

REGULATION 2.05 Prevention of Significant Deterioration of Air Quality

Air Pollution Control District of Jefferson County Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

PursuantTo: KRS Chapter 77 Air Pollution Control

Necessity and Function: KRS 77.180 provides that the Air Pollution Control Board may make and enforce all needful orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation provides for the prevention of significant deterioration of air quality where the national ambient air quality standards have been achieved.

SECTION 1 Applicability

- 1.1 This regulation applies to any major stationary source or any major modification which:
 - 1.1.1 Commenced construction after June 19, 1978,
 - 1.1.2 Emits any pollutant regulated by the Act, and
 - 1.1.3 Is constructed in Jefferson County and emits any pollutant for which Jefferson County is designated attainment or unclassified as defined pursuant to the Act Section 107(d)(1)(D) or (E). (Area designations are contained in 40 CFR 81.318.)

SECTION 2 Definitions

Terms used in this regulation not defined herein shall have the meaning given them in Regulation 1.02.

- 2.1 "Actual emissions" means the actual rate of emissions of a pollutant from an emissions unit, as determined in accordance with sections 2.1.1 to 2.1.3.
 - 2.1.1 In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of normal source operation. The District shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
 - 2.1.2 The District may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
 - 2.1.3 For any emissions unit which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- 2.2 "Adverse impact on visibility" means visibility impairment which interferes with the management, protection, preservation or enjoyment of the visitor's visual experience of the Class I area. This determination shall be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of visibility impairment, and how these factors correlate with the times of visitor use of the Class I area, and the frequency and timing of natural conditions that reduce visibility.
- 2.3 "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 local, state, and federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:

- 2.3.1 The applicable standards as set forth in Regulations 5 and 7, or 40 CFR Parts 60 and 61,
- 2.3.2 The applicable local, state and federally approved regulatory emissions limitation, including those with a future compliance date, or
- 2.3.3 The emissions rate specified as a local, state, and federally enforceable permit condition, including those with a future compliance date.
- 2.4 "Baseline area" means any intrastate area (and every part thereof) designated as attainment or unclassifiable under the Act Section 107(d)(1)(D) or (E) 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 1 ug/m³ (annual average) of the pollutant for which the minor source baseline date is established.
 - 2.4.1 Area re-designations under the Act Section 107(d)(1)(D) or (E) cannot intersect or be smaller than the area of impact of any major stationary source or major modification which:
 - 2.4.2 Establishes a minor source baseline date, or
 - 2.4.3 Is subject to 40 Section CFR 52.21 or this regulation, and would be constructed in Jefferson County, Kentucky.
- 2.5 "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 baseline date is established and shall include:
 - 2.5.1 The actual emissions representative of sources in existence on the applicable minor source baseline date, except as provided in section 2.5.3.
 - 2.5.2 The allowable emissions of major stationary sources which commenced construction before the major source baseline date but were not in operation by the applicable minor source baseline date.
 - 2.5.3 The following will not be included in the baseline concentration and will affect the applicable maximum allowable increases:
 - 2.5.4 Actual emissions from any major stationary source on which construction commenced after the major source baseline date, and
 - 2.5.5 Actual emissions increases and decreases at any stationary source occurring after the minor source baseline date.
- 2.6 "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 underground pipework and construction of permanent storage structures. With respect to a change in method of operations, this term refers to those on-site activities other than the preparatory activities which mark the initiation of the change.
- 2.7 "Best Available Control Technology" (BACT) means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the District, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of BACT result in emissions of any pollutant which would exceed the emissions allowed by an applicable standard under Regulations 5 and 7 or 40 CFR Parts 60 and 61. If

the District determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.

- 2.8 "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 (1977).
- 2.9 "Commence" as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary pre-construction approvals or permits and either has:
 - 2.9.1 Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time, or
 - 2.9.2 Entered into 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.
- 2.10 "Complete" means, in reference to an application for a permit, that the application contains all of the information necessary for processing the application.
- 2.11 "Construction" means 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.
- 2.12 "Emission unit" means any part of a stationary source which emits or would have the potential to emit any pollutant subject to regulation under the Act.
- 2.13 "Federal Land Manager" means, with respect to any lands in the United States, the secretary of the department with authority over such lands.
- 2.14 "Federally enforceable" means all limitations and conditions which are enforceable by EPA, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within any applicable SIP, and any permit requirements established pursuant to 40 CFR Section 52.21 or under regulations approved pursuant to 40 CFR Part 51 Subpart I.
- 2.15 "Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- 2.16 "High terrain" means any area having an elevation 900 feet or more above the base of the stack of a source.
- 2.17 "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.
- 2.18 "Low terrain" means any area other than high terrain.

