pollutants or volatile organic compounds;

(lxi) Electric stations, including transformers, battery charging and substations, excluding activities that emit polychlorinated biphenyls (PCBs);

(lxii) Compressors and vacuum producing equipment not fueled by gasoline or diesel;

(lxiii) Groundwater monitoring wells;

(lxiv) Reserved;

(lxv) Use of materials for marking and grading of lumber, and the storage of lumber;

(lxvi) Reserved;

(lxvii) Reserved;

(lxviii) Equipment used in the production of aqueous inks in which no organic solvents, dilutents, or thinners are used;

(lxix) Equipment used to transport or store process wastewater streams to a wastewater treatment facility (i.e. floor drains, sumps, drain headers, manhole covers);

(lxx) Vacuum seal pot and vacuum pumps;

(lxxi) Presses used exclusively for extruding metals, minerals, plastics, rubber, or wood except where halogenated carbon compounds or hydrocarbon organic solvents are used as foaming agents. Presses used for extruding scrap materials or reclaiming scrap materials are not insignificant activities;

(lxxii) Tank trucks, railcars, barges, and trailers, excluding transfer and loading operations that are subject to an applicable requirement, as defined in § 4-53 of this chapter, and excluding internal cleaning operations that emit hazardous air pollutants or volatile organic compounds;

(lxxiii) Dumpsters;

(lxxiv) Environmental field sampling activities;

(lxxv) Cleaning, polishing, and other housekeeping activities associated with custodial duties;

(lxxvi) Instrument air dryers and distribution;

(lxxvii) Automatic oiling operations (e.g., oiler on chains);

(lxxviii) Machine blowdown with air for cleanup;

(lxxix) Architectural, structural, and maintenance coating operations in which the articles being coated are coated in place, excluding activities that are part of a manufacturing process or that are part of the source's primary business activity;

(lxxx) Sand blasting operations in which the operations are conducted on articles which are fixed in place, excluding activities that are part of a manufacturing process or that are part of the source's primary business activity;

(lxxxi) Welding operations for maintenance or field fabrication in which the articles being welded are fixed in place;

(lxxxii) Sanitary sewer systems;

(lxxxiii) Reserved;

(lxxxiv) Use of office equipment and supplies;

(lxxxv) Treatment systems for potable water; and

(lxxxvi) Coal-Fired Steam Generating Facilities Insignificant Activities are as follows:

Bunker room exhaust;
Coal sampling and weighing operations;
Vents from ash transport systems not operating at positive pressure (e.g. ash hoppers);

Coal combustion by-product disposal (except for dry stacking and intermittent ash hauling and disposal);
Building ventilation other than boiler room, coal handling, and ash loading (e.g. turbine room, battery room);
Lubrication of equipment except vents from oil vapor extractors;
Hydrogen vents;
Steam vents;
Air compressor and distribution systems;
Fugitive dust from operation of a passenger automobile, station wagon, pickup truck, or van;
Pressure relief valves;
Test gases and bottled gases;
Emissions from a laboratory (If a facility manufactures or produces products for profit in any quantity, it may not be considered to be a laboratory under this item);
Safety devices such as fire extinguishers;
Equipment used for hydraulic or hydrostatic testing;
Food preparation for onsite consumption;
Boiler room ventilation; and
Oil vapor extractor (e.g. turbine seal oil, turbine lube oil).

(lxxxvii) Reserved;

(12) The following activities, due to size and production rate, are deemed to be insignificant activities that must be included in the permit application in accordance with § 4-56 of this chapter provided that potential emissions of criteria pollutants from an activity listed in § 4-56(c)(12) by a Part 70 source are less than five (5) tons per year; and provided that potential emissions of any single hazardous air pollutant from an activity listed in § 4-56(c)(12) by a Part 70 source are less than one thousand (1000) pounds per year; and provided that the activity involves no potential emissions of any Class I substance or Class II substance as defined in Title 42 U.S.C. 7671; and further provided that the activity listed in § 4-56(c)(12) is not subject to an applicable requirement, as that term is defined in § 4-53. Potential emissions of any air pollutant that is both a criteria pollutant and a hazardous air pollutant shall be subject to the more stringent threshold of 1000 pounds per year for the purposes of § 4-56(c)(12).

(i) Fuel burning equipment of less than 500,000 Btu per hour capacity. This exemption shall not apply where the total capacity of all fuel burning equipment operated at a fuel burning installation exceeds 2.00 million Btu per hour;

(ii) A single stack of an air contaminant source that emits no regulated gaseous pollutants or any pollutants defined at Section 4-53 "Regulated Air Pollutant" (5) of this ordinance and which does not have potential emissions of more than 0.500 pounds per hour of particulates, provided that the total amounts to less than two (2) pounds per hour. For the purpose of this subparagraph, an air contaminant source includes all sources located within a contiguous area and under common control. This insignificant activity designation does not apply to incinerators or sources emitting lead or lead compounds.

(iii) Natural gas or propane-fired stationary internal combustion engines or gas turbines with less than 5 million BTU/hour heat input.

(iv) Processes used for the curing of rubber products and plastic products, except when emitting more than 1 pound per hour of volatile organic compounds. If applicable, associated heat input using natural gas, #2 fuel oil, or propane shall not exceed 5 million BTU per hour.

(v) Surface coating and degreasing operations which do not exceed a combined total usage of more than 60 gallons/month of coatings, thinners, clean-up solvents, and degreasing solvents, at any one location.

(vi) Fuel burning sources that are either gas fired or #2 oil fired with a heat input rate under 5 million BTU/hour, where the combined total heat input rate at each location does not exceed 5 million BTU/hour. This exemption does not apply to gas fired turbines greater than 5 million BTU/hour.

(vii) Machining of metals where total solvent usage does not exceed more than 60 gallons/month at any one location.

(viii) Non-continuous solvent recycling units with less than 60 gallons capacity.

(ix) Hand-held sprayer and airbrush graphic arts operations in which total organic solvent emissions from such operations at a facility do not exceed 15 pounds per day.

(x) Emission units not otherwise exempt under this paragraph with uncontrolled emissions of 100 pounds per year or less of any Class I or Class II substance

subject to a standard promulgated under or established by Title VI of the Act concerning stratospheric ozone protection.

(xi) Any change in the activity or level of operation of an air emissions unit that has the potential to increase emissions of any regulated air pollutant by less than 5 tons per year unless the change in the activity or level of operation increases the air emissions unit's potential to emit any regulated air pollutant to above 5 tons per year or if the change in the activity or level of operation is subject to Section 4-53 "Applicable Requirements" (3) and (4) of this ordinance.

(xii) Industrial wastewater treatment facilities which do not use air stripping or air sparging and do not release more than 0.5 tons/year of any regulated pollutant.

(xiii) Process equipment burning natural gas or #2 fuel oil with a heat input rate under 5 million BTU/hour where the combined total heat input rate at each facility does not exceed 5 million BTU/hour. Only the fuel burning emissions from these sources are considered insignificant activities.

(xiv) All storage tanks with a capacity of no more than 1,000 gallons (including 55 gallon drums used only for storage) except those emitting any hazardous air pollutant as set forth at Section 4-53 "Applicable Requirements" (4) of this ordinance.

(xv) All process tanks with a capacity of no more than 1,000 gallons where the combined total emissions from such tanks are less than 0.5 tons of any regulated air pollutant combined.

(xvi) Equipment used for compression molding and injection molding of plastics, excluding processes that involve the use of acrylics, polystyrene and related copolymers, and plasticizer, and limited to the blowing agents oxygen, nitrogen, carbon dioxide, air that is a mixture of gases with a composition of approximately 78% nitrogen and 21% oxygen by volume, or inert gas.

(xvii) All gas fired, #2 oil fired, infrared, and electric ovens with a heat input of no more than 5 million BTU/hour which have no emissions other than products of fuel combustion, unless they are associated with a source subject to § 4-53 "Applicable requirement" (3) of this chapter.

(xviii) Powder coating operations.

(xix) An "emergency generator" which is used when loss of primary electrical power occurs for reasons beyond the control of the source. In no event shall an "emergency generator" be operated for a period of time longer than 5 consecutive days or more than a total of 20 days in any calendar year, unless a source demonstrates to the director with clear and convincing evidence that reasonably unforeseeable events beyond the control of the source require use of the "emergency generator" for an additional period of time. The source shall maintain a written record of each loss of primary electrical power, including a record of the loss.

(xx) Equipment used exclusively for rolling, forging, pressing, stamping, spinning or extruding either hot or cold plastics that do not emit hazardous air pollutants.

(xxi) Lubricants and waxes used for machinery lubrication.

