401 KAR 51:001. Definitions for 401 KAR Chapter 51.

RELATES TO: KRS 48.010(15)(a), 224.01-010, 224.20-100, 224.20-110, 224.20-120, 40 CFR Chapter I, Part 50, Appendices A-R, 51.100(s), 51.121 as amended at 65 FR 11222 (March 2, 2000), 51 Appendix S, 52.920, 53, 60, 60 Appendices A. B. 61. 61 Appendix B, 63 Appendices A-D, 70.2, 75, 82, (96, 42 USC 7401 to 7671q

STATUTORY AUTHORITY: KRS 224.10-100(5)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation defines the terms used in 401 KAR Chapter 51. The definitions contained in this administrative regulation are not more stringent than the corresponding federal definitions.

Section 1. Definitions. The definitions with citations to the Code of Federal Regulations shall be governed by 40 C.F.R. Parts 50 through 96, as published on July 1, 2012.

(1) "Acid rain emissions limitation" means a limitation on emissions of S02 or NOx imposed by the Acid Rain Program under 42 U.S.C. 7651 to 7651o.

(2) "Actual emissions"

(a) Means the actual rate of emissions of a regulated NSR pollutant from an emissions unit as determined according to the following:

1. Actual emissions as of a particular date equals the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive twenty-four (24) month period, that precedes that date and is representative of normal source operation, unless a different time period is more representative of normal source operation; and

2. The unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time periods are used to calculate actual emissions;

(b) Means source-specific allowable emissions for the unit are· equivalent to actual emissions of the unit if the cabinet has made an equivalency determination pursuant to 40 C.F.R. 51.166;

(c) Means, for an emissions unit that has not begun normal operations on a particular date, the potential to emit of the unit on that date; and

(d) Does not mean:

1; Calculating if a significant emissions increase has occurred; or

2. Establishing a PAL under 401 KAR 51:017, Section 20.

(3) "Actuals PAL" or "PAL" means a plant-wide applicability limit established for a major stationary source based on the baseline actual emissions of all emissions units at the source that emit or have the potential to emit the PAL pollutant.

(4) "Adverse impact on visibility" is defined by 40 C.F.R. 51.301.

(5) "Affected facility" means an apparatus, building, operation, road, or other entity r series of entities that emits or may emit an air contaminant into the outdoor atmosphere.

(6) "Air contaminant" is defined by KRS 224.01-010(1).

(7) "Air pollutant" means air contaminant.

(8) "Air pollution" is defined by KRS 224.01-010(3).

(9) "Air pollution control equipment" means a mechanism, device, or contrivance used to control or prevent air pollution, that is not, aside from air pollution control laws and administrative regulations, vital to production of the normal product of the source or to its normal operation.

(10) "Allocate" or "allocation" means the number of NOx allowances to be credited to a NOx budget unit.

(11) "Allocation period" means each three (3) year period beginning May 1, 2004.

(12) "Allowable emissions" means:

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

1. The applicable standards codified in 40 C.F.R. Parts 60 and 61;

2. The applicable SIP emissions limitations, including those with a future compliance date; or

3. The emissions rates specified as a federally enforceable permit condition, including those with a future compliance date; or

(b) For an actuals PAL the emissions rate of a stationary source calculated 4 considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit, and the most stringent provision· of paragraph (a)1. through 3. of this subsection.

(13) "Alteration" means:

(a) The installation or replacement of air pollution control equipment at a source; or

(b) A physical change in or change in the method of operation of an affected facility that increases the potential to emit a pollutant, to which a standard applies, emitted by the facility or that results in the, emission of an air pollutant, to which a standard applies, not previously emitted.

(14) "Alternative method" is defined by 40 C.F.R. 60.2. For purposes of this definition, "administrator" means both the U.S. EPA and the cabinet.

(15) "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.

(16) "Ambient air quality standard" means a numerical expression of a specified concentration level for a particular air contaminant and the time averaging interval over which that concentration level is measured and is a goal to be achieved in a stated time through the application of appropriate preventive or control measures.

(17) "ANSI" means American National Standards Institute.

(18) "AOAC" means Association of Official Analytical Chemists.

(19) "ASTM" means American Society for Testing and Materials.

(20) "Baseline actual emissions" means the rate of emissions, in tons per year, of a regulated NSR pollutant, that:

(a) For an existing electric utility steam generating unit (EUSGU), the unit actually emitted during any consecutive twenty-four (24) month period selected by the owner or operator within the five (5) year period immediately preceding the date the owner or operator begins actual construction of the project, unless a different twenty-four (24) hour time period is more representative of normal source operation.

1. The rate is an average that:

a. Includes fugitive emissions, to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions;

b. is adjusted downward, to exclude any noncompliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive twenty-four (24) month period: and

c. Is based on any consecutive twenty-four (24) month period for which there is adequate information for determining annual emissions, in tons per year, and for adjusting this amount as necessary according to clause b of this subparagraph: and

2. If a project involves multiple emissions units, only one. (1) consecutive twenty-four (24) month period is

used to determine the baseline actual emissions for the emissions units being changed with a different consecutive twenty-four (24) month period allowed for each regulated NSR pollutant;

(b) For· an existing emissions unit that is not an EUSGU, the unit actually emitted during any consecutive twenty-four (24) month period selected by the owner or operator within the ten l10) year period beginning on or after November 15, 1990, and immediately preceding the earlier of the date the owner or operator begins actual construction of the project or the date a complete permit application is received by the cabinet for a permit required under 401 KAR 51:017 or 51:052.

1. The rate is an average that:

a. Includes fugitive emissions, to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions;

b. Is adjusted downward:

(i) To exclude any noncom pliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive twenty-four (24) month-period;

(ii) To exclude any emissions that would have exceeded an emission limitation with which the major stationary source is required currently to comply if the source had been required to comply with the limitations during the consecutive twenty-four (24) month period; and

(iii) For an emission limitation that is part of a maximum achievable control technology standard proposed or promulgated under 40 C.F.R. Part 63, only if the Commonwealth of Kentucky has taken credit for the emissions reductions in an attainment demonstration or maintenance plan consistent with 40 C.F.R. 51.165(a)(3)(ii)(G); and

c. Is based on any consecutive twenty-four (24) month period for which there is adequate information for determining annual emissions, in tons per year, and for adjusting this amount as necessary according to clause b of this subparagraph.

2. If a project involves multiple emissions units, only one (1) consecutive twenty-four (24) month period is used for each regulated NSR pollutant to determine the baseline actual emissions for the emissions units being changed with a different consecutive twenty-four (24) month period;

(c). For a new emissions unit, equals zero for determining the emissions increase that will result from the initial construction and operation of the new unit and thereafter, for all other purposes, equals the unit's potential to emit; or

(d) For a PAL for a stationary source, is determined as follows:

1. For an existing EUSGU, in accordance with the procedures contained in 15 paragraph (a) of this subsection;

2. For other existing emissions units, in accordance with the procedures contained in paragraph (b) of this subsection; and

3. For a new emissions unit, in accordance with the procedures contained in paragraph (c) of this subsection.

(21) "Baseline area" means an intrastate area and every part of that area designated as attainment or unclassifiable pursuant to 42 U.S.C. 7407 (d)(1)(A)(ii) or (iii) in which the major source or major modification establishing the minor source baseline date would construct or would have an air quality impact equal to or greater than one (1) $\mu g/m^3$ annual average of the pollutant for which the minor source baseline date is established for SO_2, NO_2 or PM_{10} or equal to or greater than 0.3 $\mu g/m^3$ annual average for $PM_{2.5}$.

(a) Area redesignations under 42 U.S.C. 7407(d)(1)(A)(ii) or (iii) do not intersect and are not smaller than the area of impact of a major stationary source or major modification that:

1. Establishes a minor source baseline date; or

2. Is subject to 401 KAR 51:017 and· would be constructed in the Commonwealth of Kentucky.

(b) A baseline area established originally for total suspended particulate 10 (TSP) increments remains in effect to determine the amount of available PM_{10} increments, unless the cabinet rescinds the corresponding minor source baseline date.

(22) "Baseline concentration" means the ambient concentration level that exists in the baseline area on the date the applicable minor source baseline date is established.

(23) "Baseline date" means major source baseline date or minor source baseline date and is established for each pollutant for which increments or other equivalent measures have been established if the area in which the proposed source or modification would construct is designated as attainment or unclassifiable pursuant to 20 42 U.S.C. 7407(d)(1)(A)(ii) or (iii) for the pollutant on the date of the source's complete application; and

(a) For a major stationary source, the pollutant would be emitted in significant amounts: or

(b) For a minor modification, there would be a significant net emissions increase of the pollutant.

(24) "Begin actual construction" means:

(a) Initiation of physical on-site construction activities on an emissions unit that are of a permanent nature and include installation of building supports and foundations, laying underground pipe work, and construction of permanent storage structures; and

(b) For a change in method of operations, those on-site activities, other than the preparatory activities, that mark the initiation of the change.

(25) "Best available control technology" or "BACT" means an emissions limitation, including a · visible emission standard, based on the maximum degree of reduction for each regulated NSR pollutant that will be emitted from a proposed major stationary source or major modification and:

(a) Is determined by the cabinet pursuant to 401 KAR 51:017, Section 8, after taking into account energy; environmental, and economic impacts and other costs, to be achievable by the 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 that pollutant;

(b) Does not result in emissions of a pollutant that would exceed the emissions allowed by an applicable standard codified in 40 C.F.R. Parts 60 and 61: and

(c) Is satisfied by a design. equipment, work practice. or operational standard or combination of standards approved by the cabinet if:

1. The cabinet determines pursuant to 40 C.F.R. 51.166(b)(12) 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;

2. The standard establishes the emissions reduction achievable by implementation of the design, equipment, work practice, or operation; and

3. The standard provides for compliance by means that achieve equivalent results.

(26) "BOD" means biochemical oxidant demand.

(27) "Boiler" means an enclosed fossil or other fuel-fired combustion device
used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(28) "BTU" means British thermal unit.

(29) "Building, structure, facility, or installation" means all of the pollutant emitting activities that:

(a) Belong to the same industrial grouping or have. the same two (2) digit
major group code as described in the Standard Industrial Classification Manual;

(b) Are located on one (1) or more contiguous or adjacent properties;
(c) Are under the control of the same person or persons under common control; and

(d) Do not include the activities of a vessel.

(30) "C" means degree Celsius (centigrade).

(31) "Cabinet" is defined by KRS 224.01-010(9).

(32) "Cal" means calorie.

(33) "Capital expenditure" is defined by 40 C.F.R. 60.2.

(34) "cfm" means cubic feet per minute.

(35) "CH_4" means methane.

(36) "Clean coal technology" is defined by 40 C.F.R. 51.166(b)(33).

(37) "Clean coal technology demonstration project" is defined by 40 C.F.R.
10 51.166(b)(34).

(38) "Clinker" means the product of a portland cement kiln from which finished cement is manufactured by milling and grinding.

(39) "CO" means carbon monoxide.

(40) "C02· means carbon dioxide.

(41) "COD" means chemical oxidant demand.

(42)"Combined cycle system" means a system comprised of one (1) or more combustion turbines, heat recovery steam generators, or steam turbines configured to improve overall efficiency of electricity generation or steam production.

(43) "Combustion turbine" means an enclosed fossil or other fuel-fired device that is comprised of a compressor, a combustor, and a turbine, and In which the flue gas, resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.

(44) "Commence" means that an owner or operator:

(a) Has undertaken a continuous program of construction, modification, or reconstruction of an affected facility, or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction, modification, or reconstruction of an affected facility; or

(b) For construction of a major stationary source or major modification in the PSD or NSR program, has all necessary preconstruction approvals or permits, and:

1. Has 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. Has entered into binding agreements or contractual obligations, that 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.

(45) "Commence commercial operation" means to have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use. Except as provided in 401 KAR 51:195 or 40 C.F.R. 96.5:

(a) For a unit that is a NOx budget unit under 40 C.F.R. 96.4, on the date the unit commences commercial operation the date remains the unit's date of commencement of commercial operation even if the unit is subsequently modified, reconstructed, or repowered: or

(b) For a unit that is not a NOx budget unit under 40 C.F.R. 96.4, on the date the unit commences commercial operation, the date the unit becomes a NOx budget unit under 40 C.F.R. 96.4 is the unit's date of commencement of commercial operation.

(46) "Commence operation" means, for a NOx budget unit; to have begun a mechanical, chemical, or electronic process, including start-up of a unit's combustion chamber. Except as provided in 401 KAR 51:195 or 40 C.F.R. 96.5:

(a) For a unit that *is* a NOx budget unit under 40 C.F.R. 96.4 on the date of commencement of operation, the date remains the unit's date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered; or

(b) For a unit that is not a NOx budget unit under 40 C.F.R. 96.4, on the date of commencement of operation, the date the unit becomes a NOx budget unit under 40 C.F.R. 96.4, is the unit's date of commencement of operation.

(47) "Complete" is defined by 40 C.F.R. 51.166(b)(22).

(48) "Compliance schedule" means a time schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with a limitation or standard.

(49) "Compliance supplement pool" means the quantity of NOx allowances provided to Kentucky by the U.S. EPA to be:

(a) Allocated to NOx budget units that achieve early reduction: or

(b) Used to assist NOx budget sources that are unable to meet the compliance deadline as provided in 401 KAR 51:180, Section 5.