- 2.19 "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 of any pollutant subject to regulation under the Act.
- 2.19.1 Any net emissions increase that is significant for volatile organic compounds shall be significant for ozone.
- 2.19.2 A physical change or change in the method of operation shall not include:
- 2.19.2.1 Routine maintenance, repair and replacement,
- 2.19.2.2 Use of alternative fuel or raw material by reason of an order or by reason of a natural gas curtailment plan in effect under a federal act,
- 2.19.2.3 Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste,
- 2.19.2.4 Use of an alternative fuel or raw material by a stationary source which:
- 2.19.2.4.1 The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any permit condition which was established after January 6, 1975, or
- 2.19.2.4.2 The source is approved to use under any permit issued under this regulation or under 40 CFR Section 52.21,
- 2.19.2.5 An increase in the hours of operation or in the production rate, unless such change would be prohibited after January 6, 1975 pursuant to 40 CFR Section 52.21, or any permit condition which was established by the District.
- 2.19.2.6 Any change in ownership at a stationary source.
- 2.20 "Major source baseline date" means:
- 2.20.1 In the case of particulate matter and sulfur dioxide, January 6, 1975, and
- 2.20.2 In the case of nitrogen dioxide, February 8, 1988.
- 2.21 "Major stationary source" means:
- 2.21.1 Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any pollutant subject to regulation under the Act: fossil fuel-fired steam electric plants of more than 250 million BTU per hour heat input; coal cleaning plants (with thermal dryers); kraft pulp mills; portland cement plants; primary zinc smelters; iron and steel mill plants; primary aluminum ore reduction plants; primary copper smelters; municipal incinerators capable of charging more than 250 tons of refuse per day; hydrofluoric, sulfuric, and nitric acid plants; petroleum refineries; lime plants; phosphate rock processing plants; coke oven batteries; sulfur recovery plants; carbon black plants (furnace process); primary lead smelters; fuel conversion plants; sintering plants; secondary metal production plants; chemical process plants; fossil fuel boilers (or combination thereof) totaling more than 250 million BTU per hour heat input; petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels; taconite ore processing plants; glass fiber processing plants; and charcoal production plants,
- 2.21.2 Notwithstanding the stationary source size specified in section 2.21.1, any stationary source which emits, or has the potential to emit, 250 tons per year or more of any air pollutant subject to regulation under the Act, or
- 2.21.3 Any physical change that would occur at a stationary source not otherwise qualifying under this regulation as a major source, if the change itself would constitute a major stationary source.

- 2.21.4 A major stationary source that is major for volatile organic compounds shall be considered major for ozone.
- 2.21.5 The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this regulation whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources:
- 2.21.5.1 Coal cleaning plants (with thermal dryers),
 - 2.21.5.2 Kraft pulp mills,
 - 2.21.5.3 Portland cement plants,
 - 2.21.5.4 Primary zinc smelters,
 - 2.21.5.5 Iron and steel mills,
 - 2.21.5.6 Primary aluminum ore reduction plants,
 - 2.21.5.7 Primary copper smelters,
 - 2.21.5.8 Municipal incinerators capable of charging more than 250 tons of refuse per day,
 - 2.21.5.9 Hydrofluoric, sulfuric, or nitric acid plants,
 - 2.21.5.10 Petroleum refineries,
 - 2.21.5.11 Lime plants,
 - 2.21.5.12 Phosphate rock processing plants,
 - 2.21.5.13 Coke oven batteries,
 - 2.21.5.14 Sulfur recovery plants,
 - 2.21.5.15 Carbon black plants (furnace process),
 - 2.21.5.16 Primary lead smelters,
 - 2.21.5.17 Fuel conversion plants,
 - 2.21.5.18 Sintering plants,
 - 2.21.5.19 Secondary metal production plants,
 - 2.21.5.20 Chemical process plants,
 - 2.21.5.21 Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input,
 - 2.21.5.22 Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,
 - 2.21.5.23 Taconite ore processing plants,
 - 2.21.5.24 Glass fiber processing plants,
 - 2.21.5.25 Charcoal production plants,
 - 2.21.5.26 Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input.
 - 2.21.5.27 Any other stationary source category which, as of August 7, 1980, is being regulated under the Act Section 111 or 112.
- 2.22 "Mandatory Class I Federal area" means any area identified in 40 CFR Part 81 Subpart D where EPA, in consultation with the Department of Interior, has determined visibility to be an important value.
- 2.23 "Minor source baseline date" means the earliest date after the trigger date on which a major stationary source or a major modification subject to 40 CFR Section 52.21, 40 CFR Section 51.166 or Regulation 2.05 submits a complete application under the relevant regulations. The trigger date is:
- 2.23.1 In the case of particulate matter and sulfur dioxide, August 7, 1977, and
 - 2.23.2 In the case of nitrogen dioxide, February 8, 1988.

- 2.23.3 The baseline date is established for each pollutant for which increments or other equivalent measures have been established if:
- 2.23.3.1 The area in which the proposed source or modification would construct is designated as attainment or unclassifiable pursuant to the Act Section 107(d)(i)(D) or (E) for the pollutant on the date of its complete application, and
- 2.23.3.2 In the case of a major stationary source, the pollutant would be emitted in significant amounts, or, in the case of a major modification, there would be a significant net emissions increase of the pollutant.
- 2.24 "Natural conditions" means those naturally occurring phenomena that reduce visibility as measured in terms of visual range, contrast, or coloration.
- 2.25 "Necessary pre-construction approvals or permits" means those permits or approvals required under Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the SIP.
- 2.26 "Net emission increase" means the amount by which the sum of sections 2.26.1 and 2.26.2 exceeds zero:
- 2.26.1 Any increase in actual emissions from a particular physical change or change in method of operation at a stationary source, and
- 2.26.2 Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.
- 2.26.3 An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date which is ten years before construction on the particular change commences, but not before January 6, 1975, and the date that the increase from the particular change occurs.
- 2.26.4 An increase or decrease in actual emissions is creditable only if the District or EPA has not relied on it in issuing a permit for the source under this regulation or 40 CFR Section 52.21, which permit is in effect when the increase in actual emissions from the particular change occurs.
- 2.26.5 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.
- 2.26.6 An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
- 2.26.7 A decrease in actual emissions is creditable only to the extent that:
- 2.26.7.1 The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions,
- 2.26.7.2 It is local, state, and federally enforceable at and after the time that actual construction on the particular change begins, and
- 2.26.7.3 It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.
- 2.26.8 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.
- 2.27 "Potential to emit" means the maximum capacity of a stationary source to emit a pollutant under its physical or 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 local, or state and federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