(d) Any application form, report, or compliance certification submitted pursuant to these regulations shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this ordinance shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(e) Transition plan. It is required that:

(1) Submittal of permit applications by all part 70 sources shall occur within 1 year after the date of approval of the permit program by the Administrator.

(2) Final action shall be taken on at least one-third of such applications each year over a period not to exceed 3 years after the date of approval of the permit program by the Administrator. Complete permit applications shall be processed in the order received with the first third of the part 70 permits issued within one year after the applications are submitted to the first third received; the second third within two years after the applications are submitted to remaining sources as determined by a random lottery; and the third issued within three years after the applications are submitted to the remaining sources. Initial issuance of part 70 permits may be for three, four or five year permit terms at the discretion of the director.

(3) Any complete permit application containing an early reduction demonstration under section 112(i)(5) of the Act [42 U.S.C. §7412] shall be acted on within 9 months of receipt of the complete application; and

(4) Submittal of permit applications and the permitting of affected sources shall occur in accordance with the deadlines in Title IV of the Act and set forth at Section 4-56(a)(1)(iv) of this ordinance and the applicable requirements promulgated under Title IV of the Act and incorporated by reference in this ordinance at Section 4-52(d).

(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10297, § 4, 10-3-95; Ord. No. 10378, §§ 1-6, 2-20-96; Ord. No. 10786, § 54, 10-27-98)

Sec. 4-57. Permit content.

The permitting authority shall issue and enforce permits in this municipality which conform with these provisions and shall require compliance therewith:

(a) *Standard permit requirements*. Each permit issued under this part shall include the following elements:

(1) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance and all requirements of 40 CFR Part 70 that apply to the emissions units and to the source.

(i) The permit shall specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based.

(ii) The permit shall state that, where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act and incorporated by reference in this ordinance at Section 4-52(d), both provisions shall be incorporated into the permit and shall be legally enforceable.

(iii) Because the Chattanooga Air Pollution Control Ordinance allows a determination of an alternative emission limit at a source, equivalent to that contained in Section 4-41 of the Chattanooga Air Pollution Control Ordinance, to be made in the permit issuance, renewal, or significant modification process, if the permitting authority elects to use such process, any permit containing such

equivalency determination shall contain provisions to ensure that any resulting emissions limit has been demonstrated to be quantifiable, accountable, enforceable, and based on replicable procedures.

(2) *Permit duration.* The permitting authority shall issue permits for a fixed term of 5 years in the case of affected sources, and for a term not to exceed 5 years in the case of all other part 70 sources. Notwithstanding this requirement, the permitting authority shall issue permits for solid waste incineration units combusting municipal waste subject to standards under section 129(e) of the Act [42 U.S.C. §7429(e)] for a period not to exceed 12 years and shall review such permits at least every 5 years. Any permit issued for a term of more than 3 years shall contain a condition that if EPA promulgates regulations or requirements which would be applicable to the source or any emissions unit of the source, then the permit will be reopened by agreement and the applicable requirement incorporated into the permit. Acceptance of the permit by the source constitutes consent to the agreement.

(3) *Monitoring and related recordkeeping and reporting requirements.*

(i) Each permit shall contain the following requirements with respect to monitoring:

(A) All monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements, including Title 42 CFR Part 64, which has been incorporated by reference in Chapter 4, and any other procedures and methods promulgated pursuant to sections 504(b) [42 U.S.C. §7661c.(b)] or 114(a)(3) [42 U.S.C. §7414(a)(3)] of the Act provided that these methods and procedures have been identified in this ordinance by amendment subsequent to the action of the Administrator. If more than one monitoring or testing requirement applies, the permit may specify a streamlined set of monitoring or testing provisions provided the specified monitoring or testing is adequate to assure compliance at least to the same extent as the monitoring or testing applicable requirements that are not included in the permit as a result of such streamlining;

(B) Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported

pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. The permitting authority shall determine whether and in what cases recordkeeping provisions are sufficient to meet the requirements of this paragraph (a)(3)(i)(B); and

(C) As necessary, requirements concerning the use, maintenance, and, where appropriate, installation of monitoring equipment or methods.

(ii) With respect to recordkeeping, the permit shall incorporate all applicable recordkeeping requirements and require, where applicable, the following:

(A) Records of required monitoring information that include the following:

(1) The date, place as defined in the permit, and time of sampling or measurements;

(2) The date(s) analyses were performed;

(3) The company or entity that performed the analyses;

(4) The analytical techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions as existing at the time of sampling or measurement;

(B) Retention of records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, 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.

(iii) With respect to reporting, the permit shall incorporate all applicable reporting requirements and require the following:

(A) Submittal of reports of any required monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Section 4-56(d) of this ordinance.

(B) Prompt reporting of deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The permitting authority shall define "prompt" in the permit in relation to the degree and type of deviation likely to occur and the applicable requirements.

(4) A permit condition prohibiting emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder and incorporated by reference in this ordinance at Section 4-52(d).

(i) 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.

(ii) 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.

(iii) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act and incorporated by reference in this ordinance at Section 4-52(d).

(5) A severability clause to ensure the continued validity of the various permit requirements in the event of a challenge to any portions of the permit.

(6) Provisions stating the following:

(i) The permittee must comply with all conditions of the part 70 permit. Any permit noncompliance constitutes a violation of both the ordinance and the federal Act and is grounds for joint or several enforcement action; for permit

termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(ii) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(iii) The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(iv) The permit does not convey any property rights of any sort, or any exclusive privilege.

(v) The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority 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 request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(7) A provision to ensure that a part 70 source pays fees to the permitting authority consistent with the fee schedule approved pursuant to 40 CFR §70.9 and set forth in Section 4-60 of this ordinance.

(8) *Emissions trading.* A provision stating that no permit revision shall be required, under any economic incentives, marketable permits, emissions trading and other similar programs or processes which have been approved by the permitting authority for changes that are provided for in the permit, but only when and where emissions trading is allowable and has been approved.

(9) Terms and conditions for reasonably anticipated operating scenarios identified by the source in its application as approved by the permitting authority. Such terms and conditions:

(i) Shall 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;

(ii) May extend the permit shield described in paragraph (f) of this section to all terms and conditions under each such operating scenario; and

(iii) Must ensure that the terms and conditions of each such alternative scenario meet all applicable requirements and all the requirements of this ordinance.

(10) Terms and conditions, if the permit applicant requests them, for the trading of emissions increases and decreases in the permitted facility, to the extent that the applicable requirements set forth in Section 4-53 of this ordinance provide for trading such increases and decreases without a case-by-case approval of each emissions trade. Such terms and conditions:

(i) Shall include all terms required under Sections 4-57(a) and (c) of this ordinance to determine compliance;

(ii) May extend the permit shield described in paragraph (f) of this section to all terms and conditions that allow such increases and decreases in emissions; and

(iii) Must meet all applicable requirements and requirements of this ordinance.

(b) *Federally-enforceable requirements.*

(1) All terms and conditions in a part 70 permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act.

(2) Notwithstanding paragraph (b)(1) of this section, the permitting authority shall specifically designate as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.

(c) *Compliance requirements.* All part 70 permits shall contain the following elements with respect to compliance:

(1) Consistent with paragraph (a)(3) of this section, compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. Any document (including reports) required by a part 70 permit shall contain a certification by a responsible official that meets the requirements of Section 4-56(d) of this ordinance.

(2) Inspection and entry requirements that require that, upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or an authorized representative to perform the following:

(i) Enter upon the permittee's premises where a part 70 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(iv) As authorized by the Act or by this ordinance, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(v) For purposes of (ii), (iii), and (iv) above, reasonable times shall be considered to be customary business hours, unless reasonable cause exists to suspect noncompliance with the Chattanooga Air Pollution Control Ordinance or any "Applicable requirement", as defined in Section 4-53 of this ordinance or with any permit issued by the permitting authority and the director specifically authorizes a designee to inspect a facility at any other time.

(3) A schedule of compliance consistent with Section 4-56(c)(8) of this ordinance.

(4) Progress reports consistent with an applicable schedule of compliance and Section 4-56(c)(8) of this ordinance to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the permitting authority. Such progress reports shall contain the following:

(i) Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) 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.

(5) Requirements for compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. Permits shall include each of the following:

(i) The frequency (not less than annually or such more frequent periods as specified in the applicable requirement or by the permitting authority) of submissions of compliance certifications;

(ii) In accordance with Section 4-57(a)(3) of this ordinance, a means for monitoring the compliance of the source with its emissions limitations, standards, and work practices;

(iii) A requirement that the compliance certification include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(A) The identification of each term or condition of the permit that is the basis of the certification;

(B) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required under Section 4-57(a)(3). If necessary, the owner or operator shall also identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

(C) The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Section 4-57(c)(5)(iii)(B). The certification shall identify each

deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under Title 40 CFR Part 64 occurred; and

(D) Such other facts as the permitting authority may require to determine the compliance status of the source.