(50) "Construction" means:

(a) Fabrication. Erection, installation, or modification of an air contaminant source; or

(b) For the NSR program, any physical change or change in the method of operation, including fabrication, erection, installation, demolition, or modification of an emissions unit that would result in a change in emissions at an air contaminant source.

(51) "Continuous emissions monitoring system" or "CEMS" means an of the equipment necessary to meet the data acquisition and availability requirements of 401 KAR 51:017 or 51:052 to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.

(52) "Continuous emission monitoring system for NOx" or "CEMS for NOx" means the equipment required to sample, analyze, measure, and provide, by readings taken at least once every fifteen (15) minutes of the measured parameters, a permanent record of NOx emissions, expressed in tons per hour for NOx. The following systems are necessary component parts, as required by 40 C.F.R. Part 75, included in a continuous emissions monitoring system:

(a) Flow monitor;
(b) NOx pollutant concentration monitor:
(c) Diluent gas monitor (O_2 or CO_2);
(d) Continuous moisture monitor; and
(e) Automated data acquisition and handling system.

(53) "Continuous emissions rate monitoring system" or "CERMS" is defined by 40 C.F.R. 51.166(b)(46).

(54) "Continuous monitoring system" means the total equipment, required under the applicable administrative regulations in 401 KAR Chapters 50 to 65, used to sample, to condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

(55) "Continuous parameter monitoring system" or "CPMS" is defined by:

(a) 40 C.F.R. 51.166(b)(45) for401 KAR 51:017: or
(b) 40 C.F.R. 51.165(a)(1)(xxxiii) for401 KAR 51:052.

(56) "Control period" means the period beginning May 1 of a year and ending on September 30 of the same year, Inclusive.

(57) "Director” means Director of the· Division for Air Quality of the Energy and Environment Cabinet.

(58) "District" is defined by KRS 224.01-010(11).

(59) "dscf' means dry cubic feet at standard conditions.

(60) "dscm" means dry cubic meter at standard conditions.

(61) "Electric generating unit" means, for 401 KAR 51:160 to 51:195, a fossil fuel-fired boiler, combustion turbine, or a combined cycle system used to generate twenty-five (25) megawatts or more of electricity, some of which is offered for sale.

(62) "Electric utility steam generating unit" or "EUSGU" is defined by 40 C.F.R. 9 51.166(b)(30).

(63) "Emission standard" means that numerical limit that fixes the amount of an air contaminant or air contaminants that may be vented into the atmosphere from an affected facility or from air pollution control equipment installed in an affected facility.

(64) "Emissions unit" means any part of a stationary source, including an EUSGU, that emits or has the potential to emit a regulated NSR pollutant. For 401 KAR 51:017 and 51:052, there are two (2) types of emissions units:

(a) A new emissions unit, which is any emissions unit that is or will be newly constructed and that has existed for less than two (2) years from the date the unit first operated; and

(b) An existing emissions unit which is any emissions unit that does not meet the requirements in paragraph (a) of this subsection or is a replacement unit.

(65) "Enforceable as a practical matter" means that the emission or other standards contained in a permit or compliance schedule include:

(a) Technically accurate emission standards and the portions of the source that are subject to the standards;

(b) A time period adequate to demonstrate compliance with the standards: and

(c) The method the source shall use to achieve and demonstrate compliance with the limitations and standards, including appropriate monitoring, recordkeeping, and reporting.

(66) "Equivalent method" means a method of sampling and analyzing for an air pollutant that has been demonstrated to the cabinet and the U.S. EPA pursuant to 40 C.F.R. 53.3 to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

(67) "Excess NOx emissions" means any tonnage of nitrogen oxides emitted by a NOx budget unit during a control period that exceeds the NOx budget emissions limitation for the unit.

(68) "Exempt compound" or "exempt solvent" means an organic compound listed in the definition of volatile organic compound as not participating in atmospheric photochemical reactions.

(69) "Existing source" means a source that is not a new source.

(70) "Extreme nonattainment county" or "extreme nonattainment area" means a county or portion of a county designated extreme nonattainment for the national ambient air quality standard for ozone.

(71) "°F" means degree Fahrenheit.

(72) "Federal land manager" is defined by 40 C.F.R. 51.166(b)(24).

(73) "Federally enforceable" means all limitations and conditions that are enforceable by the U.S. EPA, including:

(a) Requirements developed under 40 C.F.R. Parts 60 and 61;

(b) Requirements in the Kentucky State Implementation Plan (SIP) approved by the U.S. EPA; and

(C) Any permit requirements established under 40 C.F.R. 52.21 or under the Kentucky SIP approved pursuant to 40 C.F.R. Part 51. Subpart I, including operating permits issued under an EPA-approved program incorporated into the SlP, that expressly requires adherence to a permit issued under the program.

(74) "Federally enforceable permit" means a permit issued under 401 KAR 52:020 or 52:030, as appropriate.

(75) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(76) "Fossil fuel" means natural gas; petroleum; coal; or a form of solid, liquid, or gaseous fuel derived from natural gas, petroleum, or coal.

77) "Fossil fuel fired" means, for a unit:

(a) The combustion of fossil fuel, alone or in combination with another fuel, if the fossil fuel combusted comprises more than fifty (50) percent of the annual heat input on a BTU basis during a year starting in 1995 or,. if a unit had no heat input starting in 1995, during the last year of operation of the unit prior to 1995: or

(b) The combustion of fossil fuel, alone or in combination with another fuel, if the fossil fuel is projected to comprise more than fifty (50) percent of the annual heat input on a BTU basis during a year, and the unit is to be fossil fuel fired as of the date during the year the unit begins combusting fossil fuel.

(78) "ft" means feet or foot.

(79) "Fuel" means natural gas; petroleum; coal; wood; or a form of solid, liquid, or gaseous fuel derived from these materials for the purpose of creating useful heat.

(80) "Fugitive emissions" means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

(81) "g" means gram.

(82) "gal" means gallon.

(83) "General fund" is defined by KRS 48.010(15)(a).

(84) "Generator" means a device that produces electricity.

(85) "gr" means grain.

(86) "HCI" means hydrochloric acid.

(87) "Heat input" means the product in MMBTU per unit of time, of the gross calorific value of the fuel, in BTU per lb, and the fuel feed rate into a combustion device, in mass of fuel per unit of time, that:

(a) Does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources; and

(b) Is measured, recorded, and reported to the cabinet.

(88) "HF" means hydrogen fluoride.

(89) "Hg" means mercury.

(90) "High terrain" is defined by 40 C.F.R. 5-1.166(b)(25).

(91) "hr" means hour.

(92) "Hydrocarbon" means an organic compound consisting predominantly of carbon and hydrogen.

(93) "Hydrocarbon combustion flare" means:

(a) A flare used to comply with an applicable New Source Performance Standard (NSPS) or Maximum Achievable Control Technology (MACT) standard, including uses of flares during startup, shutdown, or malfunction permitted under the standard; or

(b) A flare that serves to control emissions of waste streams comprised · 19 predominately of hydrocarbons and containing no more than 230 μg/dscm hydrogen sulfide.

(94) "H_2O" means water.

(95) "H_2S" means hydrogen sulfide.

(96) "H_2S0_4" means sulfuric acid.

(97) "in" means inch.

(98) "Incineration" means the process of igniting and burning solid, semisolid, liquid, or gaseous combustible wastes.

(99) "Industrial boiler or turbine" means a fossil fuel-fired boiler, combustion turbine, or a combined cycle system having a maximum design heat input of 250 MMBTU per hour or more that is not an electric generating unit.

(100) "Innovative control technology" is defined by 40 C.F.R. 51.166(b)(19).

(101) "Intermittent emissions" means emissions of particulate matter into the open air from a process that operates for less than any six (6) consecutive minutes.

(102) "J" means joule.

(103) "Kg" means kilogram.

(104) "l”means liter.

(105) "lb" means pound.

(106) "Legally enforceable" means the cabinet or the U.S. EPA has the authority to enforce a certain restriction.

(107) "Long dry kiln" means a kiln that employs no preheating of the feed and has a dry inlet feed.

(108) "Long wet kiln" means a kiln that employs no preheating of the feed and the inlet feed to the kiln is a slurry.

(109) "Low terrain" means an area other than high terrain.

(110) "Lowest achievable emissions rate" or "LAER" means, for any source;

(a)1, The most stringent emissions limitation that is contained in the Kentucky SIP for the class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that the limitation is not achievable; or

2. The most stringent emissions limitation achieved in practice by the class or category of stationary source;

(b) For a major modification, the lowest achievable emissions rate for the new or modified emissions units at the stationary source; and

(c) An emissions limitation that does not exceed the allowable emissions of an applicable standard established pursuant to 40 C.F.R, Parts 60. 61. or 63.

(111) "m" means meter.

(112) "m3" means cubic meter.

(113) "Major emissions unit" means:

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

(b) Any emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the Clean Air Act. 42 U.S.C. 7401-7671q for nonattainment areas.

(114) "Major modification" means a physical change in or a change in the method of operation of a major stationary source that results in a significant emissions increase and a significant net emissions increase of a regulated NSR pollutant.

(a) A significant emissions increase from any emissions units or net emissions increase at a major stationary source that is significant for volatile organic compounds or nitrogen oxides is considered significant for ozone.

(b) A physical change or change in the method of operation does not include:

1. Routine maintenance, repair, and replacement;
2. Use of alternative fuel or raw material by reason of an order or a natural gas curtailment plan in effect under a federal act:
3. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
4. Use of an alternative fuel or raw material by a stationary source that:

a. The source was capable of accommodating before January 6. 1975. for 401 KAR 51:017, or December 21, 1976, for 401 KAR 51:052; unless the change would be prohibited by a federally enforceable permit condition that was established after January 6, 1975, for 401 KAR 51:017, or December 21, 1976, for 401 KAR 51:052, pursuant to 40 C.F.R. 51.165 or 51.166; or

b. The source is approved to use by a permit issued pursuant to 401 KAR 51:017 or 51:052;

5. An increase in the hours of operation or in the production rate, unless the change is prohibited by any federally enforceable permit condition established after January 6, 1975, for 401 KAR 51:017 or December 21, 1976, for 401 KAR 51:052 pursuant to 40 C.F.R. 52.21; after June 6. 1979, pursuant to 401 KAR

51:015: after September 22, 1982, pursuant to 401 KAR 51:017; or pursuant to 401 KAR 52:020 and 51:016E:
6. A change in ownership at a stationary source;
7. The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, if the project complies with the Kentucky SIP and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated;
8. The installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, if the project does not result in an increase in the potential to emit of a regulated pollutant emitted by the unit on a pollutant-by-pollutant basis; or
9. The reactivation of a very clean coal-fired electric utility steam generating unit.

(c) Instead of this definition, the definition for "PAL major modification", in subsection (175) of this section, is used for a particular regulated NSR pollutant, if the major stationary source is complying with the requirements of 401 KAR 51:017, Section 20, and 401 KAR 51:052, Section 11, for a PAL for that pollutant.

(115)"Major NSR permit" means a permit issued under Kentucky's PSD or NSR program.

(116) "Major source" means a source with a potential emission rate equal to or greater than 100 tons per year of any one (1) of the following pollutants:
particulate matter, sulfur oxides, nitrogen oxides, volatile organic compounds, carbon monoxide, or ODS.

(117) "Major source baseline date" means:

(a) For PM_{10} and sulfur dioxide, January 6, 1975;

(b) For nitrogen dioxide, February 8, 1988; and

(c) For $PM_{2.5}$ October 20, 2010.

(118)"Major stationary source" means:

(a)1. A stationary source of air pollutants that emits, or has the potential to emit 100 tons per year or more of a regulated NSR pollutant, except that:

a. For ozone nonattainment areas: one hundred (100) tons per year or more of volatile organic compounds or nitrogen oxides in a marginal or moderate ozone nonattai11ment area; fifty (50) tons per year or more of volatile organic compounds or nitrogen oxides in a serious ozone nonattainment area; twenty-five (25) tons per year or more of volatile organic compounds or nitrogen oxides in a severe ozone nonattainment area; or ten (10) tons per year or more of Volatile organic compounds or nitrogen oxides in an extreme ozone nonattainment area;

b. Fifty (50) tons per year or more of carbon monoxide in a serious carbon monoxide nonattainment area where stationary sources contribute significantly to carbon monoxide levels; and

c. Seventy (70) tons per year or more of particulate matter (PM_{10}) in a serious PM_{10} nonattainment area; or

2.a. For the PSD program, any of the following stationary sources of air pollutants that emits, or has the potential to emit, 100 tons per year or more of a regulated NSR pollutant: 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 of fossil fuel boilers, 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; and

b. Regardless of the stationary source size specified in clause a. of this subparagraph, a stationary source that emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or

3. Any physical change that will occur at a stationary source not otherwise qualifying under this subsection as a major stationary source, if the change will constitute a major stationary source by itself;

(b) A source that is major for volatile organic compounds or nitrogen oxides is considered major for ozone; and

(c) Fugitive emissions are included only if the source belongs to one (1) of the following categories of stationary sources:

1. Coal cleaning plants with thermal dryers;
2. Kraft pulp mills;
3. Portland cement plants;
4. Primary zinc smelters;
5. Iron and steel mills:
6. Primary aluminum ore reduction plants;
7. Primary copper smelters:
8. Municipal incinerators capable of charging more than 250 tons of refuse per day;
9. Hydrofluoric, sulfuric, or nitric acid plants;
10. Petroleum refineries;
11. Lime plants:
12. Phosphate rock processing plants;
13. Coke oven batteries;
14. Sulfur recovery plants;
15. Carbon black plants (furnace process);
16. Primary lead smelters;
17. Fuel conversion plants;

18. Sinterinq plants;
19. Secondary metal production plants;
20. Chemical process plants;
21. Fossil-fuel boilers, or combination of fossil-fuel boilers, totaling more than 250 million BTUs per hour heat input;
22. Petroleum storage and transfer units with a total storage capacity exceeding 300.000 barrels:
23. Taconite ore processing plants:
24. Glass fiber processing plants;
25. Charcoal production plants;
26. Fossil fuel-fired steam electric plants of more than 250 million BTUs per hour heat input: or
27. Another stationary source category that, as of August 7, 1980, is being regulated under 42 U.S.C. 7411 or 7412.