- 2.28 "Secondary emissions" means emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this regulation, secondary emissions shall 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 offsite support facility which would not otherwise 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.
- 2.28.1 Emissions from ships or trains coming to or from the new or modified stationary source, and
- 2.28.2 Emissions from any offsite support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification.
- 2.29 "Significant" means, in reference to a net emissions increase or the potential of a source to emit any of the pollutants, a rate of emissions that would equal or exceed any of the rates given in Appendix A.
- 2.29.1 In reference to a net emissions increase or the potential of a source to emit a pollutant subject to regulation under the Act that is not listed in Appendix A, any emissions rate.
- 2.29.2 Notwithstanding section 2.29.1 and Appendix A, "significant" means any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within ten kilometers of a Class I area, and have an impact on such area equal to or greater than one ug/m³, (24 hour average).
- 2.30 "State Implementation Plan" (SIP) means the most recently prepared plan or revision thereof required by the Act Section 110 which has been approved by EPA.
- 2.31 "Stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Act.
- 2.32 "Visibility impairment" means any humanly perceptible change in visibility (visual range, contrast, or coloration) from that which would have existed under natural conditions.

SECTION 3 Ambient Air Increments

In areas designated as Class I, II or III, increases in pollutant concentration over the baseline concentration shall be limited to the levels specified in Appendix B. For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

SECTION 4 Ambient Air Ceilings

- 4.1 No concentration of a pollutant specified in Section 1 shall exceed:
- 4.1.1 The concentration permitted under the national secondary ambient air quality standard,
or

- 4.1.2 The concentration permitted under the national primary ambient air quality standard, whichever concentration is lower for the pollutant for a period of exposure.

SECTION 5 Area Classifications

- 5.1 The following areas shall be Class I areas and may not be redesignated:
- 5.1.1 International parks,
- 5.1.2 National wilderness areas and national memorial parks which exceed 5,000 acres in size, and
- 5.1.3 National parks which exceed 6,000 acres in size.
- 5.2 Any other area, unless otherwise specified in the legislation creating such an area, is designated Class II but may be redesignated as provided in 40 CFR Part 51 Subpart I Section 51.166(g).
- 5.3 The provisions of this regulation relating to visibility protection shall apply only to sources which may impact a mandatory Class I federal area.

SECTION 6 Exclusions From Increment Consumption

- 6.1 Upon written request of the Governor of the Commonwealth of Kentucky, made after notice and opportunity for at least one public hearing to be held in accordance with procedures established in Regulation 2.07, EPA shall exclude the following concentrations in determining compliance with a maximum allowable increase:
- 6.1.1 Concentrations attributable to the increase in emissions from stationary sources which have been converted from the use of petroleum products, natural gas, or both by reason of an order in effect under a federal statute or regulation over the emissions from such sources before the effective date of such an order,
- 6.1.2 Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of a natural gas curtailment plan in effect pursuant to the federal statute over the emissions from such sources before the effective date of such plan,
- 6.1.3 Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources, and
- 6.1.4 Concentrations attributable to the temporary increase in emissions of sulfur dioxide, particulate matter, or nitrogen oxides from stationary sources which are affected by plan revisions approved by EPA as meeting the criteria specified in section 6.4.
- 6.2 No exclusion of such concentrations shall apply more than five years after the effective date of the order to which section 6.1.1 or section 6.1.2 refers, whichever is applicable. If both such order and plan are applicable, no such exclusion shall apply more than five years after the later of such effective dates.
- 6.3 No exclusion under this section shall occur later than nine months after August 7, 1980, unless a SIP revision meeting the requirements of 40 CFR Section 51.166 has been approved by EPA.
- 6.4 For purposes of excluding concentrations pursuant to section 6.1.4, the plan revision referred to in section 6.3 shall specify the following:
- 6.4.1 The time over which the temporary emission increase of sulfur dioxide, particulate matter, or nitrogen oxides would occur. Such time shall not exceed two years in duration unless a longer time is approved by EPA,

- 6.4.2 That the time period for excluding certain contributions in accordance with section 6.4.1 is not renewable, and
- 6.4.3 That no emissions increase will occur from a stationary source which would:
 - 6.4.3.1 Impact a Class I area or an area where an applicable increment is known to be violated, or
 - 6.4.3.2 Cause or contribute to the violation of a national ambient air quality standard,
- 6.4.4 Limitations shall be in effect at the end of the time period specified in section 6.4.1 which would ensure that the emissions levels from stationary sources affected by the plan revision would not exceed those levels occurring from such sources before the plan revision was approved.