(iv) A requirement that all compliance certifications be submitted to the Administrator as well as to the permitting authority; and

(v) Such additional requirements as may be required under sections 114(a)(3) and 504(b) of the Act [42 U.S.C. §7661c.(b) and §7414(a)(3)].

(6) Such other provisions as the permitting authority may require.

(d) *Part 70 general permits.*

(1) The permitting authority may, after notice and opportunity for public participation provided under Section 4-58(h) of this ordinance, issue a general permit covering numerous similar sources. Any such general permit shall comply with all requirements applicable to other part 70 permits and shall identify criteria by which sources may qualify for the part 70 general permit. To sources that qualify, the permitting authority shall grant the conditions and terms of the part 70 general permit. Notwithstanding the shield provisions of paragraph (f) of this section, the source shall be subject to enforcement action for operation without a part 70 permit if the source is later determined not to qualify for the conditions and terms of the part 70 general permit. Part 70 general permits shall not be authorized for affected sources under the acid rain program unless otherwise provided in regulations promulgated under Title IV of the Act which are incorporated by reference in Section 4-52(d) of this ordinance nor for non-part 70 sources.

(2) Part 70 sources that would qualify for a general permit must apply to the permitting authority for coverage under the terms of the general permit or must apply for a part 70 permit consistent with Section 4-56 of this ordinance. The permitting authority may, in the general permit, provide for applications which deviate from the requirements of Section 4-56 of this ordinance, provided that such applications meet the requirements of Title V of the Act, and include all information necessary to determine qualification for, and to assure compliance with, the general permit. Without repeating the public

participation procedures required under Section 4-58(h) of this ordinance, the permitting authority may grant a source's request for authorization to operate under a general permit, but such a grant shall not be a final permit action for purposes of judicial review.

(e) *Temporary sources.* The permitting authority may issue a single permit authorizing emissions from similar operations by the same source owner or operator at multiple temporary locations. 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 10 days in advance of each change in location; and

(3) Conditions that assure compliance with all other provisions of this section.

(f) *Permit shield.*

(1) Except as provided in this ordinance, the permitting authority shall, upon request by the responsible official who submits an application, expressly include in a part 70 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:

(i) Such applicable requirements are included and are specifically identified in the permit; or

(ii) The permitting authority, 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.

(2) A part 70 permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

(3) Nothing in this paragraph or in any part 70 permit shall alter or affect the following:

(i) The provisions of section 303 of the Act [42 U.S.C. §7603] (emergency orders), including the authority of the Administrator or the permitting authority under that section;

(ii) 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;

(iii) The applicable requirements of the acid rain program, consistent with section 408(a) of the Act [42 U.S.C. §7651g.(a)]; or

(iv) The ability of EPA to obtain information from a source pursuant to section 114 of the Act [42 U.S.C. §7414] or of the permitting authority to obtain information from a source pursuant to this ordinance.

(g) *Emergency provision*.--

(1) *Definition*. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(2) *Effect of an emergency*. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of paragraph (g)(3) of this section are met, unless an ambient air violation occurs as a result of the emergency.

(3) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

(ii) The permitted facility was at the time being properly operated;

(iii) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(iv) The permittee submitted notice of the emergency to the permitting authority within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph (a)(3)(iii)(B) of this section. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(4) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

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

(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10786, §§ 55-56 & 60, 10-27-98)

Sec. 4-58. Permit issuance, renewal, reopenings, and revisions.

(a) *Action on application.*

(1) A permit, permit modification, or renewal may be issued only if all of the following conditions have been met:

(i) The permitting authority has received a complete application for a permit, permit modification, or permit renewal, except that a complete application need not be received before issuance of a general permit under Section 4-57(d) of this ordinance;

(ii) Except for modifications qualifying for minor permit modification procedures under Section 4-58(e)(1) and (2) of this ordinance, the permitting authorityhas complied with the requirements for public participation under paragraph (h) of this section 4-58;

(iii) The permitting authority has complied with the requirements for notifying and responding to affected States under Section 4-59(b) of this ordinance;

(iv) The conditions of the permit provide for compliance with all applicable requirements and the requirements of this ordinance; and

(v) The Administrator has received a copy of the proposed permit and any notices required under 40 CFR §§70.8(a) and 70.8(b), and has not objected to issuance of the permit under 40 CFR §70.8(c) within the time period specified therein.

(vi) No permit for a solid waste incineration unit may be issued by an agency, instrumentality or person that is also responsible, in whole or in part, for the design and construction or operation of the unit.

(2) Except as provided under the initial transition plan provided for under Section 4-56(e) of this ordinance or under Title IV or Title V of the Act for the permitting of affected sources under the acid rain program, the permitting authority takes final action on each permit application (including a request for permit modification or renewal) within 18 months, or such lesser time established by the permitting authority, after receiving a complete application.

(3) Priority shall be given to taking action on applications for construction or modification under Title I, parts C and D of the Act.

(4) The permitting authority shall promptly provide notice to the applicant of whether the application is complete. Unless the permitting authority requests additional information or otherwise notifies the applicant of incompleteness within 60 days of receipt of an application, the application shall be deemed complete. For modifications processed through minor permit modification procedures, such as those in paragraphs (e)(1) and (2) of this section, a completeness determination is not required.

(5) The permitting authority shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions). The permitting authority shall send this statement to EPA and to any other person who requests it.

(6) The submittal of a complete application shall not affect the requirement that any source or emissions unit at a part 70 source have a preconstruction permit under Title I of the Act.

(b) *Requirement for a permit.* Except as provided in the following sentence, Section 4-58(i)(1) of this ordinance, and paragraphs Section 4-58(e)(1)(v) and (2)(v) of this ordinance, no part 70 source may operate after the time that it is required to submit a timely and complete application

under this ordinance after its approval by EPA, except in compliance with a permit issued under a part 70 program. If a part 70 source submits a timely and complete application for permit issuance (including for renewal), the source's failure to have a part 70 permit is not a violation of this ordinance until the permitting authority takes final action on the permit application, except as noted in this section. This protection shall cease to apply if, subsequent to the completeness determination made pursuant to paragraph (a)(4) of this section, and as required by Section 4-56(a)(2) of this ordinance, the applicant fails to submit by the deadline specified in writing by the permitting authority any additional information identified as being needed to process the application.

(c) *Permit renewal and expiration.*

(1) (i) Permits being renewed are subject to the same procedural requirements, including those for public participation, affected State and EPA review, that apply to initial permit issuance; and

(ii) Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with paragraph (b) of this section and Section 4-56(a)(1)(iii) of this ordinance.

(2) If the permitting authority fails to act in a timely way on a permit renewal, EPA may override the permitting authority to terminate or revoke and reissue the permit.

(3) If a timely and complete application for a permit renewal is submitted, consistent with Section 4-56(a)(2) of this ordinance, but the permitting authority has failed to issue or deny the renewal permit before the end of the term of the previous permit, then:

(i) The permit shall not expire until the renewal permit has been issued or denied and any permit shield that may be granted pursuant to Section 4-57(f) of this ordinance may extend beyond the original permit term until renewal; or

(ii) All the terms and conditions of the permit including any permit shield that may have been granted under this ordinance or pursuant to Section 4-57(f) of this ordinance shall remain in effect until the renewal permit has been issued or denied.

(4) Consistent with the requirements of this ordinance and 40 CFR Part 70, the permitting authority is authorized to terminate, modify, or revoke and reissue permits for cause.

(5) The permitting authority shall make available to the public for inspection any permit application, compliance plan, permit, and monitoring and compliance certification

report pursuant to section 503(e) of the Act [42 U.S.C. §7661b.(e)], except for information entitled to confidential treatment pursuant to section 114(c) of the Act [42 U.S.C §7414]. The contents of a part 70 permit shall not be entitled to protection under section 114(c) of the Act [42 U.S.C. §7414].

(d) *Administrative permit amendments.*

(1) 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) Allows for a change in ownership or operational control of a source where the permitting authority 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 has been submitted to the permitting authority;

(v) Incorporates into the part 70 permit the requirements from preconstruction review permits authorized under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of Section 4-58 and Section 4-59 of this ordinance 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 Section 4-57 of this ordinance; or

(vi) Incorporates any other type of change which the Administrator has determined as part of the approved part 70 program to be similar to those in paragraphs (d)(1)(i) through (iv) of this section provided that such "other type of change" has been identified in this ordinance by amendment subsequent to the action of the Administrator.

(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 Act which are incorporated by reference in this ordinance at Section 4-52(d).