(119) "Malfunction" means a sudden and infrequent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner that is not caused entirely or in part by poor maintenance, careless operation, or other upset condition or equipment breakdown that is reasonably preventable.

(120) "Mandatory Class I area" means an area identified in 40 C.F.R. Part 81, Subpart D, if the administrator of the U.S. EPA, in consultation with the Secretary of the United States Department of Interior, has determined visibility to be an important value.

(121) "Marginal nonattainment county" or "marginal nonattainment area" means a county or portion of a county designated marginal nonattainment for the national ambient air quality standard for ozone.

(122) "Maximum design heat input" means the ability of a unit to combust a stated maximum amount of fuel per hour on a steady state basis, as determined by the physical design and physical characteristics of the unit.

(123) "Maximum potential hourly heat input" means an hourly heat input used for reporting purposes if a unit lacks certified monitors to report heat input and is:

(a) A value calculated according to 40 C.F.R. Part 75 using the maximum fuel flow rate and the maximum gross calorific value, if the unit intends to use 40 C.F.R. Part 75. Appendix D, to report heat input; or

(b) A value reported· according to 40 C.F.R. Part 75 using the maximum potential flow rate and either the maximum percent $C0_2$ concentration (in percent $C0_2$) or the minimum percent O_2, if the unit intends to use a flow monitor and a diluent gas monitor.

(124) "Maximum potential NOx emission rate" means the emission rate of NOx (in lb per MMBTU) calculated according to 40 C.F.R. Part 75, Appendix E, Section 3, using the maximum potential NOx concentration as defined in 40 C.F.R. Part 75, Appendix A. Section 2, and the maximum percent O_2 or the

minimum percent $C0_2$ under all operating conditions of the unit except for unit startup, shutdown, and malfunction.

(125) "Maximum rated hourly heat input" means a unit specific maximum hourly heat input (MMBTU) that is the higher of the manufacturer's maximum rated hourly heat input or the highest observed hourly heat input.

(126) "μg" means microgram.

(127) "mg" means milligram.

(128) "Mid-kiln firing" means the secondary firing in kilns by injecting solid fuel at an intermediate point in the kiln using a specially designed feed injection mechanism for the purpose of decreasing NOx emissions through:

(a) Burning part of the fuel at a lower temperature: and

(b) Reducing-conditions at the solid waste injection point that may destroy some of the NOx formed upstream in the kiln burning zone.

(129) "min" means minute.

(130) "Minor source baseline date" means:

(a) The earliest date after the trigger date on which a major stationary source or a major modification subject to permit requirements established pursuant to 40 C.F.R. 52.21 or the Kentucky SIP submits a complete application. The trigger date is:

1. August 7, 1977, for PM_{10} and SO_2;

2. February 8, 1988, for NO_2; and

3. October 20, 2011, for $PM_{2.5}$;

(b) For TSP increments, that the originally established date remains in effect to determine the amount of available PM_{10} increments, unless the cabinet rescinds the minor source baseline date pursuant to 40 C.F.R. 51.166(b)(14)(iv); and

(c) A date established for each pollutant for which increments or other
23 equivalent measures have been established if:

1. The area in which the proposed source or modification will construct is designated as attainment or unclassifiable pursuant to 42 U.S.C. 7407 (d)(1)(A)(ii) or (iii) for the pollutant on the date of its complete application pursuant to 401 KAR Chapter 52; and

2. For a major stationary source, the pollutant will be emitted in significant amounts or a significant net emissions increase of the pollutant will occur for a major modification.

(131) "MJ” means megajoules.

(132) "mm" means millimeter.

(133) "MM" means million.

(134) ”mo" means month.

(135) “Moderate nonattainment county" or "moderate nonattainment area" means a county or portion of a county designated moderate nonattainment for the national ambient air quality standard for ozone.

(136) "Modification" means any physical change in. or a change in the method of operation of, an affected facility that:

(a) Increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or that results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted; and

(b) Is not solely:

1. Maintenance, repair, and replacement that the cabinet determines to be routine for a source category considering available information;

2. An increase in production, rate of an affected facility, if that increase can be accomplished without a capital expenditure on that facility:

3. An increase in the hours of operation;

4. Use of an alternative fuel or raw material if, prior to the date a standard becomes applicable to that source type, the affected facility was designed to accommodate that alternative use. A facility is considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change;

5. Conversion to coal required for energy considerations, as specified in 42 U.S.C. 7411(a)(8);

6. The addition or use of a system or device the primary function of which is the reduction of air pollutants, unless an emission control system is removed or replaced by a system that the cabinet determines to be less environmentally beneficial; or

7. The relocation or change in ownership of a source.

(137) "Monitoring device" means the total equipment, required by an applicable administrative regulation in 401 KAR Chapters 50 to 65, used to measure and record, if applicable, process parameters.

(138) "Monitoring system," means a monitoring system that meets the requirements of any applicable administrative regulation in 401 KAR Chapters 50 to 65.

(139) "MWe" means megawatt electrical.

(140) "N_2" means nitrogen.

(141) "Nameplate capacity" means the maximum electrical generating output (in MWe) that a generator can sustain over a specified period of time if not restricted by seasonal or other deratings as measured with United States Department of Energy standards.

(142) "Natural conditions" means those naturally occurring phenomena that reduce visibility as measured in terms of visual range, contrast, or coloration.

(143) "Necessary preconstruction approvals or permits" means those permits or approvals required under the, administrative regulations approved to the Kentucky SIP pursuant to 40 C.F.R. 52.920, and federal air quality control laws and regulations established pursuant to 42 U.S.C. 7401-7671q.

(144) "Net emissions increase" means;

(a) For any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of subparagraphs 1 and 2 of this paragraph exceeds zero:
1. An increase in emissions from a particular physical change or change in method of operation at a stationary source as calculated pursuant to 401 KAR 51:017, Section 1(4), or 401 KAR 51:052; Section 1(2): and

2. Any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases under this paragraph are determined as defined in this section.

(b) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if:

1. For construction that commences prior to January 6, 2002, the change occurs between the date ten (10) years before construction on the change commences and the date that the increase from the change occurs: and

2. For construction that commences on and after January 6, 2002, the change occurs between the date five (5) years before construction on the change commences and the date that the increase from the change occurs.

(c) An increase or decrease in actual emissions is creditable only if:

1. The cabinet or the U.S. EPA has not relied on the change in issuing a permit for the source pursuant to 401 KAR 51:017, 51:052, or 40 C.F.R. 52.21: and

2. The permit is in effect at the time the increase, or decrease in actual emissions from the particular change occurs.

(d) An increase or decrease in actual emissions of sulfur dioxide, particulate matter, or nitrogen oxides that 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. For particulate matter, only PM_{10} emissions are used to evaluate the net emissions increase for PM_{10}.

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

(f) 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;
2. The decrease is enforceable as a practical matter at and after the time that actual construction on the particular change begins: and
3. The decrease has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.

(g) An increase that results from a physical change at a source occurs if the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. A replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

(h) The term, actual emissions, as defined in subsection (2) of this section does not apply in determining creditable increases and decreases.

(145) "New source" means a source, the construction, reconstruction, or modification of which commenced on or after the classification date as defined in the applicable administrative regulation, irrespective of a change in emission rate.

(146) "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide, as measured by test methods specified in the Kentucky SIP.

(147) "ng" means nanograms.

(148) "NO" means nitric oxide.

(149) "NO_2" means nitrogen dioxide.

(150) "Nonattainment major new source review program" or "NSR program" is defined by 40 C.F.R. 51.165(a)(1)(xxx). For purposes of this definition, "administrator" means the U.S. EPA.

(151) "NOx" means nitrogen oxides.

(152) "NOx allowance" is defined by 40 C.F.R. 96.2.

(153) "NOx Allowance Tracking System" or "NATS" is defined by 40 C.F.R. 96.2 For purposes of this definition, "administrator" means the U.S. EPA.

(154) "NOx authorized account representative" is defined by 40 C.F.R. 96.2.

(155) "NOx budget emissions limitation" means, for a NOx budget unit, the tonnage equivalent of the NOx allowances available for compliance deduction for the unit and for a control period under 401 KAR 51:160 adjusted by deductions of sufficient NOx allowances to account for:

(a) Actual utilization under 40 C.F.R. 96.42(e) for the control period;
(b) Excess NOx emissions for a prior control period under 40 C.F.R. 96.54(d);
(c) Withdrawal from the NOx budget program under 40 C.F.R. 96.86; or
(d) A change in regulatory status for a NOx budget opt-in source under 40 C.F.R. 96.87.

(156) "NOx budget opt-in source" means an affected facility that has elected to become a NOx budget unit under the NOx Budget Trading Program and whose NOx budget opt-in permit has been issued and is in effect.

(157) "NOx budget source" is defined by 40 C.F.R. 96.2.

(158) "NOx Budget Trading Program" is defined by 40 C.F.R. 96.2.

(159) "NOx budget unit" means a unit that is subject to the NOx Budget Trading Program emissions limitation under 401 KAR 51:160 or 40 C.F.R. 96.80.

(160) "NOx budget unit operator" means a person who operates, controls, or supervises a NOx budget unit, a NOx budget source, or a unit for which an application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not denied or withdrawn and includes a holding company, utility system, or plant manager of a NOx budget unit or source.

(161) "NOx budget unit owner" means:

(a) A holder of a portion of the legal or equitable title in a NOx budget unit or in a unit for which an application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not denied or withdrawn:

(b) A holder of a leasehold interest in a NOx budget unit or in a unit for which an application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not denied or withdrawn:

(c) A purchaser of power from a NOx budget unit or from a unit for which an application for a NOx budget opt-in permit under 401 KAR51:195 is submitted and not denied or withdrawn under a life-of-the-unit firm power contractual arrangement and unless expressly provided for in a leasehold agreement, does not include a passive lessor, or a person who has an equitable interest through the lessor, whose, rental payments are not based, either directly or indirectly, upon the revenues or income from the NOx budget unit or the unit for which an application for a NOx budget opt-in permit under 401 KAR 51:195 is submitted and not denied or withdrawn: or

(d) For any general account, a person who has an ownership interest with respect to the NOx allowances held in the general account and who is subject to the binding agreement for the NOx authorized account representative to represent that person's ownership.

(162) "O_2." means oxygen.

(163) "O_3" means ozone.

(164) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(165) "Operating" means, for a NOx budget unit, having documented heat input for more than 876 hours in the six (6) months immediately preceding the submission of an application for an initial NOx budget permit.

(166) "Operator" means, for a NOx budget unit, any person who operates, controls, or supervises a NOx budget unit, a NOx budget source, or unit for which an application for a NOx budget opt-in permit is submitted and not denied or withdrawn, and includes any holding company, utility system, or plant manager of the unit or source.

(167) "Opt-in" means to be elected to become a NOx budget unit under the NOx Budget Trading Program through a final NOx budget opt-in permit.
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(168) "Owner", for a NOx budget unit, is defined by 40 C.F.R. 96.2.

(169) "Owner or operator" means a person who owns, leases, operates, controls, or supervises an affected facility or a source of which an affected facility is a part.

(170) "oz" means ounce.

(171) "Ozone depleting potential" or “ODP", means pursuant to 40 C.F.R. Part 82, Subpart A Appendices A and B, the ratio of the total amount of ozone destroyed by a fixed amount of an ozone depleting substance to the amount of ozone destroyed by the same mass of trichlorofluoromethane (CFC-11) in which the ozone depleting potential of CFC-11 is equal to one and zero tenths (1.0).

(172) "Ozone depleting substance" or "ODS" means any chemical compound regulated under 40 C.F.R. Part 82 with decay products, after the photolysis of the ODS by short-wave ultraviolet light, that are able to catalyze the destruction of stratospheric ozone.

(173) "PAL effective date" means:

(a) The date of issuance of the PAL permit; or

(b) For an increased PAL, the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(174) "PAL effective period" means the period beginning with the PAL effective date and ending ten (10) years later.

(175) "PAL major modification" means any physical change in or a change in the method of operation of the PAL source that causes it to emit the PAL pollutant at level equal to or greater than the PAL.

(176) If PAL permit" means the permit issued by the cabinet that establishes a PAL for a major stationary source.

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

(178) "Particulate matter” means a material, except uncombined water that exists in a finely divided form as a liquid or solid measured by a U.S. EPA-approved test method or a test method approved in the Kentucky SIP.

(179) "Particulate matter emissions" means, except as used in 40 C.F.R. Part 60, all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the Kentucky SIP

(180) "Peak load" means the maximum instantaneous operating load.

(181) "Permitted capacity factor" means the annual permitted fuel use divided by the manufacturer's specified maximum fuel consumption multiplied by 8,760 hours per year.