SECTION 7 Stack Heights

- 7.1 The degree of emission limitation required for control of any air pollutant under this regulation shall not be affected in any manner by:
 - 7.1.1 So much of the stack height of any source as exceeds good engineering practice, or
 - 7.1.2 Any other dispersion technique.
- 7.2 Section 7.1 shall not apply with respect to stack heights in existence before December 31, 1970, or to dispersion techniques implemented before then.
- 7.3 The District may require an increase in the stack height of a proposed new source if the applicant's modelling demonstration indicates an inordinate amount of increment consumption. In no event shall such request exceed the stack height allowed for the modelling demonstration pursuant to section 7.1.

SECTION 8 Review of Major Stationary Sources and Major Modifications; Source Applicability and Exemptions

- 8.1 No major stationary source or major modifications to which Sections 9 to 17 apply shall begin actual construction without a permit which states that the stationary source or modification would meet those requirements.
- 8.2 The requirements of Sections 9 to 17 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulations under the Act that it would emit, except as this regulation otherwise provides.
- 8.3 The requirements of Sections 9 to 17 shall apply only to any major stationary source or major modification that would be constructed in an area designated as attainment or unclassifiable pursuant to the Act Section 107(d)(1)(D) or (E).
- 8.4 The requirements of Sections 9 to 17 shall not apply to a particular major stationary source or major modification if the owner or operator:
 - 8.4.1 Obtained all final federal, state and local pre-construction approvals effective before March 1, 1978,
 - 8.4.2 Commenced construction before March 19, 1979, and
 - 8.4.3 Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable time, or
 - 8.4.4 The source or modification would be a nonprofit health or nonprofit educational institution, or a major modification would occur at such an institution, and the Governor of the Commonwealth of Kentucky requests that it be exempt from those requirements, or

- 8.4.5 The source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and the source does not belong to any of the following categories:
- 8.4.5.1 Coal cleaning plants (with thermal dryers),
 - 8.4.5.2 Kraft pulp mills,
 - 8.4.5.3 Portland cement plants,
 - 8.4.5.4 Primary zinc smelters,
 - 8.4.5.5 Iron and steel mills,
 - 8.4.5.6 Primary aluminum ore reduction plants,
 - 8.4.5.7 Primary copper smelters,
 - 8.4.5.8 Municipal incinerators capable of charging more than 250 tons of refuse per day,
 - 8.4.5.9 Hydrofluoric, sulfuric, or nitric acid plants,
 - 8.4.5.10 Petroleum refineries,
 - 8.4.5.11 Lime plants,
 - 8.4.5.12 Phosphate rock processing plants,
 - 8.4.5.13 Coke oven batteries,
 - 8.4.5.14 Sulfur recovery plants,
 - 8.4.5.15 Carbon black plants (furnace process),
 - 8.4.5.16 Primary lead smelters,
 - 8.4.5.17 Fuel conversion plants,
 - 8.4.5.18 Sintering plants,
 - 8.4.5.19 Secondary metal production plants,
 - 8.4.5.20 Chemical process plants,
 - 8.4.5.21 Fossil-fuel boilers (or combination thereof) totaling more than 250 million BTUs per hour heat input,
 - 8.4.5.22 Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,
 - 8.4.5.23 Taconite ore processing plants,
 - 8.4.5.24 Glass fiber processing plants,
 - 8.4.5.25 Charcoal production plants,
 - 8.4.5.26 Fossil fuel-fired steam electric plants of more than 250 million BTUs per hour heat input, or
 - 8.4.5.27 Any other stationary source category which, as of August 7, 1980, is being regulated under the Act Section 111 or 112 or 40 CFR Parts 60 and 61, or
- 8.4.6 The source is a portable stationary source which has previously received a permit under this regulation, and
- 8.4.6.1 The owner or operator proposes to relocate the source and emissions of the source at the new location would be temporary,
 - 8.4.6.2 The emissions from the source would not exceed its allowable emissions,
 - 8.4.6.3 The emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated, and
 - 8.4.6.4 Reasonable notice is given to the District prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the District not less than ten days in advance of the