(3) Administrative permit amendment procedures. An administrative permit amendment may be made by the permitting authority consistent with the following:

(i) The permitting authority 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 section of this ordinance.

(ii) The permitting authority 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.

(4) The permitting authority may, upon taking final action granting a request for an administrative permit amendment, allow coverage by the permit shield in Section 4-57(f) of this ordinance for administrative permit amendments made pursuant to paragraph (d)(1)(v) of this section which meet the relevant requirements of Sections 4-57, 4-58, and 4-59 of this ordinance for significant permit modifications.

(e) *Permit modification.* A permit modification is any revision to a part 70 permit that cannot be accomplished under the program's provisions for administrative permit amendments under paragraph (d) of this section. A permit modification for purposes of the acid rain portion of the permit shall be governed by regulations promulgated under Title IV of the Act which are incorporated by reference in this ordinance at Section 4-52(d).

(1) *Minor permit modification procedures.*

(i) *Criteria.*

(A) Minor permit modification procedures may be used only for those permit modifications that:

(1) Do not violate any applicable requirement;

(2) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

(3) 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;

(4) 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:

(A) A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Act; and

(B) An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act [42 U.S.C. §7412(i)(5)];

(5) Are not modifications under any provision of Title I of the Act; and

(6) Are not required by this ordinance to be processed as a significant modification.

(B) Notwithstanding paragraphs (e)(1)(i)(A) and (e)(2)(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.

(ii) *Application.* An application requesting the use of minor permit modification procedures shall meet the requirements of Section 4-56(c) of this ordinance and shall include the following:

(A) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

(B) The source's suggested draft permit;

(C) Certification by a responsible official, consistent with Section 4-56(d) of this ordinance, that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

(D) Completed forms for the permitting authority to use to notify the Administrator and affected States as required under 40 CFR §70.8.

(iii) *EPA and affected State notification.* Within 5 working days of receipt of a complete permit modification application, the permitting authority shall meet its obligation under Section 4-59(a)(1) and (b)(1) of this ordinance to notify the Administrator and affected States of the requested permit modification. The permitting authority promptly shall send any notice required under Section 4-59(b)(2) of this ordinance to the Administrator.

(iv) *Timetable for issuance.* The permitting authority may not issue a final part 70 permit modification until after EPA's 45-day review period or until EPA has notified the permitting authority that EPA will not object to issuance of the permit modification, whichever is first, although the permitting authority can approve the permit modification prior to that time. In the event of an objection by the Administrator, the director shall follow the procedures set forth at Section 4-59(c) of this ordinance. Within 90 days of the permitting authority'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 4-59(c) of this ordinance, whichever is later, the permitting authority shall:

(A) Issue the permit modification as proposed;

(B) Deny the permit modification application;

(C) Determine that the requested modification does not meet the minor permit modification criteria and should be reviewed under the significant modification procedures; or

(D) Revise the draft permit modification and transmit to the Administrator the new proposed permit modification as required by 40 CFR §70.8(a).

(v) *Source's ability to make change*. The source is allowed to make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions specified in paragraphs (e)(1)(iv)(A) through (C) 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.

(vi) *Permit shield*. The permit shield under Section 4-57(f) of this ordinance may not extend to minor permit modifications.

(2) *Group processing of minor permit modifications*. Consistent with this paragraph, the permitting authority may modify the procedure outlined in paragraph (e)(1) of this section to process groups of a source's applications for certain modifications eligible for minor permit modification processing.

(i) *Criteria*. Group processing of modifications may be used only for those permit modifications:

(A) That meet the criteria for minor permit modification procedures under paragraph (e)(1)(i)(A) of this section; and

(B) That collectively are below the threshold level approved by the Administrator as part of the approved program. This threshold shall be 10 percent of the emissions allowed by the permit for the emissions unit for which the change is requested, 20 percent of the applicable definition of major source in Section 4-53 of this ordinance, or 5 tons per year, whichever is least.

(ii) *Application*. An application requesting the use of group processing procedures shall meet the requirements of Section 4-56(c) of this ordinance and shall include the following:

(A) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

(B) The source's suggested draft permit.

(C) Certification by a responsible official, consistent with Section 4-56(d) of this ordinance, that the proposed modification meets the criteria for use of group processing procedures and a request that such procedures be used.

(D) A list of the source's other pending applications awaiting group processing, and a determination of whether the requested modification, aggregated with these other applications, equals or exceeds the threshold set under paragraph (e)(2)(i)(B) of this section.

(E) Certification, consistent with Section 4-56(d) of this ordinance, that the source has notified EPA of the proposed modification. Such notification need only contain a brief description of the requested modification.

(F) Completed forms for the permitting authority to use to notify the Administrator and affected States as required under Section 4-59 of this ordinance.

(iii) *EPA and affected State notification*. On a quarterly basis or within 5 business days of receipt of an application demonstrating that the aggregate of a source's pending applications equals or exceeds the threshold level set under paragraph (e)(2)(i)(B) of this section, whichever is earlier, the permitting authority promptly shall meet its obligation under Section 4-59(a)(1) and (b)(1) of this ordinance to notify the Administrator and affected States of the requested permit modifications. The permitting authority shall send any notice required under Section 4-59(b)(2) of this ordinance to the Administrator.

(iv) *Timetable for issuance*. The provisions of paragraph (e)(1)(iv) of this section shall apply to modifications eligible for group processing, except that the permitting authority shall take one of the actions specified in paragraphs (e)(1)(iv)(A) through (D) of this section within 180 days of receipt of the application or 15 days after the end of the Administrator's 45-day review period under Section 4-59(c) of this ordinance, whichever is later.

(v) *Source's ability to make change*. The provisions of paragraph (e)(1)(v) of this section shall apply to modifications eligible for group processing.

(vi) *Permit shield*. The provisions of paragraph (e)(1)(vi) of this section shall also apply to modifications eligible for group processing.

(3) *Significant modification procedures.*

(i) *Criteria*. Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. The permitting authority shall follow these criteria in determining whether a change is significant: Any change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing herein shall be construed to preclude the permittee from making changes consistent with this part that would render existing permit compliance terms and conditions irrelevant.

(ii) Significant permit modifications shall meet all requirements of this ordinance, including those for applications, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal. The permitting authority shall design and implement this review process to complete

review on the majority of significant permit modifications within 9 months after receipt of a complete application.

(f) *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 Act become applicable by ordinance amendment to a major part 70 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, unless the original permit or any of its terms and conditions has been extended pursuant to Section 4-58(c)(3) of this ordinance.

(ii) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator and amendment of this ordinance, excess emissions offset plans shall be incorporated into the permit by the permitting authority.

(iii) The permitting authority 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 permitting authority 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 paragraph (f)(1) of this section shall not be initiated before a notice of such intent is provided to the part 70 source by the permitting authority at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.

(g) *Reopenings for cause by EPA.*

(1) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit pursuant to paragraph (f) of this section, the Administrator is required by federal law to notify the permitting authority and the permittee of such finding in writing.

(2) The permitting authority shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. The Administrator may extend this 90-day period for an additional 90 days if he finds that a new or revised permit application is necessary or that the permitting authority must require the permittee to submit additional information.

(3) The Administrator is required by federal regulations to review the proposed determination from the permitting authority within 90 days of receipt.

(4) The permitting authority shall have 90 days from receipt of an EPA objection to follow the procedures set forth at Section 4-59(c) of this ordinance in an effort to resolve any objection that EPA makes.

(5) If the permitting authority fails to submit a proposed determination pursuant to paragraph (g)(2) of this section or fails to resolve any objection pursuant to paragraph (g)(4) of this section, the Administrator is required by federal law to exercise override authority and to terminate, modify, or revoke and reissue the permit after taking the following actions:

(i) Providing at least 30 days' notice to the permittee in writing of the reasons for any such action. This notice may be given during the procedures in paragraphs (g)(1) through (4) of this section.

(ii) Providing the permittee an opportunity for comment on the Administrator's proposed action and an opportunity for a hearing.

(h) *Public participation.* Except for modifications qualifying for minor permit modification procedures, all permit proceedings, including initial permit issuance, significant modifications, and renewals, shall provide adequate procedures for public notice including offering an opportunity for public comment and a hearing on the draft permit. These procedures include the following:

(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; to persons on a mailing list developed by the permitting authority, including those who request in writing to be on the list; and by other means if necessary to assure adequate notice to the affected public;

(2) The notice shall identify the affected facility; the name and address of the permittee; the name and address of the permitting authority processing the permit; 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 the compliance plan, and monitoring and compliance certification report pursuant to section 503(e) of the Act, except for information entitled to confidential treatment pursuant to Section 114(c) of the Act [the contents of a part 70 permit shall not be entitled to confidential treatment under section 114(c) of the Act.], and all other materials available to the permitting authority that are relevant to the permit decision; a brief description of the comment procedures required by this part; 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 permitting authority shall provide such notice and opportunity for participation by affected States as is provided for by Section 4-59 of this ordinance;

(4) *Timing*. The permitting authority 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.