(182) "Person" is defined by KRS 224.01-010(17).

(183) “Plant-wide applicability limitation" or "PAL" means an emission limitation, expressed in tons per year, for a pollutant at a major stationary source, that is enforceable as a practical matter and is established source-wide in accordance with 401 12 KAR 51:017 or 51:052.

(184) "$PM_{2.5}$" means particulate matter with an aerodynamic diameter less than or equal to a nominal two and five-tenths (2.5) micrometers as measured by a reference method in 40 C.F.R. Part 50, Appendix L and designated in accordance with 40 C.F.R. 16 Part 53, or by an equivalent method designated in accordance with 40 C.F.R. Part 53.

(185) "PM_{10}" means particulate matter with an aerodynamic diameter less than or equal to a nominal ten (1O) micrometers as measured by a reference method in 40 C.F.R. Part 50, Appendix J, and designated in accordance with 40 C.F.R. Part 53, or by an equivalent method designated in accordance with 40 C.F.R. Part 53.

(186) "PM_{10} emissions" means finely divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the Kentucky SIP.

(187) "Pollution prevention" is defined by 40 C.F.R. 51.166(b)(38).

(188) "Portland cement" means a hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates.

(189) "Portland cement kiln" means a system, including solid, gaseous or liquid fuel combustion equipment, used to calcine and fuse raw materials, including limestone and clay, to produce Portland cement clinker.

(190) "Potential to emit" or "PTE" means:

(a) The maximum capacity of a stationary source to emit a pollutant under its physical and operational design, in which:

1. A physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, is treated as part of its design if the limitation is enforceable as a practical matter; and

2. This definition does not alter or affect the use of this term for other purposes of the Clean Air Act. 42 U.S.C. 7401-7671q, or the term "capacity factor" as used in the Acid Rain Program.

(b) For the PSD and NSR programs, the maximum capacity of a stationary source to emit a pollutant under

its physical or operational design, in which:

1. A 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, is treated as part of its design if the limitation or the effect it would have on emissions:

a. Is federally enforceable; or
b. For an actuals PAL is federally enforceable or enforceable as a practical matter; and

2. Secondary emissions are not counted.

(191) "ppb" means parts per billion.

(192) "ppm" means parts per million.

(193) "ppm(w/w)" means parts per million (weight by weight).

(194) "Precalciner kiln" means a kiln in which the feed to the kiln system is preheated in cyclone chambers and utilizes a second burner to calcine material in a separate vessel attached to the preheater prior to the final fusion in a kiln that forms clinker.

(195) "Predictive emissions monitoring system" or "PEMS" is defined by 40 C.F.R. 51.166(b)(44).

(196) “Preheater kiln" means a kiln in which the feed to the kiln system is preheated in cyclone chambers prior to the final fusion in a kiln that forms clinker.

(197) "Prevention of Significant Deterioration Program" or "PSD Program" means a major source preconstruction program that has been approved by the U.S. EPA and incorporated into the Kentucky SIP to implement the requirements of 40 C.F.R. 51.166 or 52.21.

(198) "Project" means a physical change in or change in method of operation of an existing major stationary source.

(199) "Projected actual emissions" means:

(a) The maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one (1) of the five (5) years, in a twelve (12) month period, following the date the unit resumes regular operation after the project, or in any one (1) of the ten (10) years following that date, if:

1. The project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR pollutant; and
2. Full utilization of the unit would result in a significant emissions increase or a significant net emissions

increase at the major stationary source; or

(b) The maximum annual rate, in tons per year, at which an emissions unit before beginning actual construction, is projected to emit a regulated NSR 4 pollutant, if the source:

1.a. Considers all relevant information, including historical operational data and the company's own representations of expected and highest projected business activity, filings with the cabinet and the U.S. EPA, and compliance plans under the Kentucky SIP;

b. Includes fugitive emissions and emissions associated, with startups, shutdowns, and malfunctions; and .

c. Excludes, in calculating any increase in emissions that results from a project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive twenty-four (24) month period used to establish the baseline actual emissions and that are also unrelated to the project, including any increased utilization due to product demand growth; or

2. Elects to use the emissions unit's potential to emit, in tons per year, instead of using subparagraph 1 of this paragraph to determine projected actual emissions.

(200) "psia• means pounds per square inch absolute.

(201) "psig" means pounds per square inch gage.

(202) "RACT/BACT/LAER Clearinghouse" or "RBLC" means the U.S. EPA's online collection of previous RACT/BACT/LAER determinations.

(203) "Reactivation of a very clean coal-fired EUSGU" is defined by 40 C.F.R. 51.166(b)(37).

(204) "Reasonable further progress" is defined by 42 U.S.C. 7501(1). For purposes of this definition, "administrator" means the U.S. EPA.

(205) "Reconstruction" means the replacement of components of an existing affected facility to the extent that:

(a) The fixed capital cost of the new components exceeds fifty (50) percent of the fixed capital cost that would be required to construct a comparable entirely new affected facility: and

(b) It is technologically and economically feasible to meet the applicable requirements of 401 KAR Chapters 50 to 65.

(206) "Reference method" means a method of sampling and analyzing for an air pollutant as published in 40 C.F.R. Part 50, Appendices A to N: 40 C.F.R. Part 53: 40 C.F.R. Part 60, Appendices A and B: 40 C.F.R. Part 61. Appendix B: or 40 C.F.R. Part 63, Appendices A to D.

(207) "Regulated NSR pollutant" means:

(a) For 401 KAR 51:017:

1. A pollutant for which a national ambient air quality standard has been promulgated and the following constituents or precursors to such pollutant:

a. Volatile organic compounds and nitrogen oxides are precursors to ozone in all attainment and unclassifiable areas:

b. Sulfur dioxide is a precursor to $PM_{2.5}$ in all attainment and unclassifiable areas:

c. Nitrogen oxides are presumed to be precursors to $PM_{2.5}$ in all attainment and unclassifiable areas unless the Cabinet demonstrates to the EPA Administrator's satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area, are·not a significant contributor to that area's ambient $PM_{2.5}$ concentrations:

d. Volatile organic compounds are presumed not to be precursors to $PM_{2.5}$ in an attainment or unclassifiable area unless the Cabinet demonstrates to the EPA Administrator's satisfaction or EPA demonstrates that emissions of volatile organic compounds from sources in a specific area are a significant contributor to that area's ambient $PM_{2.5}$ concentrations: and

e. $PM_{2.5}$ emissions and PM_{10} emissions include gaseous emissions from a source or activity that condense to form 4 particulate matter at ambient temperatures

(i) On or after January 1, 2011, condensable particulate matter is included in applicability determinations and in establishing emissions limitations for PM2.5 and PM10 in permits issued pursuant to 401 KAR 51:017;

(ii) Compliance with emissions limitations for PM2.5 and PM10 issued prior to January 1, 2011, is not based on condensable particulate matter unless required by the terms and conditions of a permit; and

(iii) Applicability determinations made prior to January 1, 2011, without accounting for condensable particulate matter are not considered in violation of this section;

2. A pollutant subject to a standard promulgated under 42 U.S.C. 7411;

3. A pollutant subject to a standard promulgated under or established by 42 U.S.C. 7671 to 7671q; or

4. A pollutant that otherwise is subject to regulation, as defined in subsection (231) of this section, under 42 U.S.C. 7401 to 7671q, except that any hazardous air pollutant (HAP) listed in 42 U.S.C. 7412 or added to the list pursuant to 42 U.S.C 7412(b)(2), that has not been delisted pursuant to 42 U.S.C. 7412(b)(3), is not a regulated NSR pollutant unless the listed HAP is also regulated as a constituent or precursor of a general pollutant listed under 42 U.S.C. 7408; or

(b) For 401 KAR 51:052:

1. Nitrogen oxides or volatile organic compounds; or

2. A pollutant for which a national ambient air quality standard has been promulgated and the following constituents or precursors to such pollutant:

a. Volatile organic compounds and nitrogen oxides are precursors to ozone in all ozone nonattainment areas;

b. Sulfur dioxide is a precursor to $PM_{2.5}$ in all $PM_{2.5}$ nonattainment areas;

c. Nitrogen oxides are presumed to be precursors to $PM_{2.5}$ in all $PM_{2.5}$ nonattainment areas unless the Cabinet demonstrates to the EPA administrator's satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area are not a significant contributor to that area's ambient $PM_{2.5}$ concentrations:

d. Volatile organic compounds and ammonia are presumed not to be precursors to $PM_{2.5}$ in a $PM_{2.5}$ nonattainment area unless the Cabinet demonstrates to the EPA Administrator's satisfaction or EPA demonstrates that emissions of volatile organic compounds or ammonia from sources in a specific area are a significant contributor to that area's ambient $PM_{2.5}$ concentrations; and

e. $PM_{2.5}$ emissions and PM_{10} emissions include gaseous emissions from a source or activity that condense to form particulate matter at ambient temperatures;

(i) On or after January 1. 2011, condensable particulate matter is included in applicability determinations and in establishing emissions limitations for $PM_{2.5}$ and PM10 in permits issued pursuant to 401 KAR 51:052;

(ii) Compliance with emissions limitations for $PM_{2.5}$ and PM10 issued prior to January 1, 2011, is not based on condensable particulate matter unless required by the terms and conditions of a permit; and

(iii) Applicability determinations made prior to January 1, 2011, without accounting for condensable particulate matter are not considered in violation of this section.

(208) "Replacement unit" means an emissions unit that does not generate creditable emissions reductions by shutting down the existing emissions unit that is replaced, and that:

(a)1. Is a reconstructed unit within the meaning of 40 C.F.R. 60.15(b)(1) or that completely takes the place of an existing emissions unit;

2. Is identical to or functionally equivalent to the replaced emissions unit; and

3. Does not alter the basic design parameters of the process unit.

(b) Replaces a unit that:

1. Is permanently removed from the major stationary source, is otherwise permanently disabled, or is prohibited from operating by a permit that is enforceable as a practical matter; and

2. If brought back into operation, is considered a new emissions unit

(209) "Repowering" is defined by 40 C.F.R. 51.166(b)(36).

(210) "Responsible official" means:

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

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25.000,000 in second quarter 1980 dollars; or

2. The delegation of authority to the representative is approved in advance by the cabinet pursuant to this subsection;

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

(c) For a municipality, state, federal, or other public agency, a principal executive officer or ranking elected official. The principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operation of a principal geographic unit of the agency; or

(d) For the acid rain portion of a permit for an affected source, the designated representative.

(211) "Run" means the net period of time, either intermittent or continuous within the limits of good engineering practice, when an emission sample is
collected.

(212) "S" means at standard conditions.

(213) "sec" means second.

(214) "Secondary emissions" means emissions that:

(a) Occur as a result of the construction or operation of a major stationary source or major modification,

and do not come from the major stationary source or major modification itself;

(b) Are specific, well defined, quantifiable, and impact the same general area as the stationary source modification that causes the secondary emissions:

(c) Include emissions from an offsite support facility that 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: and

(d) Do not include emissions that come directly from a mobile source, including emissions from the tailpipe of a motor vehicle, a train, or vessel.

(215) "Serious nonattainment county" or "serious nonattainment area" means a county or portion of a county designated serious nonattainment for the national ambient air quality standard for ozone.

(216) "Severe nonattainment county" or "severe nonattainment area" means a county or portion of a county designated severe nonattainment for the national ambient air quality standard for ozone.

(217) "Shutdown" means the cessation of an operation.

(218) "Significant" means:

(a) For 401 KAR 51:017, in reference to a net emissions increase or the potential of a source to emit any of the pollutants listed in the following table, a rate of emissions that would equal or exceed a corresponding rate listed in the table:

POLLUTANT	EMISSIONS RATE
Carbon monoxide	100 tons per year (tpy)
Ozone depleting substance	100 tpy
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
$PM_{2.5}$	10 tpy direct, 40 tpy of sulfur dioxide or nitrogen oxides*
PM_{10}	15 tpy
Particulate matter	25 tpy
Ozone	40 tpy of volatile organic Compounds or nitrogen oxides
Lead	0.6 tpy
Fluorides	3 tpy
Sulfuric acid mist	7 tpy
Hydrogen sulfide (H_2S)	10 tpy
Total reduced sulfur (including H_2S)	10 tpy

Reduced sulfur compounds (including H_2S)	10 tpy
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	3.2×10^{-6} megagrams per year (Mg/y) (3.5×10^{-6} tpy)
Municipal waste combustor metal (measured as particulate matter)	14 Mg/y (15 tpy)
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	36 Mg/y (40 tpy)
Municipal solid waste landfill em1ss1ons (measured as nonmethane organic compounds)	45 Mg/y (50 tpy)

(b) For 401 KAR 51 :017. in reference to a net emissions increase or the potential of a source to emit a regulated NSR pollutant that is not listed in the table in paragraph (a) of this subsection, any emissions rate;

(c) For 401 KAR 51:017, in reference to an emissions rate or a net emissions increase associated with a major stationary source or major modification, that is to be constructed within ten (10) kilometers of a Class I area, an impact on that area equal to or greater than one (11 uglm3 over a twenty-four (24) hour average;

(d) For 401 KAR 51:052, in reference to a net emissions increase or the potential of a source to emit any of the pollutants listed in the following table, a rate of emissions that would equal or exceed a corresponding rate listed in the table:

POLLUTANT	EMISSIONS RATE
Carbon monoxide	100 tons per year (tpy)
Ozone depleting substance	100 tpy
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
$PM_{2.5}$	10 tpy direct, 40 tpy of sulfur dioxide or nitrogen oxides*
PM_{10}	15 tpy
Ozone	40 tpy of volatile organic Compounds or nitrogen oxides
Lead	0.6 tpy

(e) For 401 KAR 51:052, with the exception of the significant emissions rate for ozone in this subsection, significant means, in reference to an emissions increase or net emissions increase, a rate of emissions that exceeds the following:

1. Twenty-five (25) tons per year of volatile organic compounds or nitrogen oxides in a serious or severe ozone nonattainment area: or

2. An increase in actual emissions of volatile organic compounds or nitrogen oxides in an extreme ozone nonattainment area; or

(f) For 401 KAR 51:052, with the exception of the significant emissions rate for carbon monoxide in this subsection, significant means, in reference to an emissions increase or net emissions increase, a rate of emissions of carbon monoxide that equals or exceeds fifty (50) tons per year in a serious nonattainment area for carbon monoxide in which a stationary source contributes significantly to carbon monoxide levels.