- proposed relocation unless a different time duration is previously approved by the District.
- 8.4.7 The source or modification was not subject to 40 CFR Section 52.21 or this regulation with respect to particulate matter, as in effect before July 31, 1987, and the owner or operator:
- 8.4.7.1 Obtained all final federal, state, and local pre-construction approvals or permits necessary under the applicable SIP before July 31, 1987 or any earlier time required under the SIP, and
- 8.4.7.2 Commenced construction within 18 months after July 31, 1987, and
- 8.4.7.3 Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable period of time.
- 8.4.8 The source or modification was subject to 40 CFR Section 52.21 or this regulation, with respect to particulate matter, as in effect before July 31, 1987 and the owner or operator submitted an application for a permit under such regulations before that date, and EPA subsequently determines that the application as submitted was complete with respect to the particulate matter requirements then in effect in this regulation. Instead, the requirements of Sections 9 to 17 that were in effect before July 31, 1987 shall apply to such source or modification.
- 8.5 The requirements of Sections 9 to 17 shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, relative to that pollutant, the source or modification is located in an area designated as non-attainment pursuant to the Act Section 107(d)(1)(A), (B), or (C).
- 8.6 The requirements of Sections 10, 12 and 14 shall not apply to a major stationary source or major modification with respect to a particular pollutant, if the allowable emissions of that pollutant from the source, or the net emissions increase of that pollutant from the modifications:
- 8.6.1 Would impact no Class I area and no area where an applicable increment is known to be violated, and
- 8.6.2 Would be temporary.
- 8.7 The requirements of Sections 10, 12 and 14 as they relate to any maximum allowable increase for a Class II area shall not apply to a major modification at a stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each pollutant subject to regulations under the Act from the modification after the application of BACT would be less than 50 tons per year.
- 8.8 The District may exempt the stationary source or modification from the requirements of 40 CFR Section 52.21 or Regulation 2.05 with respect to monitoring for a particular pollutant if:
- 8.8.1 The emissions increase of the pollutant from the new source or the net emissions increase of the pollutant from the modification would cause, in any area, air quality impacts less than the amounts given in Appendix C, or
- 8.8.2 The concentrations of the pollutant in the area that the source or modifications would affect are less than the concentrations listed in Appendix C, or the pollutant is not listed in Appendix C.
- 8.9 The requirements for BACT in Section 9 and the requirements for air quality analyses in section 12.1 shall not apply to a particular stationary source or modification that was subject to 40 CFR Section 52.21 (1978) if the owner or operator of the source or modification

submitted an application for a permit under those regulations before August 7, 1980, and EPA subsequently determines that the application as submitted before that date was complete. Instead, the requirements at 40 CFR Section 52.21(j) "Control Technology Review" and (n) "Source Information" (1978) apply to any such source or modification.

- 8.10.1 The requirements for air quality monitoring in sections 12.1.2 through 12.1.4 shall not apply to a particular source or modification that was subject to 40 CFR Section 52.21 (1978) if the owner or operator of the source or modification submits an application for a permit under that regulation on or before June 8, 1981, and EPA subsequently determines that the application as submitted before that date was complete with respect to the requirements of that regulation other than those in sections 12.1.2 through 12.1.4, and with respect to the requirements for such analyses at 40 CFR Section 52.21(m)(2) (1978) in regard to post-construction monitoring. Instead, the latter requirements shall apply to any such source or modification.
- 8.10.2 The requirements for air quality monitoring in sections 12.1.2 through 12.1.4 shall not apply to a particular source or modification that was not subject to 40 CFR Section 52.21 (1978) if the owner or operator of the source or modification submits an application for a permit under that regulation on or before June 8, 1981, and EPA subsequently determines that the application as submitted before that date was complete, except with respect to the requirements in sections 12.1.2 through 12.1.4.
- 8.11.1 At the discretion of EPA, the requirements for air quality monitoring of PM₁₀ in sections 12.1.1 through 12.1.4 may not apply to a particular source or modification when the owner or operator of the source or modification submits an application for a permit under 40 CFR Section 52.21 on or before June 1, 1988 and the District subsequently determines that the application as submitted before that date was complete, except with respect to the requirements for monitoring particulate matter in sections 12.1.1 through 12.1.4.
- 8.11.2 The requirements for air quality monitoring of PM₁₀ in sections 12.1.2, 12.1.4 and 12.3.1 shall apply to a particular source or modification if the owner or operator of the source or modification submits an application for a permit under 40 CFR Section 52.21 or this regulation after June 1, 1988 and no later than December 1, 1988. The data shall have been gathered over at least the period from February 1, 1988 to the date the application becomes otherwise complete in accordance with the provisions set forth under section 12.1.8 except that, if EPA determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than four months), then the data that section 12.1.8 requires shall have been gathered over the shorter period.
- 8.12 The requirements of section 10.1.2 shall 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 application for a permit under 40 CFR Section 52.21 or this regulation before the provisions embodying the maximum allowable increase took effect as part of the applicable SIP and EPA subsequently determined that the application as submitted before that date was complete.

SECTION 9 Control Technology Review

- 9.1 A major stationary source or major modification shall meet each applicable emissions limitation under the SIP and each applicable emission standard and standard of performance pursuant to 40 CFR Parts 60 and 61.
- 9.2 A new major stationary source shall apply BACT for each pollutant subject to regulation under the Act that it would have the potential to emit in significant amounts.
- 9.3 A major modification shall apply BACT for each pollutant subject to regulation under the Act for which it would result in a significant net emissions increase at the source. 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.
- 9.4 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.

SECTION 10 Source Impact Analysis

- 10.1 The owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of:
 - 10.1.1 Any national ambient air quality standard in any air quality control region, or
 - 10.1.2 Any applicable maximum allowable increase over the baseline concentration in any area.

SECTION 11 Air Quality Models

- 11.1 All estimates of ambient concentrations required under this section shall be based on the applicable air quality models, data bases, and other requirements specified in the "Guideline on Air Quality Models" (1987) which is incorporated into 40 CFR Section 52.21 by reference. The guideline (EPA publication No. 450/2-78-027R) (1987) is for sale from the U. S. Department of Commerce, National Technical Information Service, 5825 Port Royal Road, Springfield, Virginia 22161. It is also available for inspection at the District Office, 850 Barret Avenue, Louisville, Kentucky. This incorporation by reference into 40 CFR Section 52.21 was approved by the Director of the Federal Register on February 5, 1988. These materials are incorporated as they existed on the date of approval and a notice of any change will be published in the Federal Register. The District shall amend this regulation within nine months to include such changes.
- 11.2 Where an air quality impact model specified in the "Guideline on Air Quality Models" (1987) 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 state program. Written approval of 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 under procedures developed in accordance with Section 16.