(5) The permitting authority shall keep a record of the commentors and also of the issues raised during the public participation process so that the Administrator may fulfill his obligation under section 505(b)(2) of the Act [42 U.S.C. §7661d.(b)(2)] to determine whether a citizen petition may be granted, and such records shall be available to the public. [40 CFR §70.7]

(i) *Operational Flexibility*. Consistent with paragraphs (i)(1) through (3) of this section changes within a permitted facility are allowed without requiring a permit revision, if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions): Provided that the facility provides the Administrator and the permitting authority with written notification as required below in advance of the proposed changes, which shall be a minimum of 7 days, unless the permitting authority provides a different time frame for emergencies. The source, permitting

authority, and EPA shall attach each such notice to their copy of the relevant permit. The following provisions implement this requirement:

(1) The source shall be allowed to make section 502(b)(10) of the Act [42 U.S.C. §7661a.(b)(10)] changes without requiring a permit revision, if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions).

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in 40 CFR §70.6(f) and Section 4-57(f) of this ordinance shall not apply to any change made pursuant to this paragraph 4-58(i)(1).

(2) If the applicant in possession of a certificate of alternate control (issued pursuant to section 4-13 of the Chattanooga Air Pollution Control Ordinance) for an operating permit requests them, the permitting authority shall include terms and conditions for the trading of emissions increases and decreases in the permitted source, to the extent that the applicable requirements in the certificate of alternate control provide for trading such increases and decreases without a case-by-case approval of each emissions trade.

(i) Such terms and conditions:

(A) Shall include all terms required under this ordinance and the Chattanooga Air Pollution Control Ordinance to determine compliance; and

(B) Must meet all applicable requirements in the Chattanooga Air Pollution Control Ordinance that are not altered by the certificate of alternate control.

(ii) Under this paragraph (i)(2)(ii), a 7-day advance written notification is required and shall include the following information: when the proposed change will occur, a description of each such change, any change in emissions, the permit

requirements with which the source will comply using the emissions trading provisions of the applicable implementation plan, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the applicable certificate of alternate control and that provide for the emissions trade.

(iii) The permit shield described in 40 CFR §70.6(f) and in Section 4-57(f) of this ordinance shall not extend to any change made under this paragraph (i)(2). Compliance with the permit requirements that the source will meet using the emissions trade shall be determined only to the extent that requirements of an applicable certificate of alternate control authorize the emissions trade.

(3) The permitting authority shall, if a permit applicant requests it, issue permits that contain terms and conditions, including all terms required under Section 4-57(a) and (c) of this ordinance to determine compliance, allowing for 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. The permit applicant shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The permitting authority shall not be required to include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.

(i) Under this paragraph (i)(3), the written notification required above shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

(ii) The permit shield described in 40 CFR §70.6(f) and Section 4-57(f) of this ordinance may extend to terms and conditions that allow such increases and decreases in emissions.

(j) *Off permit changes.* The source may make changes that are not addressed or prohibited by the permit, other than those described in paragraph (k) of this section, to be made without a permit revision, only after the source meets the requirements of (1) through (3) of this paragraph.

(1) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(2) Sources must provide contemporaneous written notice to the permitting authority and EPA of each such change, except for changes that qualify as insignificant under the provisions adopted pursuant to 40 CFR §70.5(c) or Sections 4-56(c)(11) and (c)(12) of this ordinance. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

(3) The change shall not qualify for the shield under 40 CFR §70.6(f) or Section 4-57(f) of this ordinance.

(4) The permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

(k) No source shall make, without a permit revision, changes that are not addressed or prohibited by the part 70 permit, if such changes are subject to any requirements under Title IV of the Act or are modifications under any provision of Title I of the Act.

(l) *Sharing of information*. Any information obtained or used in the administration of this part 70 program shall be available to EPA upon request without restriction and in a form specified by the Administrator, including computer-readable files to the extent practicable. If the information has been submitted to the permitting authority under a claim of confidentiality, the permitting authority may require the source to submit this information to the Administrator directly. Where the permitting authority submits information to the Administrator under a claim of confidentiality, the permitting authority shall submit that claim to EPA when providing information to EPA under this section. Any information obtained from a permitting authority or part 70 source accompanied by a claim of confidentiality will be treated in accordance with the applicable regulations.
(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10786, § 61, 10-27-98)

Sec. 4-59. Permit review by EPA and affected States.

(a) *Transmission of information to the Administrator.*

(1) The permitting authority shall provide to the Administrator a copy of each permit application (including any application for permit modification), each proposed permit, and each final part 70 permit. The applicant may be required by the permitting authority to provide a copy of the permit application (including the compliance plan) directly to the Administrator. Upon agreement with the Administrator, the permitting authority may submit to the Administrator a permit application summary form and any relevant portion of the permit application and compliance plan, in place of the complete permit application and compliance plan. To the extent practicable, the preceding information shall be provided in computer-readable format compatible with EPA's national database management system.

(2) If the Administrator waives the requirements of paragraphs (a)(1) and (b)(1) of this section for any category of sources (including any class, type, or size within such category) other than major sources those requirements need not be complied with.

(3) The permitting authority shall keep for 5 years such records and submit to the Administrator such information as the Administrator may reasonably require to ascertain whether the local program complies with the requirements of the Act or of 40 CFR Part 70.

(b) *Review by affected States.*

(1) The permitting authority shall give notice of each draft permit to any affected State on or before the time that the permitting authority provides this notice to the public under 40 CFR §70.7(h), except to the extent 40 CFR §70.7(e)(2) or (3) requires the timing of the notice to be different.

(2) The permitting authority, as part of the submittal of the proposed permit to the Administrator [or as soon as possible after the submittal for minor permit modification procedures allowed under 40 CFR §70.7(e)(2) or (3)], shall notify the Administrator and any affected State in writing of any refusal by the permitting authority to accept all recommendations for the proposed permit that the affected State submitted during the public or affected State review period. The notice shall include the permitting authority's reasons for not accepting any such recommendation.

(c) *EPA objection.*

(1) If the Administrator, pursuant to Title 40 CFR 70.8(c), objects to the issuance of an operating permit for which an application must be transmitted to the U.S. EPA Administrator pursuant to Title 40 CFR 70.8(a), in writing within 45 days after receipt of the proposed operating permit and all necessary supporting information, then the director shall not issue the operating permit and shall review the objection, including the statement of the Administrator's reasons for objection and description of the terms and conditions that the operating permit must include to respond to the objection.

(i) If the director, upon such review, agrees with the Administrator and finds that the cause for the objection requires permit revision, then the director shall revise the proposed permit to include those terms and conditions that the Administrator describes as necessary to respond to the objection.

(ii) If, however, upon such review the director does not agree with the Administrator and finds that no cause exists to include the terms and conditions suggested by the Administrator in the permit, the director shall forthwith take the following action:

(A) Offer the permittee the opportunity to voluntarily incorporate into the permit or delete from the permit the terms and conditions necessary to accommodate the concerns and resolve the objection of the Administrator. If the permittee agrees to the terms and conditions described by the Administrator, then the permit shall be issued so as to be acceptable to the Administrator, all of which shall be accomplished in a timely manner under schedules agreeable to the Administrator.

(B) If the permittee declines to voluntarily agree to adopt and incorporate into the permit the requirements necessary to accommodate the concerns of the Administrator and to resolve all objections of the Administrator pursuant to Title 40 CFR 70.8(c), then the director shall notify the permittee that the permit as issued has no federal force and effect; that it is merely a local government permit; that the permit does not qualify as a federal operating permit under Title V of the Clean Air Act Amendments of 1990 or Title 40 CFR Part 70; and that the permit, as a non-federal permit may not afford a shield to the permittee against federal civil or criminal enforcement action.

(2) Failure of the permitting authority to do any of the following also shall constitute grounds for an objection by the Administrator:

(i) Comply with paragraphs (a) or (b) of this section;

(ii) Submit to the Administrator any information necessary to review adequately the proposed permit; or

(iii) Process the permit under the procedures approved to meet Section 4-58(h) of this ordinance except for administrative permit modifications, operating changes that do not require permit revision, or minor permit modifications.

(3) Under 40 CFR 70.8 (c)(4) the Administrator has retained overriding authority to issue or deny permits in accordance with the requirements of the Federal program promulgated Title V of the Act.