(219) "Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is equal to or greater than the emission level that is significant for that pollutant.

(220) "Significant emissions unit" means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount equal to or greater than the applicable significant level as defined in subsection (218) of this section or in 42 U.S.C. 7401 to 7671q, whichever is lower for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit.

(221) "Small emissions unit" means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the PAL pollutant's applicable significant level as defined in subsection (218) of this section; or in 42 U.S.C. 7401 to 7671g, whichever is lower.

(222) "S02" means sulfur dioxide.

(223) "Source" means one (1) or more affected facilities contained within a given contiguous property line, which means the property is separated only by a public thoroughfare, stream, or other right of way.

(224) "sq" means square.

(225) "Stack or chimney” means 'a flue, conduit, or duct arranged to conduct emissions to the atmosphere.

(226) "Standard" means an emission standard, a standard of performance, or an ambient air quality standard as promulgated in 401 KAR Chapters 50 to 65 or the emission control requirements necessary to comply with 401 KAR Chapter 51.

(227) "Standard conditions" means:

(a) For source measurements, twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) and a pressure of 760 mm Hg (29.92 in. of Hg); or

(b) For air quality determinations, twenty-five (25) degrees Celsius (seventy-seven (77) degrees Fahrenheit) and a reference pressure of 760 mm Hg (29.92 in. of Hg).

(228) "Start-up" or "startup" means the setting in operation of an affected facility.

(229) "State implementation plan" or "SIP" means the most recently prepared plan or revision required by 42 U.S.C. 7410 that has been approved by the U.S. EPA.

(230) "Stationary source" means a building, structure, facility, or installation that emits or has the potential to emit a regulated NSR pollutant.

(231) "Subject to regulation" is defined by 40 C.F.R. 51.166(b)(48)

(232) "Submit" means to send or transmit a document, information, or correspondence in accordance with an applicable requirement.

(233) "TAPPI" means Technical Association of the Pulp and Paper Industry.

(234) "Temporary clean coal technology demonstration project" is defined by 40 C.F.R. 51.166(b)(35).

(235) "Ton" or "tonnage", for a NOx budget source, means a short ton or 2,000 pounds. For determining compliance with the NOx budget emissions limitation, total tons for a control period is calculated as the sum of all recorded hourly emissions, or the tonnage equivalent of the recorded hourly emissions rates, in accordance with 40 C.F.R. Part 96. Subpart H with any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal one (1) ton and any fraction of a ton less than 0.50 ton deemed to equal zero tons.

(236) "Total suspended particulates" or "TSP" means particulate matter as measured by the method described in 40 C.F.R. Part 50. Appendix B.

(237) "tpy" means tons per year.

(238) "TSS" means total suspended solids.

(239) "Uncombined water" means water that can be separated from a compound by ordinary physical means and that is not bound to a compound by internal molecular forces.

(240) "Unit" means a fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system.

(241) "Urban county" means a county that is a part of an urbanized area with a population greater than 200,000 based upon the 1980 census. If a portion of a county is a part of an urbanized area, then the entire county is classified as urban for 401 KAR Chapters 50 to 65.

(242) "Urbanized area" means an area defined by the U.S. Department of Commerce, Bureau of Census.

(243) "U.S. EPA" means the United States Environmental Protection Agency.

(244) "UTM)' means Universal Transverse Mercator.

(245) 'Visibility impairment" is defined by 40 C.F.R. 51.301.

(246) 'Volatile organic compound" or "VOC" is defined by 40 C.F.R. 51.100(s).

(247) "yd" means yard.

(248) "Significant" means:

(a) For 401 KAR 51:017, in reference to a net emissions increase or the potential of a source to emit any of the pollutants listed in the following table. a rate of emissions that would equal or exceed a corresponding rate listed in the table:

POLLUTANT	EMISSIONS RATE
Carbon monoxide	100 tons per year (tpy)
Ozone depleting substance	100 tpy
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
Particulate matter	25 tpy of particulate matter emissions
	15 tpy of PM_{10} emissions
Ozone	40 tpy of volatile organic Compounds or nitrogen oxides
Lead	0.6 tpy
Fluorides	3 tpy
Sulfuric acid mist	7 tpy
Hydrogen sulfide (H_2S)	10 tpy
Total reduced sulfur (including H_2S)	10 tpy
Reduced sulfur compounds (including H_2S)	10 tpy
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	3.2×10^{-6} megagrams per year (Mg/y) (3.5×10^{-6} tpy)
Municipal waste combustor metal (measured as particulate matter)	14 Mg/y (15 tpy)
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	36 Mg/y (40 tpy)
Municipal solid waste landfill em1ss1ons (measured as nonmethane organic compounds)	35 Mg/y (50 tpy)

(b) For 401 KAR 51:017, in reference to a net emissions increase or the potential of a source to emit a regulated NSR pollutant that is not listed in the table in paragraph (a) of this subsection, any emissions rate.

(c) For 401 KAR 51:017, in reference to an emissions rate or a net emissions increase associated with a major stationary source or major modification, that is to be constructed within ten (10) kilometers of a Class I area, an impact on that area equal to or greater than one (1)? g/m^3 over a twenty-four (24) hour average.

(d) For 401 KAR 51:052, in reference to a net emissions increase or the potential of a source to emit any of the pollutants listed in the following table, a rate of emissions that would equal or exceed a corresponding rate listed in the table:

POLLUTANT	EMISSIONS RATE
Carbon monoxide	100 tons per year (tpy)
Ozone depleting substance	100 tpy
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
Ozone	40 tpy of volatile organic Compounds or nitrogen oxides
Lead	0.6 tpy

(e) For 401 KAR 51:052, with the exception of the significant emissions rate for ozone in this subsection, significant means, in reference to an emissions increase or net emissions increase, a rate of emissions that exceeds the following:

1. Twenty-five (25) tons per year of volatile organic compounds or nitrogen oxides in a serious or severe ozone nonattainment area; or

Section 2. Incorporation by Reference. (1) "North American Industry Classification System", 2007, as published by the Office of Management and Budget is incorporated by reference.

(2) "Standard Industrial Classification Manual," 1987, as published by the Office of Management and Budget: and

(3) This material may be inspected, copied or obtained, subject to applicable copyright law, at the following main and regional offices of the Kentucky Division for Air Quality during the normal working hours of 8 a.m. to 4:30 p.m., local time:

(a) Kentucky Division for Air Quality, 200 Fair Oaks Lane, 1st floor, Frankfort, Kentucky 40601-1403, (502) 564-3999;

(b) Ashland Regional Office, 1550 Wolohan Drive, Suite 1, Ashland, Kentucky 41102, (606) 929-5285:

(c) Bowling Green Regional Office, 1508 Westen Avenue Bowling Green, Kentucky 42104, (270) 746-7475:

(d) Florence Regional Office 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (8591 525-4923:

(e) Frankfort Regional Office, 200 Fair Oaks Lane, Third Floor, Frankfort, Kentucky 40601. (502) 564-3358;

(f) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard. Kentucky 41701, (606) 435-6022:

(g) London Regional Office, 875 S. Main Street, London, Kentucky 40741. (606) 878-0157:

(h) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro. Kentucky 42303, (270) 687-7304:

(i) Paducah Regional Office, 4500 Clarks River Road, Paducah. Kentucky 42003, (270) 898-8468: and

(4) The Standard Industrial Classification Manual is also available under Order No. PB 87-100012 from the National Technical Information Service. 5285 Port Royal Road, Springfield. Virginia 22161, phone (703) 487-4650.

(18 Ky.R. 2737; Am. 2930; 3335; eff. 6-24-92; 21 Ky.R. 1757; 2137; eff. 4-6-95; 22 Ky.R. 1691; 2014; eff. 6-6-96; 25 Ky.R. 1442; eff. 4-14-99; 27 Ky.R. 2557; 3270; 38 Ky.R. 367; eff. 8-15-2001; 29 Ky.R.538; 1600; eff. 12-18-02.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	OCT 20, 1992	JUN 23, 1994	59 FR 32343
1st Revision	MAY 04, 1995	JUN 13, 1995	60 FR 31087
2nd Revision	JUN 19, 1996	JAN 21, 1997	62 FR 2916
3rd Revision	JAN 31, 2002	APR 11, 2002	67 FR 17624
4th Revision	FEB 28, 2003	JUN 24, 2003	68 FR 37418
5th Revision	SEP 2, 2004	JUL 11, 2006	71 FR 38990
6th Revision	DEC 14, 2006	SEP 13, 2007	72 FR 52282
7th Revision	FEB 4, 2010	SEP 15, 2010	75 FR 55988
8th Revision	JAN 31, 2013	NOV 3. 2014	79 FR 65143

401 KAR 51:005. Purpose and general provisions.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection Division for Air Quality

Relates to: KRS 224.033
Pursuant to: KRS 13.082, 224.033
Necessity and Function: KRS 224.033 requires the Cabinet for Natural Resources and Environmental Protection to prescribe regulations for the prevention, abatement, and control of air pollution. This regulation establishes the general provisions as related to new sources with respect to the prevention of significant deterioration of air quality and construction of stationary sources impacting on non-attainment areas.

Section 1. Purpose. The purpose of this chapter is:

(1) To prevent the significant deterioration of air quality in areas of Commonwealth of Kentucky where the air quality is better than the ambient air quality standards contained in 401 KAR 53:010; and

(2) To provide conditions for the construction of new or modified sources which would impact on non-attainment areas in order that major new or major modified sources will not exacerbate existing violations of the ambient air quality standards.

Section 2. General Provisions.

(l) Performance tests. The owner or operator of an affected facility subject to this chapter shall be subject to the provisions of 401 KAR 59:005, Section 2.

(2) Notification and record keeping. The owner or operator of an affected facility subject to this chapter shall be subject to the provisions of 401 KAR 59:005, Section 3.

(3) Monitoring. The cabinet may require the owner or operator of an affected facility subject to this chapter to install, calibrate, maintain and operate continuous emission monitoring system. All such continuous emission monitoring systems shall be subject to the provisions of 40l KAR 59:005, Section 4, and other provisions as the cabinet deems necessary.

Effective Date: June 6, 1979

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JUN 29, 1979	JUL 12, 1982	47 FR 30059

401 KAR 51:010. Attainment status designations.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection
Division for Air Quality

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120, 40 CFR 81:318, 42 USC 7401-7626, 42 USC 7407, 7501-7515, 7601, 40 CFR -81,

STATUTORY AUTHORITY: KRS 224.10-100, 42 USC 7401-7626

NECESSITY AND FUNCTION: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation designates the status of all areas of the Commonwealth of Kentucky with regard to attainment of the ambient air quality standards.

Section 1. Definitions.

(1) "Rest of State" as used in Sections 4 through 7 of this administrative regulation means the remainder of the state has been designated and identified on a county by county basis.

(2) "Statewide" as used in Section 8 of this administrative regulation means the entire state has been designated on a county by county basis.

(3) "Road" as used in Section 2(3) of this administrative regulation means a Kentucky route, a county road, a lane, a road, or a U.S. route, highway, or interstate.

Section 2. Attainment Status Designations.

(1) The attainment status of areas of the Commonwealth of Kentucky with respect to the ambient air quality standards for sulfur dioxide, carbon monoxide, ozone, and nitrogen oxides is listed in Sections 5 through 8 of this administrative regulation. The attainment status of areas of the Commonwealth of Kentucky with respect to total suspended particulates is listed in Section 3 of this administrative regulation.

(2) Within sixty (60) days of revision by the U.S. EPA of a national ambient air quality standard, the cabinet shall review applicable data and submit to the U.S. EPA a revision to the attainment nonattainment list pursuant to 42 USC 7407(d)(1).

(3) A road, junction or intersection of two (2) or more roads as used in Section 7 of this administrative regulation that defines a nonattainment boundary for an area which is a portion of a county designated as nonattainment for ozone for any classification except marginal shall include as nonattainment an area extending 750 feet from the center of the road, junction, or intersection.

Section 3. Attainment Timetable. Primary and secondary ambient air quality standards shall be attained as expeditiously as practicable.

Section 4. Attainment Status Designations For Total Suspended Particulates.