SECTION 12 Air Quality Analysis

- 12.1.1 Pre-application analysis. Any application for a permit under this regulation shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:
 - 12.1.1.1 For the source, each pollutant that it would have the potential to emit in a significant amount as defined in section 2.29.1, and
 - 12.1.1.2 For the modification, each pollutant for which it would result in a significant net emissions increase.
- 12.1.2 With respect to any such pollutant for which no national ambient air quality standard exists, the analysis shall contain such air quality monitoring data as the District determines are necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.
- 12.1.3 With respect to any such pollutant (other than non-methane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase.
- 12.1.4 In general, the continuous air quality monitoring data that are required shall have been gathered over a period of at least one year and shall represent at least the year preceding receipt of the application, except that, if the applicant demonstrates to the District's satisfaction through historical data or dispersion models that the monitoring data gathered over a period shorter than one year (but not to be less than four months) will be obtained during a time period when maximum air quality levels can be expected, and that a complete and adequate analysis can be performed with such data; then the data that are required shall have been gathered over at least that shorter period.
- 12.1.5 For any application which becomes complete, except as to the requirements of sections 12.1.3 and 12.1.4, between June 8, 1981, and February 9, 1982, the data that section 12.1.3 requires, shall have been gathered over at least the period from February 9, 1981, to the date the application becomes otherwise complete, except that:
 - 12.1.5.1 If the source or modification would have been major for that pollutant under 40 CFR Section 52.21 as in effect on June 19, 1978, any monitoring data shall have been gathered over at least the period required by those regulations.
 - 12.1.5.2 If EPA determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than four months), the data that section 12.1.3 requires shall have been gathered over at least that shorter period.
 - 12.1.5.3 If the monitoring data would relate exclusively to ozone and would not have been required under 40 CFR Section 52.21 as in effect on June 19, 1978, EPA may waive the otherwise applicable requirements of section 12.1.5 to the extent that the applicant shows that the monitoring data would be unrepresentative of air quality over a full year.
- 12.1.6 The owner or operator of a proposed stationary source or modification of volatile organic compounds who satisfies all conditions of 40 CFR Part 51 Appendix S Section IV may provide post-approval monitoring data for ozone in lieu of providing pre-construction data as required under section 12.1.1.
- 12.1.7 For any application that becomes complete, except as to the requirements of sections 12.1.3 and 12.1.4 pertaining to PM₁₀ after December 1, 1988 and no later than August 1, 1989 the data that 12.1.3 requires shall have been gathered over at least the period from August 1, 1989 to the date the application becomes otherwise complete,

- except that if EPA determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than four months), the data that section 12.1.3 requires shall have been gathered over that shorter period.
- 12.1.8 With respect to any requirements for air quality monitoring of PM₁₀ under sections 8.11.1 and 8.11.2, the owner or operator of the source or modification shall use EPA approved reference or equivalent monitoring method and siting criteria that has been approved by the District and shall estimate the ambient concentrations of PM₁₀ using the data collected by such approved monitoring method in accordance with estimating procedures approved by EPA.
- 12.2.1 Post-construction monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the District determines is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in any area.
- 12.3.1 Operations of monitoring stations. The owner or operator of a major stationary source or major modification shall meet the requirements of 40 CFR Part 58 Appendix B during the operation of monitoring stations for purposes of satisfying Section 12.

SECTION 13 Source Information

- 13.1 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 this regulation. With respect to a major source or major modification to which Sections 9, 11, 13 and 15 apply, such information shall include:
- 13.1.1 A description of the nature, location, design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout,
- 13.1.2 A detailed schedule for construction of the source or modification, and
- 13.1.3 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.
- 13.2 Upon request of the District, the owner or operator shall also provide information on:
- 13.2.1 The air quality impact of the source or modification, including meteorological and topographical data necessary to estimate such impact, and
- 13.2.2 The air quality impacts, and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.

SECTION 14 Additional Impact Analysis

- 14.1 The owner or operator shall provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.
- 14.2 The owner or operator shall provide 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.

- 14.3 Visibility monitoring. The District may require monitoring of visibility in any Class I area impacted by the proposed new stationary source or major modification using human observations, teleradiometers, photographic cameras, nephelometers, fine particulate monitors, or other appropriate methods as specified by EPA. The method selected shall be determined on a case-by-case basis by the District. Any visibility monitoring required by the District in a Class I area will be approved by the Federal Land Manager. Data obtained from any visibility monitoring shall be made available to the Cabinet, EPA, and the Federal Land Manager upon request.