(4) If the permitting authority fails, within 90 days after the date of an objection under paragraph (c)(1) of this section, to revise and submit a proposed permit in response to the objection, the Administrator has the authority to issue or deny the permit in accordance with the requirements of the Federal program promulgated under Title V of the Act.

(d) *EPA objection after permit issuance.* If the permitting authority has issued a permit prior to receipt of an EPA objection under this paragraph, the Administrator retains authority to modify, terminate, or revoke such permit, and may do so consistent with the procedures in 40 CFR §70.7. If the director agrees that the Administrator's objection is well taken, the director will issue a revised permit that satisfies EPA's objection. If the director does not agree that the Administrator's objection is well taken, then the director shall follow the procedures hereinabove set forth at (c)(1) through (c)(3). In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

(e) *Public petitions to the Administrator.* If the Administrator does not object in writing under paragraph (c) or (d) of this section, any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided for in Section 4-58(h) of this ordinance, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under this paragraph, the permitting authority shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit

or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the director agrees that the Administrator's objection is well taken, the director will issue a revised permit that satisfies EPA's objection. If the director does not agree that the Administrator's objection is well taken, then the director shall follow the procedures hereinabove set forth at (c)(1) through (c)(3).

(f) *Prohibition on default issuance.* Consistent with 40 CFR §70.4(b)(3)(ix), for the purposes of Federal law and Title V of the Act, a part 70 permit (including a permit renewal or modification) will not issue until affected States and EPA have had an opportunity to review the proposed permit as required under this section.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-60. Fee determination and certification.

(a) *Fee Requirement.* The owners or operators of part 70 sources shall pay annual fees, or the equivalent over some other period, that are sufficient to cover the part 70 permit program costs and any fee required by this section will be used solely for part 70 permit program costs.

(b) *Fee schedule adequacy.*

(1) Overriding federal law requires that there be a fee schedule that results in the collection and retention of revenues sufficient to cover the part 70 permit program costs. These costs are required to include, but are not limited to, the costs of the following activities as they relate to the part 70 operating permit program for stationary sources:

(i) Preparing generally applicable regulations or guidance regarding the part 70 permit program or its implementation or enforcement;

(ii) Reviewing and acting on any application for a part 70 permit, permit revision, or permit renewal, including the development of an applicable requirement as part of the processing of a part 70 permit, or permit revision or renewal;

(iii) General administrative costs of running the part 70 permit program, including the supporting and tracking of permit applications, compliance certification, and related data entry;

(iv) Implementing and enforcing the terms of any part 70 permit (not including any court costs or other costs associated with an enforcement action), including adequate resources to determine which sources are subject to the program;

(v) Emissions and ambient monitoring;

(vi) Modeling, analyses, or demonstrations;

(vii) Preparing inventories and tracking emissions; and

(viii) Providing direct and indirect support to sources under the Small Business Stationary Source Technical and Environmental Compliance Assistance Program contained in section 507 of the Act [42 U.S.C. §7661(f)] in determining and meeting their obligations under the Act.

(2) (i) The fee schedule may be presumed to meet the requirements of paragraph (b)(1) of this section if it would result in the collection and retention of an amount not less than $25 per year (as adjusted pursuant to the criteria set forth in paragraph (b)(2)(iv) of this section) times the total tons of the actual emissions of each regulated pollutant (for presumptive fee calculation) emitted from part 70 sources.

(ii) There may be excluded from such calculation:

(A) The actual emissions of sources for which no fee is required under paragraph (b)(4) of this section;

(B) The amount of a part 70 source's actual emissions of each regulated pollutant (for presumptive fee calculation) that the source emits in excess of four thousand (4,000) tpy;

(C) A part 70 source's actual emissions of any regulated pollutant (for presumptive fee calculation), the emissions of which are already included in the minimum fees calculation; or

(D) The insignificant quantities of actual emissions not required in a permit application pursuant to Section 4-56(c) of this ordinance relative to approved insignificant activities.

(iii) "Actual emissions" means the actual rate of emissions in tons per year of any regulated pollutant (for presumptive fee calculation) emitted from a part 70 source over the preceding calendar year or any other period determined by the

permitting authority to be representative of normal source operation and consistent with the fee schedule approved pursuant to this section. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and in-place control equipment, types of materials processed, stored, or combusted during the preceding calendar year or such other time period established by the permitting authority pursuant to the preceding sentence.

(iv) The $25 per ton per year used to calculate the presumptive minimum amount to be collected under a fee schedule, as described in paragraph (b)(2)(i) of this section, shall be increased each year by the percentage, if any, by which the Consumer Price Index for the most recent calendar year ending before the beginning of such year exceeds the Consumer Price Index for the calendar year 1989. Such calculation shall be made in accordance with the provisions of Section 4-60(e)(4) of this ordinance.

(A) The Consumer Price Index for any calendar year is 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 calendar year.

(B) The revision of the Consumer Price Index which is most consistent with the Consumer Price Index for the calendar year 1989 shall be used.

(3) The fee schedule herein established may include emissions fees, application fees, service-based fees or other types of fees, or any combination thereof, to meet the requirements of paragraph (b)(1) or (b)(2) of this section. Nothing in the provisions of this section shall require the permitting authority to calculate fees on any particular basis or in the same manner for all part 70 sources, all classes or categories of part 70 sources, or all regulated air pollutants, provided that the permitting authority collects a total amount of fees sufficient to meet the program support requirements of paragraph (b)(1) of this section. Where there is more than one allowable method of calculating the annual fee, the owner (or operator) may select the method.

(4) Notwithstanding any other provision of this section, during the years 1995 through 1999 inclusive, no fee for purposes of the part 70 program shall be required to be paid with respect to emissions from any affected unit under section 404 of the Act.

(5) The permitting authority shall provide a detailed accounting that the fee schedule meets the requirements of paragraph (b)(1) of this section if:

(i) The fee schedule that would result in the collection and retention of an amount less than that presumed to be adequate under paragraph (b)(2) of this section; or

(ii) The Administrator determines, based on comments rebutting the presumption in paragraph (b)(2) of this section or on his/her own initiative, that there are serious questions regarding whether the fee schedule is sufficient to cover the permit program costs.

(c) *Fee demonstration.* The permitting authority shall provide a demonstration that the fee schedule selected will result in the collection and retention of fees in an amount sufficient to meet the requirements of this section.

(d) *Use of required fee revenue.* The demonstration shall contain an initial accounting (and periodic updates as required) of how required fee revenues are used solely to cover the costs of meeting the various functions of the part 70 permitting program.

(e) The initial fee schedule is as follows:

(1) The owner or operator or the "responsible official" of a part 70 source shall pay an annual emission fee to the bureau based on "regulated pollutant (for presumptive fee calculation)" as those terms are defined in Section 4-53 of this ordinance. The minimum annual emission fee charged to a Part 70 source will be no less than $100.00.

(2) The annual emission fee for any part 70 source shall be based on its allowable emissions until the end of the first annual accounting period following issuance of its initial part 70 operating permit. No later than 12 months after issuance of its initial part 70 operating permit, the owner or operator or responsible official of the part 70 source shall notify the director in writing of its choice to base its annual emissions fee for the remainder of its initial operating permit term, as elected by the source, on either its allowable emissions or its actual emissions.

(3) The annual emissions fees described in Section 4-60(e)(6) of this ordinance shall apply after the enactment date of this ordinance and approval by the Administrator. A source subject to this ordinance shall be required to pay the required fee prior to issuance of its part 70 operating permit. Said fees shall be collected by the bureau and remitted to

the treasurer of the City of Chattanooga as the fiscal agent of the board. (See 40 CFR 70.9(b)(2)(iii) and (iv))

(4) If the owner or operator or responsible official chooses actual emissions as its fee basis, the magnitude of the source's emissions must be proven to the satisfaction of the Director. The procedure for quantifying actual emission rates shall be specified in the operating permit. The costs of proving the actual emission rates on an annualized basis shall be borne by the part 70 source. The required payment shall be based upon the actual emissions documentation submitted by the source and subject to correction by the Bureau after inspection of the source.

(i) Once the choice of a fee basis has been declared, it may be altered by written request to the director only during the following periods of eligibility: (1) at least 180 days prior to expiration of the initial part 70 operating permit or (2) at least 180 days prior to renewal of an expiring part 70 operating permit.

(5) The due date for part 70 source annual emission fees is November 1st of each calendar year beginning November 1, 1995. Part 70 sources with annual emission fees in excess of $50,000 may elect to make four (4) equal payments according to the following schedule:

1st Payment	November 1st
2nd Payment	February 1st
3rd Payment	May 1st
4th Payment	August 1st

(6) The rate at which annual emission fees are assessed shall be $31.33 per ton for each annual accounting period.

