

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.

(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.

(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.

(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 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.

(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.

(f) If a stationary source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation on the capacity of the stationary source or modification to emit a pollutant, such as 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.

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.

(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.

(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 40-41, 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.

(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 PM10 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).

- (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 of 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 emission 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<sub>10</sub> 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<sub>10</sub> emissions.

(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.

(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 results 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.

(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 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.

(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.

(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 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 of 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 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 air 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 300,00 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 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 <sub>10</sub> :	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 <sub>2</sub> S):	10	tpy
Total reduced sulfur, iIncluding H <sub>2</sub> S:	10	tpy
Reduced sulfur compounds, including H <sub>2</sub> S:	10	tpy

Municipal waste combustor  
 Organics (measured as  
 total tetra-through  
 octa-chlorinated  
 dibenzo-p-dioxins and  
 dibenzofurans): 3.5x10<sup>-6</sup> 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

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 generating 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 Subpart I or Section 51.166, which have been incorporated by reference in

- Chapter 4; or
2. The source is approved to use under an 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 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.

- (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<sub>10</sub> emissions can be used to evaluate the net emission increase for PM<sub>10</sub>.
- d. An increase in actual emissions is creditable only to the extent that the new level of actual emission 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 emission 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).

(w) *Necessary preconstruction approvals or permits* means those permits or approvals required under 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.

(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.

(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 purpose 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 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) or a Class I area and have an impact on such area equal to or greater than one microgram per cubic meter (24-hour average).

(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) *Volatile organic compounds (VOC)* means 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); 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113); trichlorofluoromethane (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-134a); 1,1-difluoroethane (HFC-152a); parachlorobenzotrifluoride (PCBTF); cyclic, branched, or linear completely methylated siloxanes; 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 may 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.

(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 and values and on personal comfort and well-being, whether those effects are caused directly or by transformation, conversion, or combination with other air pollutants.

(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 a 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 conducting 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 emission the director shall:

- (1) consider all relevant information including, but not limited to, historical operational data, the company's own representatives, filings with the State of 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 its 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 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 emission 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<sub>x</sub> 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.

(mm) *Control Strategy* means a combination of measures, approved by the Board, designed to achieve the aggregate reduction of emission 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 discentives;
- (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 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 probably 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 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 ug/m <sup>3</sup> , 8-hour average;
Nitrogen dioxide	14 ug/m <sup>3</sup> , annual average;
Particulate matter	
PM <sub>10</sub>	10 ug/m <sup>3</sup> , 24-hour average;
Sulfur dioxide	13 ug/m <sup>3</sup> , 24-hour average;
Ozone	No de minimus 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 ug/m <sup>3</sup> , 3-month average;
Mercury	0.25 ug/m <sup>3</sup> , 24-hour average;
Beryllium	0.001 ug/m <sup>3</sup> , 24-hour average;
Fluorides	0.25 ug/m <sup>3</sup> , 24-hour average;
Vinyl chloride	15 ug/m <sup>3</sup> , 24-hour average;

Total reduced sulfur 10 ug/m<sup>3</sup>, 1-hour average;  
Hydrogen sulfide 0.2 ug/m<sup>3</sup>, 1-hour average;  
Reduced sulfur compounds 10 ug/m<sup>3</sup>, 1-hour.  
average; or:

- (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.

(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, Rule 15 and 16.

(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).

(d) A major modification shall apply BACT for each pollutant subject to regulation under this chapter for which it would be a significant net emission increase at the source as described in Rule 18.2(u) and the 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.

(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.

(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 existence before December 31, 1979, as exceeds good engineering practice, or
- (2) Any other dispersion technique not implemented before December 31, 1970.

(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<sub>10</sub> 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<sub>10</sub> 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 TPS as in effect on the date the application was submitted.
  - (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).
- (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.

- (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.
- (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.

(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.

(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.

(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.

(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 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.

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

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:

<u>Area</u>	<u>Pollutant</u>	<u>Maximum allowable increase (<math>\mu\text{g}/\text{m}^3</math>)</u>
Class I:	Particulate Matter:	
	PM <sub>10</sub> , annual arithmetic mean	4
	PM <sub>10</sub> , 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 <sub>10</sub> , annual arithmetic mean	17
	PM <sub>10</sub> , 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<sub>10</sub>, annual arithmetic mean 34  
PM<sub>10</sub>, 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.

(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 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 of 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.

(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 and order as in Rule 18.6©(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 dioxides 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 a national 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.

(d) Class I Variances. The owner or operator of a proposed source or modification may demonstrate to the Federal Land manager that 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:

<u>Pollutant</u>	<u>Maximum allowable increase</u> <u>(<math>\mu\text{g}/\text{m}^3</math>)</u>
Particulate Matter:	
PM <sub>10</sub> , annual arithmetic mean	17
PM <sub>10</sub> , 24-hour maximum	30

Sulfur Dioxide:		
Annual arithmetic mean		20
24-hour maximum		91
3-hour maximum		325
Nitrogen Dioxide:		
Annual arithmetic mean		25

(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.
- (4) 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.

(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:

<u>Period of Exposure</u>	<u>Maximum allowable increase (<math>\mu\text{g}/\text{m}^3</math>)</u>	
	<u>Terrain Areas</u> <u>Low</u>	<u>High</u>
24-hour maximum	36	62
3-hour maximum	130	221

(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 in the information submitted. In the event of such a deficiency, the date of receipt of the

application shall be, for the purpose of this section, 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 and 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 from the date of issuance of the installation permit.

#### 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 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 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 emission 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.

THIS IS THE FEDERALLY APPROVED REGULATION AS OF AUGUST 12, 1997

	DATE SUBMITTED to EPA	DATE APPROVED by EPA	FEDERAL REGISTER
Original Reg	JUL 20, 1989	MAY 8, 1990	55FR19066
1 <sup>st</sup> update	DEC 11, 1995	AUG 12, 1997	62FR43109

Printed January 13, 2006