SECTION 15 Sources Impacting Class I Areas; Additional Requirements

- 15.1 Notice to EPA and Federal Land Managers.
The District shall provide written notice of any permit application for a proposed major stationary source or major modification the emissions from which may affect a Class I area to the Cabinet EPA, the Federal Land Manager, and the Federal official charged with direct responsibility for management of any lands within any such area. The District shall provide such notice promptly after receiving the application. Such notification shall include a copy of all information relevant to the permit application and shall be given within 30 days of receipt 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 Class I area. The District shall also provide the Federal Land Manager and such Federal officials with a copy of the preliminary determination required under Section 16, and shall make available to them any materials used in making that determination, promptly after the District makes it. Finally, the District shall also notify all affected Federal Land Managers within 30 days of receipt of any advance notification of any such permit application.
- 15.2 Federal Land Manager.
The Federal Land Manager and the Federal official charged with direct responsibility for management of such lands have an affirmative responsibility to protect the air quality related values (including visibility) of such lands and to consider, in consultation with EPA, whether a proposed source or modification will have an adverse impact on such values.
- 15.3 Visibility analysis.
The District shall consider any analysis performed by the Federal Land Manager provided within 30 days of the notification and analysis required by section 15.1 that shows that a proposed new major stationary source or major modification may have an adverse impact on visibility in any Class I area. If the District finds that such an analysis does not demonstrate to the satisfaction of the District that an adverse impact on visibility will result in the Class I area, the District shall, in the public notice required in Regulation 2.07, either explain that decision or give notice as to where the explanation may be obtained.
- 15.4 Denial; impact on air quality related values.
The Federal Land Manager of any such lands may demonstrate to the District that the emissions from a proposed source or modification would have an adverse impact on the air quality related values (including visibility) of those lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area as defined in Appendix B. If the District concurs with such demonstration then the District shall not issue the permit.

15.5 Class I variances.

The owner or operator of a proposed source or modification may demonstrate to the Federal Land Manager that the emissions from such source or modification would have no adverse impact on the air quality related values of any such lands (including visibility), notwithstanding that the change in air quality resulting from emissions from such source or modification would cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the Federal Land Manager concurs with such demonstration and he so certifies, the Cabinet may authorize the District - provided that the applicable requirements of this regulation are otherwise met - to 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 maximum allowable increases in Appendix D over minor source baseline concentration for such pollutants.

15.6 Sulfur dioxide variance by Governor with Federal Land Manager's concurrence.

The owner or operator of a proposed source or modification which cannot be approved under section 15.5 may demonstrate to the Governor of the Commonwealth of Kentucky that the source cannot be constructed by reason of any maximum allowable increases in sulfur dioxide for a period of 24 hours or less applicable to any Class I area and that a variance under this clause would not adversely affect the air quality related values of the area (including visibility). The Governor, after consideration of the Federal Land Manager's recommendation (if any) and subject to his concurrence, may, after notice and public hearing, grant a variance from such maximum allowable increase. If such variance is granted, the District shall issue a permit to such source or modification pursuant to the requirements of section 15.8 provided that the applicable requirements of this regulation are otherwise met.

15.7 Variance by the Governor with the President's concurrence.

In any case where the Governor of the Commonwealth of Kentucky recommends a variance in which the Federal Land Manager does not concur, the recommendations of the Governor and the Federal Land Manager shall be transmitted to the President of the United States of America. If the variance is approved, the District shall issue a permit pursuant to the requirements of section 15.8 provided that the applicable requirements of this regulation are otherwise met.

15.8 Emission limitations for Presidential or gubernatorial variance.

In the case of a permit issued pursuant to sections 15.6 or 15.7, the source or modification shall comply with such emission limitations as may be necessary to assure that emissions of sulfur dioxide from the source or modification would not (during any day on which the otherwise applicable maximum allowable increases are exceeded) cause or contribute to concentrations which would exceed the maximum allowable increases over the baseline concentration as specified in Appendix E 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.

SECTION 16 Public Participation

The District shall follow the applicable procedures of Regulation 2.07 in processing applications under this regulation.

SECTION 17 Source Obligation

- 17.1 Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this regulation or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this regulation who commences construction after April 21, 1982 without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.
- 17.2 Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The District may extend the 18 month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.
- 17.3 Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the SIP and any other requirements under local, state, or federal law.
- 17.4 At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of Sections 9 to 18 shall apply to the source or modification as though construction had not yet commenced on the source or modification.

SECTION 18 Environmental Impact Statements

Whenever any proposed source or modification is subject to action by a federal agency which might necessitate preparation of an environmental impact statement pursuant to the National Environmental Policy Act (42 U.S.C. 4321), review by EPA conducted pursuant to this regulation shall be coordinated with the broad environmental reviews under that Act and under the Act Section 309 to the maximum extent feasible and reasonable.

SECTION 19 Innovative Control Technology

- 19.1 An owner or operator of a proposed major stationary source or major modification may request the District in writing to approve a system of innovative control technology.
- 19.2 The District shall, with the consent of the Governor of the Commonwealth of Kentucky, determine that the source or modification may employ a system of innovative control technology if:
 - 19.2.1 The proposed control system would not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function,
 - 19.2.2 The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required under section 9.2 by a date specified by the District. Such date shall not be later than four years from the time of startup or seven years from permit issuance,
 - 19.2.3 The source or modification would meet the requirements of sections 9 and 10 based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified by the District,
 - 19.2.4 The source or modification would not before the date specified by the District:

- 19.2.4.1 Cause or contribute to a violation of an applicable national ambient air quality standard, or
- 19.2.4.2 Impact any Class I area, or
- 19.2.4.3 Impact any area where an applicable increment is known to be violated, and
- 19.2.5 All other applicable requirements, including those for public participation, have been met.
- 19.3 The District shall withdraw any approval to employ a system of innovative control technology made under this regulation if:
 - 19.3.1 The proposed system fails by the specified date to achieve the required continuous emissions reduction rate,
 - 19.3.2 The proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare, or safety, or
 - 19.3.3 The District decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.
- 19.4 If a source or modification fails to meet the required level of continuous emission reduction within the specified time period or the approval is withdrawn in accordance with section 19.3, the District may allow the source or modification up to an additional three years to meet the requirement for the application of BACT through use of a demonstrated system of control.