(7) An emission cap of 4,000 tons per year per "regulated pollutant (for presumptive fee calculation)" for a part 70 source per part 70 source SIC code shall apply to actual or allowable-based emission fees. An emission fee will not be charged for emissions in excess of the cap(s) or for carbon monoxide.

(8) In the case where a part 70 source is shutdown such that it has operated only during a portion of the annual accounting period and permits are forfeited to the director, the appropriate fee shall be calculated on a prorated basis over the period of time that the permits were active in the annual accounting period. A part 70 source that is shutdown, but wishes to retain its operating permit, shall pay a maintenance fee

equivalent to 40% of the fee that would be charged had it chosen the allowable emission based annual emission fee. If the source chooses this option in the midst of an annual accounting period, the fee will be prorated according to the number of months that the source was in the maintenance fee status.

(9) Part 70 sources choosing an allowable based annual emission fee must conform to the following requirements:

(i) If the part 70 source wishes to restructure its allowable emissions for the purposes of lowering its annual emission fees, a mutually agreed upon, more restrictive regulatory requirement may be established to reduce its allowable emissions and thus its annual emission fee. The more restrictive requirement must be specified in the permit, and must specify the method used to determine compliance with the limitation. The documentation procedure to be followed by the part 70 source must also be included to insure that the limit is not exceeded. Restructuring the allowable emissions is permissible only at the expiration of the initial operating permit or at the renewal of an expiring operating permit, and only if a written request for restructuring is filed with the director at least 120 days prior to the beginning of the annual accounting period for which the change is requested.

(ii) Beginning November 1, 1995, and each November 1st thereafter, any part 70 source paying annual emission fees based on allowable emissions shall file an allowable emissions analysis with the director which summarizes its allowable emissions of all "regulated pollutants (for presumptive fee calculation)" at the part 70 source. Based upon its allowable emissions analysis, the part 70 source shall pay a minimum annual emission fee calculated at sixty percent (60%) of the current annual emission fee rate.

(iii) Beginning November 1, 1997, and each November 1st thereafter, a part 70 source subject to annual emission fees based on actual emissions shall file an actual emissions analysis with the director which (1) specifies the method(s) used to quantify its emissions at each emission point and as fugitive emissions and (2) which summarizes its actual emissions of all regulated pollutants.

(iv) The bureau will compile a report of all actual based and allowable based annual emission fees that it receives for the annual accounting period and reconcile the report to the bureau's operating budget for the corresponding fiscal year. If insufficient revenues were received for the budgeted direct and

indirect costs of the bureau's regulatory activities pertaining to part 70 sources, supplemental fees for the sources choosing to pay a fraction of the annual emission fee rate on an allowable tonnage basis will be required. The supplemental fees for those part 70 sources choosing allowable emissions shall be calculated and presented to the board at its January meeting following the fiscal year under consideration. Upon board approval, supplemental fees shall be assessed against all part 70 sources choosing allowable based annual emission fees. However, no part 70 source shall be charged an annual emission fee based on a dollar per ton rate greater than the current emission fee for actual based emission fees. The supplemental fee assessment will be sent to the part 70 source via certified mail and is due within thirty (30) days after receipt of the assessment. The director may extend this due date an additional ninety (90) days where the director finds that the part 70 source owner or operator's supplemental fee notice was mailed by the bureau to an incorrect mailing address. If a part 70 source owner or operator is aggrieved by a supplemental fee, the bureau will explain the procedures used to calculate the fee. If a dispute continues after the explanation, the matter may be appealed to the board as a contested case hearing provided that the dispute is not based upon:

(A) The quantity of "regulated pollutants (for presumptive fee calculation)" allowable emission tonnages that were reported by the part 70 source in its allowable emissions analysis for the period in dispute and/or;

(B) The supplemental allowable emission annual emission fee rate set by the board pursuant to Section 4-60(b)(10)(iv) of this ordinance for the period in dispute.

Exceedance of a restructured allowable emission limitation shall be viewed by the board as circumvention of the required annual emission fee and a matter for which enforcement action must be pursued.

(10) A newly constructed part 70 source, or an existing source modifying operations such that it becomes a part 70 source in the midst of the standard November 1st through October 31st annual accounting period, shall pay allowable based annual emissions fees for the fractional remainder of the annual accounting period commencing upon start-up. At the beginning of the next annual accounting period, the part 70 source's owner or operator or "responsible official" may choose to pay annual emission fees based on actual or allowable emissions.

(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10297, § 5, 10-3-95; Ord. No. 10786, § 57, 10-27-98; Ord. No. 10924, § 16, 11-2-99)

Sec. 4-61. Judicial Review - Failure to Take Final Action.

Solely for the purposes of obtaining judicial review in State court for failure to take final action, "final permit action" shall include the failure of the permitting authority to take final action on an application for a permit, permit renewal or permit revision within the time specified in this ordinance or such lesser time as may be established by the Board.

If sources are permitted to make changes subject to post hoc review under Section 4-58(e)(1) of this ordinance the failure of the permitting authority to take final action within 90 days of receipt of an application requesting minor permit modification procedures shall be deemed to be final action subject to judicial review. If a source is permitted to make changes subject to post hoc review under Section 4-58(e)(2) of this ordinance the failure of the permitting authority to take final action within 180 days of receipt of an application requesting modifications subject to group processing requirements shall be deemed to be final action subject to judicial review.

Except as provided under the initial transition plan provided for under Section 4-56(e) of this ordinance or under Title IV of the Act, final action shall be taken on each permit within the time prescribed by, or established under, Section 4-58(a)(2) of this ordinance.

The failure of the permitting authority to take final action within the time herein prescribed constitutes an action upon which the source (or other person with "standing") may seek a writ of mandamus (T.C.A. 29-25-101 et seq.) or a writ of certiorari (T.C.A. 27-9-101 et seq.) whichever is applicable. If a writ of mandamus is sought it shall require the permitting authority to issue or deny the permit, and shall not attempt to establish the terms, conditions, requirements or elements of the permit. (Ord. No. 10114, § 2, 9-27-94)

Sec. 4-62. Final action - Administrative and Judicial Review.

Except as provided under the initial transition plan provided for under Section 4-56(e) of this ordinance or under Title IV of the Act final action shall be taken on each permit within the time prescribed by Section 4-58(a)(2) of this ordinance.

The failure of the permitting authority to take action within the time hereinabove prescribed constitutes an action upon which the source (or other person with "standing") may seek a writ of mandamus (T.C.A. 29-25-101 et seq.) or writ of certiorari (T.C.A. 27-9-101 et seq.) whichever is appropriate in the circumstances of the case. If a writ of mandamus is sought it shall require the

permitting authority to either issue or deny the permit, but not attempt to establish the terms or conditions of the permit.

If review of final permit action is sought on grounds of contest arising after the time prescribed by T.C.A. 27-9-101 et. seq., the grounds must be brought initially to the attention of the Board by petition with a request for special hearing setting forth the time constraints. Certiorari under T.C.A. 27-9-101 et. seq. will be from the action of the Board on that petition, provided that the application for certiorari under T.C.A. 27-9-101 et. seq. must in any event be filed prior to the 91st day after the new grounds arose.

If the final permit action being challenged is the failure of the Board to take action, upon a petition for final permit action by the board after failure of the director to take action, the contestant may file for the appropriate writ in State Court at any time following the expiration of the time allowances hereinabove provided and before the Board denies the permit or issues the final permit.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-63. Judicial Review of Terms and Conditions of Permit.

The exclusive means for obtaining judicial review of the terms and conditions of permits shall be by certiorari under T.C.A. 27-9-101 et. seq. but only after all administrative remedies have been exhausted.

In those cases where certiorari is appropriate under T.C.A. 27-9-101 et. seq. the source shall, at such time as the source deems timely, petition the Board to exercise its own authority to override the Director and take appropriate final permit action so as to permit the source to meet the prescribed time constraints in obtaining judicial review. Such petition to the Board shall be filed in sufficient time to allow the Chairperson (or Vice-Chairperson, in the absence of the Chairperson) to call a special meeting of the Board and to allow the Board to hold a hearing, to deliberate and to take appropriate action within the time limits prescribed in this ordinance for final permit action.

Such administrative and judicial review on permit actions shall be available to the applicant, to any person who participated in the hearing process provided pursuant to Section 4-58(h) of this ordinance and to any other person who, under the law of Tennessee, has "standing" to obtain judicial review of such action. The application for such judicial review is required to be prior to the 91st day following final permit action. The person seeking judicial review under this provision must exhaust administrative remedies and is required to appeal to the Board from any action of the director and in a contested case final permit action is the action of the board following a hearing, or opportunity for hearing, by the contestant or contestants. The petition for certiorari for judicial review under T.C.A. § 27-9-101 et. seq. must be for review of action of the Board and not from action of the director. It must

be filed within the time specified in that Statute and in no event more than 90 days after the final permit action by the board.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-64. Hearings and Review.