Designated Areas	Does Not Meet Primary Standards	Does Not Meet Secondary Standard	Better Than Standards	Cannot Be Classified
Bell County			X	
Boyd County				X
That portion of Bullitt County in Shepherdsville			X	
That portion of Campbell County in Newport			X	
That portion of Daviess County in Owensboro bordered by the Ohio River on the north, by Frederica Street projected to the river on the west,by Fourth Street and U.S.60 on the south and by the Beltline (KY 212) projected to the river on the east				X
That portion of Henderson County in Henderson				X
Jefferson County				X
That portion of Lawrence County in Louisa				X
McCracken County			X	
Marshall County			X	
That portion of Madison County in Richmond				X
Muhlenberg County			X	
That portion of Perry County in Hazard				X
That portion of Pike County in Pikeville				X

That portion of Whitley County in Corbin			X	
Rest of State			X	

Section 5. Attainment Status Designations for Sulfur Dioxide.

Designated Areas	Does Not Meet Primary Standards	Does Not Meet Secondary Standards	Better Than Standards
That portion of Boyd County south of the Northern UTM line 4251Km	X	X	
Muhlenberg County		X	
Rest of State			X

Section 6. Attainment Status Designations for Carbon Monoxide.

Designated Areas	Does Not Meet Primary Standards	Cannot Be Classified or Better Than Standards
Jefferson County		X
Rest of State		X

Section 7. Attainment Status Designations for Ozone.

Designated Areas	Moderate	Marginal	Cannot Be Classified or Better Than Standards
Boone County	X		
Boyd County			X

That portion of Bullitt County within the boundaries described as follows:Beginning at the intersection of KY 1020 and the Jefferson-Bullitt County line proceeding to the east along the county line to the intersection of County Road 567 and the Jefferson-Bullitt County line;proceeding south on County Road 567 to the junction with KY 1116 (also known as Zoneton Road);proceeding to the south on KY 1116 to the junction with Hebron Lane; proceeding to the south on Hebron Lane to Cedar Creek;proceeding south on Cedar Creek to the confluence of Floyds Fork turning southeast along a creek that meets KY 44 at Stallings Cemetery; proceeding west along KY 44 to the eastern most point in the Shepherdsville city limits;proceeding south along the Shepherdsville city limits to the Salt River and west to a point across the river from Mooney Lane;proceeding south along Mooney Lane to the junction of KY 480; proceeding west on KY 480 to the junction with KY 2237;proceeding south on KY 2237 to the junction with KY 61 and proceeding north on KY 61 to the junction with KY 1494;proceeding south on KY 1494 to the junction with the perimeter of the Fort Knox Military Reservation;proceeding north along the military reservation perimeter to Castleman Branch Road;proceeding north on Castleman Branch Road to KY 44; proceeding a very short distance west on KY 44 to a junction with KY 2723; proceeding north on KY 2723 to the junction of Chillicoop Road;proceeding northeast on Chillicoop Road to the junction of KY 2673;proceeding north on KY 2673 to the junction of KY 1020; proceeding north on KY 1020 to the beginning.	X		
Caldwell County			X
Calloway County			X
Campbell County	X		
Christian County			X

Fayette County			X
That portion of Greenup County within the boundaries described as follows: Beginning at a point where the Ohio River meets the Greenup-Boyd County line; proceeding southwest along the Greenup-Boyd County line to the junction of the East Fork of the Little Sandy River and the Greenup-Boyd County line; proceeding north and west along the East fork of the Little Sandy River to the confluence of the Little Sandy River; proceeding north along the Little Sandy River to the confluence of the Ohio River; proceeding east along the Ohio River to the beginning.			X
Jefferson County	X		
Kenton	X		
That portion of Oldham County within the boundaries described as follows:Beginning at the intersection of the Oldham-Jefferson County line with the southbound lane of Interstate 71;proceeding to the northeast along the southbound lane of Interstate 71 to the intersection of KY 329 and the southbound lane of Interstate 71;proceeding to the northwest on KY 329 to the intersection of Zaring Road and KY 329;proceeding to the east-northeast on Zaring Road to the junction of Cedar Point Road and Zaring Road;proceeding to the north-northeast on Cedar Point Road to the junction of KY 393 and Cedar Point Road;proceeding to the south-southeast on KY 393 to the junction of the access road on the north side of Reformatory Lake and the Reformatory;proceeding to the east-northeast on the access road to the junction with Dawkins Lane and the access road;proceeding to follow an electric power line east-northeast across from the junction of County Road 746 and Dawkins Lane to the east-northeast across KY 53 on to the LaGrange Water Filtration Plant;	X		
proceeding on to the east-southeast along the power line then south across Fort Pickens Road to			

a power substation on KY 146;proceeding along the power line south across KY 146 and the Seaboard System Railroad track to adjoin the incorporated city limits of LaGrange;then proceeding east then south along the LaGrange city limits to a point abutting the north side of KY 712;proceeding east-southeast on KY 712 to the junction of Massie School Road and KY 712; proceeding to the south-southwest on Massie School Road to the intersection of Massie School Road and Zale Smith Road;proceeding northwest on Zale Smith Road to the junction of KY 53 and Zale Smith Road;proceeding on KY 53 to the north-northwest to the junction of new Moody Lane and KY 53; proceeding on new Moody Lane to the south-southwest until meeting the city limits of LaGrange;then briefly proceeding north following the LaGrange city limits to the intersection of the northbound lane of Interstate 71 and the LaGrange city limits; proceeding southwest on the northbound lane of Interstate 71 until intersecting with the north fork of Currys Fork;proceeding south-southwest beyond the confluence of Currys Fork to the south-southwest beyond the confluence of Floyds Fork continuing on to the Oldham-Jefferson County line; proceeding northwest along the Oldham-Jefferson County line to the beginning.			
Trigg County			X
Rest of State			X

Section 8. Attainment Status Designations for Nitrogen Oxides.

Designated Area	Does Not Meet Primary Standards	Cannot Be Classified or Better Than Standards
Statewide		X

Effective Date: November 12, 1997

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JUN 29, 1979	JAN 25, 1980	45 FR 6092
1st Revision	JUN 24, 1987	FEB 28, 1989	54 FR 8322
2nd Revision	JUL 07, 1988	FEB 07, 1990	55 FR 4169
3rd Revision	FEB 17, 1993	JUN 23, 1994	54 FR 32343
4th Revision	DEC 19, 1997	JUL 24, 1998	63 FR 39739

401 KAR 51:017. Prevention of significant deterioration of air quality.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection Division for Air Quality

RELATES TO: KRS 224.10-100; 40 CFR 51 Subpart I, Appendix S, Section IV, Part 51, Appendix W, 51.166, 52.21, 52.26. 53. 58 Appendix A, 60, 61, 63, 70.6,, 81.318, 81 Subpart D; 42 USC 7401-7671q,,

STATUTORY AUTHORITY: KRS 224.10-100; 40 CFR 51.166, 52.21, 42 USC 7401-7671q,

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the cabinet to promulgate regulations for the prevention, abatement and control of air pollution. This administrative regulation provides for the prevention of significant deterioration of ambient air quality. The provisions of this administrative regulation are not more stringent than the corresponding federal requirements.

Section 1.

Applicability. (1) This administrative regulation shall apply to the construction of a new major stationary source or a project at an existing major stationary source that commences construction after September 22, 1982, and locates in an area designated attainment or unclassifiable under 42 U.S.C. 7407(d)(1)(A)(ii) and (iii).

(2) Except as otherwise provided in this administrative regulation, the provisions of Sections 8 to 16 of this administrative regulation shall apply to the construction of a new major stationary source or a major modification of an existing major stationary source.

(3) The owner or operator of a new major stationary source or major modification, which is subject to the requirements of Sections 8 to 16 of this administrative regulation, shall not begin actual construction without a proposed permit or proposed permit revision issued under 401 KAR 52:020 stating that the major stationary source or major modification shall meet those requirements.

(4) Applicability tests for projects. Except as provided in subsection (5) or (6) of this section a project shall be a major modification for a regulated NSR pollutant only if the project causes a significant emissions increase and a significant net emissions increase as provided in paragraphs (a) and (b) of this subsection.

(a) Prior to beginning actual construction, the owner or operator shall first determine if a significant emissions increase will occur for the applicable type of unit being constructed according to subparagraphs 1 to 3 of this paragraph.

1. Actual-to-projected actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant shall be projected to occur if the sum of the difference between the projected actual emissions and the baseline actual emissions for each existing

emissions unit equals or exceeds the significant amount for that pollutant.

2. Actual-to-potential test for projects that involve only construction of new emissions units. A significant emissions increase of a regulated NSR pollutant shall be projected to occur if the sum of the potential to emit from each new emissions unit following completion of the project equals or exceeds the significant amount for that pollutant.

3. Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant shall be projected to occur if the sum of the emissions increases for each emissions unit, using a method specified in subparagraphs 1 and 2 of this paragraph as applicable for each emissions unit, equals or exceeds the significant amount for that pollutant.

(b) Prior to beginning actual construction and after completing the applicable procedure established in paragraph (a) of the subsection, the owner or operator shall determine for each regulated NSR pollutant if a significant net emissions increase will occur pursuant to 401 51:001, Section 1(144) and (218).

(5) For a plant-wide applicability limit (PAL) for a regulated NSR pollutant at a major stationary source, the owner or operator of the major stationary source shall comply with the applicable requirements of Section 23 of this administrative regulation.

Section 2. Ambient Air Increments. (1) In areas designated as Class I or II, increases in pollutant concentration over the baseline concentration shall be limited to the following levels:

POLLUTANT	Maximum Allowable Increase (Micrograms per cubic meter)
Class I	
Particulate Matter:	
$PM_{2.5}$ annual arithmetic mean	1
$PM_{2.5}$ 24-hour maximum	2
PM_{10} annual arithmetic mean	4
PM_{10} 24-hour maximum	8
Sulfur Dioxide:	
Annual arithmetic mean	2
24-hour maximum	5
3-hour maximum	25
Nitrogen Dioxide:	
Annual arithmetic mean	2.5
Class II	
Particulate Matter:	
$PM_{2.5}$ annual arithmetic mean	4
$PM_{2.5}$ 24-hour maximum	9
PM_{10} annual arithmetic mean	17
PM_{10} 24-hour maximum	30

Sulfur Dioxide:	
Annual arithmetic mean	20
24-hour maximum	91
3-hour maximum	512
Nitrogen Dioxide:	
Annual arithmetic mean	25

(2) 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.

Section 3. Ambient Air Ceilings. The concentration of a regulated NSR pollutant shall not exceed the concentration allowed under the national secondary ambient air quality standard or under the national primary ambient air quality standard, whichever concentration is lower for the pollutant for a period of exposure.

Section 4. Restrictions on Area Classifications. (1) The following areas, which were in existence on August 7, 1977, shall be Class I areas and shall not be redesignated:

(a) International parks;

(b) National wilderness areas and national memorial parks that exceed 5,000 acres in size; and

(c) National parks that exceed 6,000 acres in size.

(2) Any other area, unless otherwise specified in the legislation creating the area, shall be designated Class II but may be redesignated as provided in 40 CFR 51.166(g).

(3) The visibility protection requirements of this administrative regulation shall apply only to sources that may impact a mandatory Class I federal area.

(4) The following areas may be redesignated only as Class I or II:

(a) An area that as of August 7, 1977, exceeded 10,000 acres in size and was a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore; and

(b) A national park or national wilderness area established after August 7, 1977, which exceeds 10,000 acres in size.

Section 5. Exclusions from Increment Consumption.

(1) Pursuant to notice and opportunity for at least one (1) public hearing to be held in accordance with procedures established in 401 KAR 50:035, the cabinet may exclude the following concentrations in determining compliance with a maximum allowable increase:

(a) Concentrations attributable to the increase in emissions from stationary sources that have 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 these sources before the effective date of the order;

(b) Concentrations attributable to the increase in emissions from sources that 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 those sources before the effective date of the plan;

(c) Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources; and

(d) Concentrations attributable to the temporary increase in emissions of sulfur dioxide, particulate matter, or nitrogen oxides from stationary sources affected by SIP revisions approved by the Administrator of the U.S. EPA as meeting the criteria established in subsection (3) of this section.

(2)(a) Exclusion of concentrations shall not apply more than five (5) years after the effective date of the order to which subsection (1)(a) of this section refers or the plan to which subsection (1)(b) of this section refers, whichever is applicable.

(b) If both an order and plan are applicable, an exclusion shall apply more than five (5) years after the later of the two (2) effective dates.

(3) For excluding concentrations pursuant to subsection (1)(d) of this section::

(a) The time over which the temporary emissions increase of sulfur dioxide, particulate matter, or nitrogen oxides would occur shall be specified and shall not exceed two (2) years in duration unless a longer time is approved by the U.S. EPA;

(b) The time period for excluding certain contributions in accordance with paragraph (a) of this subsection shall not be renewable;

(c) An emissions increase from a stationary source shall not occur that will:

1. Impact a Class I area or an area in which an applicable increment is known to be violated; or

2. Cause or contribute to the violation of a national ambient air quality standard; and

(d) Limitations shall be in effect at the end of the time period established in paragraph (a) of this subsection which ensure that the emissions levels from stationary sources affected by the SIP revision shall not exceed the levels occurring from those sources before the revision was approved.

Section 6. Stack Heights.

(1) The degree of emissions limitation required for control of an air pollutant under this administrative regulation shall not be affected by:

(a) So much of the stack height of a source as exceeds good engineering practice; or

(b) Another dispersion technique.

(2) Subsection (1) of this section shall not apply to stack heights in existence before December 31, 1970, or to dispersion techniques implemented before then.