SECTION 20 Permit Rescission

- 20.1 Permit rescission. Any permit issued under this regulation or a prior version of this regulation shall remain in effect unless, and until, it expires under Section 17 or is rescinded.
- 20.2 Any owner or operator of a stationary source or modification who holds a permit for the source or modification which was issued under 40 CFR Section 52.21 or this regulation as in effect on July 30, 1987, or any earlier version of 40 CFR Section 52.21, may request that the District rescind the permit or a particular portion of the permit.
- 20.3 The District shall grant an application for rescission if the application shows that this regulation would not apply to the source or modification.
- 20.4 If the District rescinds a permit under this section, the public shall be given adequate notice of the rescission. Publication of an announcement of rescission in a newspaper of general circulation in the affected region within 60 days of the rescission shall be considered adequate notice.

Adopted v1/4-19-72; effective 4-19-72; amended v2/6-13-79, v3/4-21-82, v4/11-16-83, v5/4-16-86, v6/2-17-88, v7/4-19-89.

	Date Submitted	Date Approved	Federal Register
Original Reg:	08/02/89	11/13/89	54 FR 47210

Appendix A to Regulation 2.05

Significant Net Emissions Rates

Pollutant	Emissions Rate
Carbon monoxide	100 tons per year (tpy)
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
Particulate matter	25 tpy of particulate matter emissions
Particulate matter	15 tpy of PM ₁₀ emissions
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 ₂ S)	10 tpy
Total reduced sulfur (including H ₂ S)	10 tpy
Reduced sulfur compounds (including H ₂ S)	10 tpy

Appendix B to Regulation 2.05

Ambient Air Increments

Pollutant	Maximum Allowable Increase (Micrograms per cubic meter)
Class I Area (Mammoth Cave, Ky)	
Particulate Matter:	
TSP, annual geometric mean	5
TSP, 24-hour maximum	10
Sulfur Dioxide:	
Annual arithmetic mean	2
24-hour maximum	5
3-hour maximum	25
Nitrogen Dioxide:	
Annual average	2.5
Class II Area (Jefferson County, KY)	
Particulate Matter:	
TSP, annual geometric mean	19
TSP, 24-hour maximum	37
Sulfur Dioxide:	
Annual arithmetic mean	20
24-hour maximum	91
3-hour maximum	512
Nitrogen Dioxide:	
Annual average	25
Class III Area	
Particulate Matter:	
TSP, annual geometric mean	37
TSP, 24-hour maximum	75
Sulfur Dioxide:	
Annual arithmetic mean	40
24-hour maximum	182
3-hour maximum	700
Nitrogen Dioxide:	
Annual average	25

Appendix B to Regulation 2.05 (con't)

Notice:

No single owner or operator may consume an inordinate portion of an increment, as determined by the District, without approval by the Board. The Board may then weigh air quality and economic impacts on the community in determining the appropriate amount of increment allowed to the source.

Appendix C to Regulation 2.05

Significant Air Quality Impact

Pollutant	Air Quality	Averaging Time
Carbon monoxide	575 ug/m ³	8-hour average
Nitrogen dioxide	14 ug/m ³	annual average
Particulate matter	10 ug/m ³ of TSP	24-hour average
Particulate matter	10 ug/m ³ of PM ₁₀	24-hour average
Sulfur dioxide	13 ug/m ³	24-hour average
Ozone	No de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more volatile organic compounds subject to this regulation would be required to perform an ambient impact analysis including the gathering of ambient air quality data.	
Lead	0.1 ug/m ³	3-month average
Mercury	0.25 ug/m ³	24-hour average
Beryllium	0.001 ug/m ³	24-hour average
Fluorides	0.25 ug/m ³	24-hour average
Vinyl chloride	15 ug/m ³	24-hour average
Hydrogen sulfide	0.2 ug/m ³	1-hour average
Total reduced sulfur	10 ug/m ³	1-hour average
Reduced sulfur compounds	10 ug/m ³	1-hour average

Appendix D to Regulation 2.05

Ambient Air Increments

for Class I Variances

Pollutant	Maximum Allowable Increase (micrograms per cubic meter)
Particulate Matter: TSP, annual geometric mean TSP, 24-hour maximum	19 37
Sulfur Dioxide: Annual arithmetic mean 24-hour maximum 3-hour maximum	20 91 325
Nitrogen Dioxide: Annual arithmetic mean	25

Appendix E to Regulation 2.05

**Ambient Air Increments for Presidential
or Gubernatorial Sulfur Dioxide Variances**

**Maximum Allowable Increase
(Micrograms per cubic meter)**

Terrain areas

Period of Exposure	Low	High
24-hour maximum	36	62
3-hour maximum	130	221