Except as hereinabove provided all other enforcement proceedings, adjudicatory hearings, administrative review, administrative remedies, appeals to the Board, petitions to the Board and all judicial review of Board actions shall be governed and controlled by the provisions of Section 4-17 and Section 4-18 of the Chattanooga Air Pollution Control Ordinance of Chapter 4 of the Chattanooga City Code.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-65. Enforcement.

(a) Whenever the permitting authority has reason to believe that a violation of any provision of this ordinance has occurred, the board or director may cause written notice to be served upon the alleged violator or violators. The notice shall specify the provision of this ordinance or permit alleged to be violated and the date, time, place and general nature of the alleged violation or violations thereof and may include an order that necessary action be taken within a reasonable time. The notice provided for in this subsection may be served by the sheriff or a deputy sheriff of the county; or by a police officer of this city; or by a special police officer of this city; or by a special deputy sheriff; or may be served in any other manner prescribed for the service of a writ of summons by the statutes of the state or by the Tennessee Rules of Civil Procedure. Any such order shall become final unless, no later than thirty (30) days after the date the notice and order are served, the person or persons named therein request in writing a hearing before the board and file a notice of appeal and a bond pursuant to section 4-18(e) of the Chattanooga Air Pollution Control Ordinance. Upon such request, the board shall hold a hearing. In lieu of an order, the board may require that the alleged violator or violators appear before the board for a hearing at a time and place specified in the notice and answer the charges complained of, or the board may initiate action pursuant to any applicable provisions of this ordinance, or the statutes of the state, or the acts of Congress of the United States, or the board may initiate action pursuant to any provisions or doctrines of the law of this state.

(b) The Board may issue cease and desist orders after a hearing or opportunity for hearing before the Board.

(c) The Board may file suit in the name of the Board in state or federal court for judicial aid in enforcement of any administrative order.

(d) The permitting authority may terminate, modify, or revoke and reissue permits for cause.

(e) *Enforcement.* The permitting authority shall have the enforcement authority established in Section 4-51 of this ordinance and shall have the following enforcement authority to address violations of this ordinance by part 70 sources including those that submit a written request for treatment as a synthetic minor source, (or emissions units thereat or thereon) or violations of permit requirements or conditions:

(1) To restrain or enjoin immediately and effectively any person by administrative order or by suit in court from engaging in any activity in violation of a permit that is presenting an imminent and substantial endangerment to the public health or welfare, or the environment;

(2) To seek injunctive relief in court to enjoin any violation of any program requirement, including permit conditions, without the necessity of a prior revocation of the permit; and

(3) To assess civil penalties and sue in court to recover same and to seek criminal remedies, including fines, according to the following:

(i) Civil penalties shall be recoverable for the violation of any applicable requirement as that term is defined in this ordinance; any permit term or condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities, or any regulation or orders issued by the permitting authority; operation of a part 70 source or of an emissions unit at a part 70 source without a part 70 permit at any time that the part 70 source is required to have an issued part 70 permit, except as otherwise provided in this ordinance; and operation of a source that submits a written request for treatment as a synthetic minor source that is denied such treatment that operates without a part 70 permit at any time that the source or an emissions unit at the source is required to have an issued part 70 permit, except as otherwise provided in this ordinance. Each day of operation without an issued part 70 permit as described in this paragraph constitutes a separate violation. These penalties shall be recoverable in a maximum amount of not less than $10,000 per day per violation. Mental state shall not be an element of proof for civil violations.

(ii) To bring civil actions to collect permit fees when necessary and to bring action to require compliance with the permit requirements of this ordinance.

(iii) Criminal fines shall be recoverable against any person who knowingly violates any applicable requirement; any permit condition; or any fee or filing requirement. These fines shall be recoverable in a maximum amount of not less than $10,000 per day per violation.

(iv) Criminal fines shall be recoverable against any person who knowingly makes any false material statement, representation or certification in any form, in any notice or report required by a permit, or who knowingly renders inaccurate any required monitoring device or method. These fines shall be recoverable in a maximum amount of not less than $10,000 per day per violation.

(v) For the prosecution of criminal action under (e)(3)(iii) or (e)(3)(iv) above the permitting authority shall follow and comply with the provisions of T.C.A. 68-201-112 and shall notify the District Attorney General of the violation.

(f) *Burden of proof.* The burden of proof and degree of knowledge or intent required under State law for establishing violations under paragraph (e)(3) of this section shall be no greater than the burden of proof or degree of knowledge or intent required under the Act.

(g) *Appropriateness of penalties and fines.* A civil penalty or criminal fine assessed, sought, or agreed upon by the permitting authority under paragraph (e)(3) of this section shall be appropriate to the violation. Where an affirmative defense of emergency is not established, the Board may consider emergency circumstances in mitigation or reduction in assessing a penalty, and shall consider those factors enumerated in §113(e)(1)[42 U.S.C. 7413(e)(1)] of the Act and those factors enumerated in T.C.A. 68-201-106, as well as those factors set forth at §4-4(e) of the Chattanooga Air Pollution Control Ordinance.
(Ord. No. 10114, § 2, 9-27-94; Ord. No. 10297, § 6, 10-3-95)

Sec. 4-66. Severability.

If any section, part of a section, sentence, clause or phrase of this Ordinance is for any reason declared to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such decision shall not affect the validity of any other portion of this ordinance, and only such invalid portion shall be elided from this ordinance.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-67. Titles.

The titles appearing as headings within this ordinance are for convenience only and shall not be deemed to be an aid to the construction of this ordinance.
(Ord. No. 10114, § 2, 9-27-94)

Sec. 4-68. Incorporation of documents by reference.

The following documents are hereby incorporated by reference in accordance with T.C.A. § 68-201-115 in Chapter 4 as requirements of this municipality:

(a) Title 40 Code of Federal Regulations Part 50, Appendices A through K--Reference Methods for the Determination of National Primary and Secondary Ambient Air Quality Standards (Revised as of July 1, 1996); and

(b) Title 40 Code of Federal Regulations Part 51, Appendix M--Recommended Test Methods for State Implementation Plans, Appendix P--Minimum Emission Monitoring Requirements, and Appendix W--Guideline on Air Quality Models including Appendix A to Appendix W, Appendix B to Appendix W (Revised as of July 1, 1996) and Appendix C to Appendix W at 61 FR 41840-41894, August 12, 1996; and

(c) Title 40 Code of Federal Regulations Part 58, Appendix B--quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Monitoring (Revised as of July 1, 1996); and

(d) Title 40 Code of Federal Regulations Part 64—Compliance Assurance Monitoring federally effective November 21, 1997, published at 62 FR 54940-54947 on October 22, 1997; and

(e) Title 40 Code of Federal Regulations Part 68--Chemical Accident Prevention Provisions (Revised as of July 1, 1996); and Amendments to Part 68, Subparts A and F, at 63 FR 644-645, January 6, 1998; and

(f) Title 40 Code of Federal Regulations Part 75-Continuous Emission Monitoring, including all appendices (Revised as of July 1, 1996); and

(g) Title 40 Code of Federal Regulations Part 258--Criteria For Municipal Solid Waste Landfills, Subpart D--Design Criteria §258.40 and Subpart F--Closure and Post-Closure Care §258.60 (Revised as of July 1, 1996); and

(h) Title 40 Code of Federal Regulations § 257.2 Definitions (Revised as of July 1, 1996); and

(i) ASTM Designation D 3266-91, Standard Test Method for Automated Separation and Collection of Particulate and Acidic Gaseous Fluoride in the Atmosphere (Double Paper Tape Sampler Method), 1994 Annual Book of ASTM Standards Volume 11.03; and

(j) American Society for Testing and Materials, D-323-94, Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method), 1994 Annual Book of ASTM Standards Volume 5.01; and

(k) American Petroleum Institute Bulletin 2517 "Evaporation Loss from External Floating-Roof Tanks" Third Edition with addendum May 1994; and

(l) Tennessee Visible Emission Evaluation Method 1 for visible emissions resulting from roads and parking areas, Visible Emissions Evaluation Instruction Manual, August 1988 Revised 1995, issued by the Tennessee Department of Health and Environment Division of Air Pollution Control.

(m) National Association of Corrosion Engineers (NACE) Standard RP0294-94 "Recommended Practice Design, Fabrication, and Inspection of Tanks for Storage of Concentrated Sulfuric Acid and Oleum at Ambient Temperatures.

(Ord. No. 10269, § 4, 7-25-95; Ord. No. 10785, §§ 5-6, 10-27-98; Ord. No. 10967, § 1, 2-8-00)