Section 7. Exemptions. (1) Sections 8 to 16 of this administrative regulation shall not apply to a particular major stationary source or major modification if:

(a) The owner or operator:

1. Obtained the necessary federal, state, and local preconstruction approvals effective before September 22, 1982;

2. Commenced construction before September 22, 1982; and

3. Did not discontinue construction for a period of eighteen (18) months or more.

(b)1. The major stationary source is a nonprofit health institution, a nonprofit educational institution, or a major modification at such an institution; and

2. The Governor of the Commonwealth of Kentucky requests that it be exempt from those requirements.

(c) The source or modification is 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:

1. Coal cleaning plants,with thermal dryers;
2. Kraft pulp mills;
3. Portland cement plants;
4. Primary zinc smelters;
5. Iron and steel mills;
6. Primary aluminum ore reduction plants;
7. Primary copper smelters;
8. Municipal incinerators capable of charging more than 250 tons of refuse per day;
9. Hydrofluoric, sulfuric, or nitric acid plants;
10. Petroleum refineries;
11. Lime plants;
12. Phosphate rock processing plants;
13. Coke oven batteries;
14. Sulfur recovery plants;
15. Carbon black plants, furnace process;
16. Primary lead smelters;

17. Fuel conversion plants;
18. Sintering plants;
19. Secondary metal production plants;
20. Chemical process plants;
21. Fossil-fuel boilers, or combination of fossil-fuel boilers, totaling more than 250 million BTUs per hour heat input;
22. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
23. Taconite ore processing plants;
24. Glass fiber processing plants;
25. Charcoal production plants;
26. Fossil fuel-fired steam electric plants of more than 250 million BTUs per hour heat input; or
27. Another stationary source category that, as of August 7, 1980, is being regulated under 42 USC 7411 or 7412.

(d) The source or modification is a portable stationary source that has previously received a permit under this administrative regulation; and

1. The owner or operator proposes to relocate the source, and the emissions of the source at the new location will be temporary;

2. The emissions from the source will not exceed its allowable emissions;

3. The emissions from the source will not impact a Class I area or an area where an applicable increment is known to be violated; and

4.a. Reasonable notice is given to the cabinet prior to the relocation identifying the proposed new location and the probable duration of operation at the new location.

b. Notice shall be given to the cabinet not less than ten (10) days in advance of the proposed relocation unless a different time duration is previously approved by the cabinet pursuant to this subsection.

(e) The source or modification was not subject to this administrative regulation with respect to particulate matter requirements in effect before July 31, 1987, and the owner or operator:

1. Obtained all final federal, state, and local preconstruction approvals or permits necessary under the applicable SIP before July 31, 1987;

2. Commenced construction within eighteen (18) months after July 31, 1987; and

3. Did not discontinue construction for a period of eighteen (18) months or more and completed construction within a reasonable period of time.

(f)1. The source or modification was subject to this administrative regulation for particulate matter requirements, in effect before July 31, 1987, and the owner or operator submitted an application for a permit under the applicable permit program before that date; and

2. The cabinet subsequently determined that the application as submitted was complete with respect to the particulate matter requirements then in effect.

(2) Sections 8 to 16 of this administrative regulation shall not apply to a major stationary source or major modification for a particular pollutant if the owner or operator demonstrates that, for that pollutant, the source or modification is located in an area designated as non-attainment pursuant to 42 USC 7407(d)(1)(A)(i).

(3) Sections 9, 11 and 13 of this administrative regulation shall not apply to a major stationary source or major modification for a particular pollutant, if the allowable emissions of that pollutant from the source, or the net emissions increase of that pollutant from a modification:

(a) Will not impact a Class I area or an area where an applicable increment is known to be violated; and

(b) Will be temporary.

(4) Sections 9, 11 and 13 of this administrative regulation, as applicable to a maximum allowable increase for a Class II area shall not apply to a major modification at a stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each regulated NSR pollutant from the modification after the application of BACT will be less than fifty (50) tons per year.

(5) The cabinet may exempt a stationary source or modification from the monitoring requirements of Section 11 of this administrative regulation for a particular pollutant if:

(a) The emissions increase of the pollutant from the new source or the net emissions increase of the pollutant from the modification will cause air quality impacts in an area, which are less than the amounts listed in the following table; or

Pollutant	Air Quality Level	Averaging Time
Carbon monoxide	575 µg/m^3	8-hour average
Nitrogen dioxide	14 µg/m^3	annual average
Particulate matter	10 µg/m^3 of PM_{10}	24-hour average
Sulfur dioxide	13 µg/m^3	24-hour average
PM_{10}	10 µg/m^3	24-hour average
Ozone	No de minimis air quality level is provided for ozone. However, a net increase of 100 tons per year or more of volatile organic compounds subject to this administrative	

	regulation is required to perform an ambient impact analysis including the gathering of ambient air quality data.	
Lead	0.1 µg/m^3	3-month average
Fluorides	0.25 µg/m^3	24-hour average
Hydrogen sulfide (H_2S)	0.2 µg/m^3	1-hour average
Total reduced sulfur	10 µg/m^3	1-hour average
Reduced sulfur compounds	10 µg/m^3	1-hour average

(b) The concentrations of the pollutant in the area that the source or modification will affect are less than the concentrations listed in the table in paragraph (a) of this subsection, or the pollutant is not listed in the table.

(6) Permitting requirements equivalent to Section 9(21 of this administrative regulation shall not apply to a stationary source or modification for a maximum allowable increase for nitrogen oxides, if:

(a) The owner or operator of the source or modification submitted an application for a permit or permit revision under the applicable permit program before the date on which the provisions embodying the maximum allowable increase took effect in the Kentucky SIP: and

(b) The cabinet subsequently determined that the application as submitted before that date was complete.

(7) Permitting requirements equivalent to Section 10(21 of this administrative regulation shall not apply to a stationary source or modification for a maximum allowable increase for PM_{10} if:

(a) The owner or operator of the source or modification submitted an application for a permit under the applicable permit program before the provisions embodying the maximum allowable increases for PM_{10} took effect as part of Kentucky's SIP; and

(b) The cabinet subsequently determined that the application as submitted before that date was complete.

(8) (a) The cabinet may determine that, the requirements for air quality monitoring of PM_{10} in Section 11 of this administrative regulation shall not apply to a particular source or modification, if:

1. the owner or operator of the source or modification submitted an application for a permit under this section on or before June 1, 1988; and

2. the cabinet subsequently determines that the application as submitted before that date was complete, except for the requirements for monitoring particulate matter specified in Section 11 of this administrative regulation.

(a) The requirements for air quality monitoring of PM_{10} in Section 11 of this administrative regulation

shall apply to a particular source or modification if the owner or operator of the source or modification submitted an application for a permit under 40 CFR 52.21 or this administrative regulation after June 1, 1988, and not later than December 1, 1988.

1. The data shall have been gathered over at least the period from February 1, 1988, to the date the application becomes complete in accordance with Section 11 of this administrative regulation; and

2. If the cabinet determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period, which may not to be less than four (4) months, the data that Section 11 of this administrative regulation requires shall have been gathered over that shorter period.

(9) If the owner or operator of the· source or modification submitted an application for a permit under 40 C.F.R. 52.21 or this administrative regulation before the date the provisions embodying the maximum allowable increases for PM_{10} took effect and the cabinet subsequently determined that the application as submitted before that date was complete, the requirements of Section 9(2) of this administrative regulation shall:

(a) Not apply to a stationary source or modification for a maximum allowable increase for PM10; and

(b) Apply for the maximum allowable increases for TSP as in effect on the day the application was submitted.

Section 8. Control Technology Review. (1) A major stationary source or major modification shall meet each applicable emissions limitation under the Kentucky SIP and each applicable emissions standard and standard of performance pursuant to 40 C.F.R. Parts 60 and 61.

(2) A new major stationary source shall apply BACT for each regulated NSR pollutant for which the source has the potential to emit in significant amounts.

(3) A major modification shall apply BACT:

(a)For each regulated NSR pollutant that results in a significant net emissions increase at the source; and

(b) For each proposed emissions unit at which a net emissions increase in the pollutant occurs as a result of a physical change or change in the method of operation of the unit.

(4) For phased construction projects:

(a) The cabinet shall review and modify, as appropriate, the BACT determination at the latest reasonable time which occurring not later than eighteen (18) months prior to commencement of

construction of each independent phase of the project; and

(b) If requested by the cabinet, thehe owner or operator of the applicable stationary source shall demonstrate the adequacy of a previous BACT determination for the source.

Section 9. 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, shall not cause or contribute to air pollution in violation of:

(a) A national ambient air quality standard in an air quality control region; or

(b) An applicable maximum allowable increase over the baseline concentration in any area.

Section 10. Air Quality Models. (1) Estimates of ambient concentrations shall be based on the applicable air quality models, databases, and other requirements specified in 40 CFR Part 51, Appendix W, "Guideline on Air Quality Models "Appendix A"

(1) If an air quality model specified in 40 CFR Part 51, Appendix W, is inappropriate, the model may be modified or another model substituted.

(a) The use of a modified or substitute model shall be;

1. Subject to notice and opportunity for public comment under 401 KAR 52:100; and

2. Approved in writing by the U.S. EPA pursuant to 40 C.F.R. 51.166(1)..

(b) Methods similar to those outlined in the "Workbook for the Comparison of Air Quality Models," specified in 401 KAR 50:040, Section 1(3), shall be used to determine the comparability of air quality models.

Section 11. Air Quality Analysis. (1) Preapplication analysis.

(a) An application for a permit or a permit revision under 401 KAR 52:020 and this administrative regulation shall contain an analysis of ambient air quality in the area that the major stationary source or major modification will affect for each of the following:

1. For a source, each pollutant that the source will have the potential to emit in a significant amount;

2. For a modification, each pollutant that the modification will result in a significant net emissions increase.

(b) For a pollutant that does not have a national ambient air quality standard, the analysis shall contain air quality monitoring data the cabinet determines necessary to assess ambient air quality for that pollutant in an area that the emissions of that pollutant will affect.

(c) For pollutants, other than nonmethane hydrocarbons, for which a standard exists, the analysis shall contain continuous air quality monitoring data gathered to determine if emissions of that pollutant will cause or contribute to a violation of the standard or a maximum allowable increase.

(d) 1. The required continuous air quality monitoring data shall have been gathered over a period of at least one (1) year and shall represent at least the year preceding receipt of the application.

2. If the cabinet determines that a complete and adequate analysis may be accomplished with monitoring data gathered over a period shorter than one (1) year, that period shall be not less than four (4) months (.

(e) For analysis of volatile organic compounds, the owner or operator of a proposed major stationary source or major modification who satisfies all conditions of 40 CFR Part 51, Appendix S, section IV, may provide post-approval monitoring data for ozone instead of providing preconstruction data as required in this section.

(f) For air quality monitoring of PM_{10} under Section 7(8)(a) and (b) of this administrative regulation, the owner or operator of the source or modification shall use a monitoring method approved by the cabinet pursuant to 40 C.F.R. Part 53 and shall estimate the ambient concentrations of PM_{10} using the data collected by that approved monitoring method in accordance with estimating procedures approved by the cabinet pursuant to 40 C.F.R Part 58, Appendix A.

(2) Post-construction monitoring. After construction of a major stationary source or major modification, the owner or operator shall conduct ambient monitoring that the cabinet determines is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in an area.

(3) Operation of monitoring stations. During the operation of air quality monitoring stations, the owner or operator of a major stationary source or major modification shall meet the requirements of 40 CFR Part 58, Appendix A, to satisfy the air quality analysis requirements of this section.

Section 12. Source Information. The owner or operator of a proposed source or modification shall submit all information necessary to perform an analysis or make a determination required under this administrative regulation.

(1) The information shall include:

(a) 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;

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

(c) A detailed description of the system of continuous emissions reduction planned for the source or modification, emissions estimates, and any information necessary to determine that BACT

will be applied.

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

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

(b) The air quality impacts and the nature and extent of general commercial, residential, industrial, and other growth that has occurred since August 7, 1977, in the area the source or modification will affect.

Section 13. Additional Impact Analysis. (1) The owner or operator shall provide an analysis of the impairment to visibility, soils, and vegetation that will occur as a result of:

(a) The source or modification; and

(b) General commercial, residential, industrial, and other growth associated with the source or modification.

(2)The owner or operator shall not berequired to provide an analysis of the impact on vegetation not having significant commercial or recreational value.

(3) 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.

(4) Visibility monitoring.

(a) If the cabinet requires monitoring of visibility in a Class I area impacted by the proposed new stationary source or major modification, the monitoring shall be performed using:

1. Human observations;

2. Teleradiometers;

3. Photographic cameras;

4. Nephelometers;

5. Fine particulate monitors; or

6. Other U.S. EPA-approved methods.

(b) The method selected shall be determined on a case-by-case basis by the Cabinet pursuant to 40 C.F.R. 51.166.

(c) Visibility monitoring required by the cabinet in a Class I area shall be approved by the federal land manager.

(d) Data obtained from visibility monitoring shall be made available to the cabinet, U.S. EPA, and the federal land manager, upon request.

Section 14. Sources Impacting Class I Areas; Additional Requirements.

(1) Notice to U.S. EPA and federal land managers. The cabinet shall provide:

(a) written notice to the U.S. EPA, the federal land manager, and the federal official charged with direct responsibility for management of lands within a Class I area of a permit application for a proposed major stationary source or major modification that may affect the Class I area.

(b) Notice promptly after receiving the permit application. The notice shall:

1. Include a copy of all information relevant to the permit application;
2. Be given within thirty (30) days of receipt, and at least sixty (60) days prior to the public hearing on the application for a permit to construct; and
3. Include an analysis of the proposed source's anticipated impacts on visibility in the Class I area.

(c) The cabinet shall also provide the federal land manager and other federal officials with a copy of the preliminary determination and shall make available to them the materials used in making that determination, promptly after the cabinet makes it. The cabinet shall also notify all affected federal land managers within thirty (30) days of receipt of an advance notification of the permit application.

(2) Federal land manager. The federal land manager and the federal official charged with direct responsibility for management of lands located in a Class I area shall have an affirmative responsibility to protect visibility and other air quality related values of the lands and to consider, in consultation with the cabinet, if a proposed source or modification will have an adverse impact on those values.

(3) Visibility analysis.

(a) The cabinet shall consider an analysis performed by the federal land manager, which is provided within thirty (30) days of the notice and analysis required by subsection (1) of this section, which shows that a proposed new major stationary source or major modification may have an adverse impact on visibility in a Class I area.

(b) If the cabinet finds the analysis does not demonstrate to the cabinet’s satisfaction that an adverse

impact on visibility will result in the Class I area, the cabinet shall, in the public notice required in 401 KAR 50:100, either explain that decision or give notice as to where the explanation may be obtained.

(4) Denial; impact on air quality related values.

(a) The federal land manager of lands located in a Class I area may demonstrate to the cabinet that the emissions from a proposed source or modification will have an adverse impact on the visibility and other air quality related values of those lands, even though the change in air quality resulting from emissions from the proposed source or modification will not cause or contribute to concentrations that will exceed the maximum allowable increases for a Class I area.

(b) If the cabinet concurs with the demonstration specified in paragraph (a) of this subsection, the cabinet shall not issue the permit or permit revision.

(5) Class I variances.

(a) The owner or operator of a proposed source or modification may demonstrate to the federal land manager that the emissions from the source or modification will not have adverse impact on the visibility or other air quality related values of lands located in a Class I area, even though the change in air quality resulting from emissions from the source or modification will cause or contribute to concentrations that will exceed the maximum allowable increases for a Class I area as specified in Section 2(1) of this administrative regulation.

(b) If limitations are necessary, the cabinet may issue the permit or permit revision with emissions limitations necessary to assure that emissions of sulfur dioxide, PM2.5, PM10 and nitrogen oxides will not exceed the maximum allowable increases over minor source baseline concentration for the pollutants as specified in 40 C.F.R. 51.166(p)(4), as published on July 1, 2012, if:

1. The federal land manager concurs with the demonstration specified in paragraph (a) of this subsection and certifies accordingly; and

2. The other applicable requirements of this administrative regulation are met. (6) Sulfur dioxide variance by governor with federal land manager's concurrence. (a) The owner or operator of a proposed source or modification which cannot be approved under subsection (5) of this section because the source cannot be constructed without exceeding a maximum allowable increase in sulfur dioxide applicable to a Class I area for a period of twenty-four (24) hours or less, may demonstrate to the Governor of the Commonwealth of Kentucky that a variance will not adversely affect the visibility or other air quality related values of the area.

(b) The governor, after consideration of the federal land manager's recommendation, if applicable, and subject to the federal land manager's concurrence, may, after notice and public hearing, grant a variance from the maximum allowable increase.

(c) If a variance is granted, the cabinet shall issue a permit or permit revision to the source or modification

under the requirements of 401 KAR Chapter 52 if the other applicable requirements of this administrative regulation are met.

(7) Variance by the governor with the President's concurrence.

(a) If 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.

(b) If the variance is approved by the President, the cabinet shall issue a permit or permit revision in accordance with the requirements of 401 KAR Chapter 52 if the other applicable requirements of this administrative regulation are met.

(8) Emission limitations for presidential or gubernatorial variance. For a permit or permit revision issued pursuant to subsections (6) or (7) of this section, the source or modification shall comply with the emissions limitations necessary to assure that:

(a) Emissions of sulfur dioxide from the source or modification shall not, during a day on which the other applicable maximum allowable increases are exceeded, cause or contribute to concentrations that will exceed the maximum allowable increases over the baseline concentration as specified in the following table: and

Maximum Allowable Increase (Micrograms per cubic meter)		
	Terrain areas	
Period of Exposure	Low	High
24-hour maximum	36	62
3-hour maximum	130	221

(b) Emissions shall not cause or contribute to concentrations that exceed other applicable maximum allowable increases for periods of exposure of twenty-four (24) hours or less for more than a total of eighteen (18) days that are not necessarily consecutive during an annual period.

Section 15. Public Participation. The cabinet shall follow the applicable procedures of 401 KAR 52:100, 40 CFR 51.166(q) and this administrative regulation in processing applications under this administrative regulation.

Section 16. Source Obligation. (1) An owner or operator of a source or modification subject to this administrative regulation who begins actual construction after September 22, 1982, shall construct and operate the source or modification in accordance with the application submitted to the cabinet under this administrative regulation and 401 KAR 52:020 or under the terms of an approval to construct.

(2)(a) Approval to construct shall become invalid if construction:

1. Is not commenced within eighteen (18) months after receipt of the approval;
2. Is discontinued for a period of eighteen (18) months or more; or
3. Is not completed within a reasonable time.

(b) The cabinet may extend the eighteen (18) month period upon a satisfactory demonstration that an extension is justified.

1. An extension shall not apply to the time period between construction of the approved phases of a phased construction project; and
2. Each phase shall commence construction within eighteen (18) months of the projected and approved commencement date.

(3) Approval to construct shall not relieve an owner or operator of the responsibility to comply fully with Title 401, KAR Chapters 50 to 68, and other requirements of local, state, or federal law.

(4) If a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in an enforceable limitation that was established after August 7, 1980, on the capacity of the source or modification to emit a pollutant, Sections 8 to 16 of this administrative regulation shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(5)(a) The provisions of this subsection shall apply to projects at existing emissions units at a major stationary source other than projects at a clean unit or at a source with a PAL, if:

1. There is a reasonable possibility that a project that is not part of a major modification may result in a significant emissions increase: and

2. The owner or operator elects to use the method specified in 401 KAR 51:001, Section 1(199)(b) to calculate projected actual emissions.

(b) Before beginning actual construction of a project specified in paragraph (a) of this subsection. the owner or operator shall document and maintain a record of the following information:

1. A description of the project;

2. Identification of the emissions units for which emissions of a regulated NSR pollutant could be affected by the project: and

3. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

a. Baseline actual emissions:

b. Projected actual emissions:

c. Amount of emissions excluded in calculating projected actual emissions and an explanation for why that amount was excluded: and

d. Any applicable netting calculations.

(c) For a project specified in paragraph (a) of this subsection. the owner or operator shall:

1. Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that are emitted by any emissions unit identified in paragraph (b)2 of this subsection: and

2. Calculate and maintain a record of the annual emissions in tons per year on a calendar year basis for:

a. Five (5) years following resumption of regular operations after the change: or

b. Ten (10) years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of the regulated NSR pollutant at the emissions unit.

(d) If the emissions unit is an existing EUSGU, before beginning actual construction, the owner or operator:

1. Shall provide a copy of the information in paragraph (b) of this subsection to the cabinet, but shall not be required to obtain a determination from the cabinet before beginning actual construction: and

2. Shall submit a report to the cabinet within sixty (60) days after the end of each year during which records are required to be generated under paragraph (b) of this subsection that reports the unit's annual emissions during the calendar year that preceded submission of the report.

(e)1. For an existing unit other than an EUSGU, the owner or operator shall submit a report to the cabinet if:

a. The annual emissions, in tons per year, from a project identified in paragraph (a) of this subsection exceeds the baseline actual emissions, as documented and maintained pursuant to paragraph (b)3 of this subsection, by a significant amount for that regulated NSR pollutant: and

b. The emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (b)3 of this subsection.

2. The report shall be submitted within sixty 1601 days after the end of the year during which records are required to be generated under paragraph (b) of this subsection and shall contain the following:

a. The name, address, and telephone number of the major stationary source;

b. The annual emissions as calculated pursuant to paragraph (cl of this subsection; and

c. Any other information that the owner or operator wishes to include in the report.

(f) The owner or operator of the source shall make the information required to be documented and maintained under to this subsection available for review upon request for inspection by the cabinet or the general public pursuant to 401 KAR 52:100.

Section 17. Environmental Impact Statements. If a proposed source or modification is subject to action by a federal agency that may might necessitate preparation of an environmental impact statement under 42 USC 4321 to 4370d (the National Environmental Policy Act), review by the cabinet conducted under this administrative regulation shall be coordinated with the broad environmental reviews under that Act and under 42 USC 7609 to the maximum extent feasible and reasonable.

Section 18. Innovative Control Technology. (1) An owner or operator of a proposed major stationary source or major modification may make written request that the cabinet approve a system of innovative control technology.

(2) The cabinet may, with the consent of the governors of other affected states, determine that the source or modification may employ a system of innovative control technology if:

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

(b) The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required under Section 8(2) of this administrative regulation by a date, specified by the cabinet that is not later than four (4) years from the time of start-up or seven (7) years from permit issuance;

(c) The source or modification shall meet requirements equivalent to those in Sections 8 and 9 of this administrative regulation based on the emissions rate that the stationary source employing the system of innovative control technology shall be required to meet on the date specified by the cabinet;

(d) The source or modification shall not before the date specified by the cabinet:

1. Cause or contribute to a violation of an applicable national ambient air quality standard; or

2. Impact an area in which an applicable increment is known to be violated;

(e) Section 14 of this administrative regulation relating to Class I areas has been satisfied for all periods during the life of the source or modification; and

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

(3) The cabinet shall withdraw approval to employ a system of innovative control technology if:

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

(b) The proposed system fails before the specified date and contributes to an unreasonable risk to public health, welfare, or safety; or

(c) The cabinet decides that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.

(4) If a source or modification fails to meet the required level of continuous emissions reduction within the specified time period or the approval is withdrawn in accordance with subsection (3) of this section, the cabinet may allow the source or modification up to an additional three (3) years to meet the requirement for the application of BACT through use of a demonstrated system of control.

Section 19. Permit Condition Rescission. (1) (a) An owner or operator holding a permit for a stationary source or modification that contains conditions pursuant to 401 KAR 51:015 or 51:016E may request that the cabinet rescind the applicable conditions.

(b) An owner or operator of a stationary source or modification who holds a permit for the source or modification that was issued under this administrative regulation as in effect on July 30, 1987, or an earlier version of this administrative regulation, may request that the cabinet rescind the permit or a particular portion of the permit.

(2) The cabinet shall rescind a permit condition if requested and if the applicant can demonstrate to the satisfaction of the cabinet that this administrative regulation does not apply to the source or modification or to a portion of the source or modification.

Section 20. Plant-wide Applicability Limit Provisions. The cabinet shall only approve the use of an actuals PAL (PAL) for an existing major stationary source if the PAL meets the requirements of this section.

(1) General provisions.

(a) An owner or operator may execute a project without triggering major NSR, if the source maintains its total source-wide emissions below the PAL level, meets the requirements in this section, and complies with the PAL permit. If these conditions are met, a project: ·

1. Shall not be considered a major modification for the PAL pollutant:

2. Shall not have to be approved through Kentucky's major NSR program: and

3. Shall not be subject to the provisions of Section 16(4) of this administrative regulation concerning restrictions on relaxing enforceable emission limitations that a major stationary source used to avoid applicability of the major NSR program.

(b) Except as provided under subparagraph (1)(a)3 of this section, a major stationary source shall continue to comply with all applicable federal or state requirements, emissions limitations, and work practice requirements that were established prior to the effective date of the PAL.

(2) Permit application requirements. The owner or operator of a major stationary source shall submit the following information to the cabinet for approval as part of an application for a permit or permit revision requesting a PAL:

(a) A list of all emissions units at the source designated as small, significant, or major, based on their potential to emit:

(b) Identification of the federal and state applicable requirements, emissions limitations, and work practice requirements that apply to each emissions unit:

(c) Calculations of the baseline actual emissions for the emissions units with supporting documentation, including emissions associated with startup, shutdown, and malfunction; and

(d) The calculation procedures the owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a twelve
(12) month rolling total for each month as required by subsection (12)(a) of this section.

(3) Establishing a PAL. The cabinet shall establish a PAL at a major stationary source in a federally enforceable permit pursuant to the requirements of this section.

(a) The PAL shall impose an annual emissions limitation in tons per year that is enforceable as a practical matter for the entire major stationary source.

1. For each month during the PAL effective period after the first twelve (12) months of establishing a PAL, the owner or operator shall demonstrate that the sum of the monthly emissions from each emissions unit under the PAL for the previous twelve (12) consecutive months is less than the PAL as a twelve (12) month average, rolled monthly: and

2. For each month during the first eleven (11 l months from the PAL effective date, the owner or operator shall demonstrate that the sum of the preceding monthly emissions from
the PAL effective date for each emissions unit under the PAL is less than the PAL.

(b) The PAL shall be established in a PAL permit that:

1. Meets the public participation requirements in subsection (4) of this section: and

2. Contains all the requirements of subsection (6) of this section.

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

(d) Each PAL shall regulate emissions of only one (1) pollutant.

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

(f) The owner or operator of a major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements of subsections (11) to (13) of this section for each emissions unit under the PAL through the PAL effective period.

(g) Emissions reductions of a PAL pollutant that occur during the PAL effective period shall not be creditable as decreases for offsets under 40 C.F.R. 51.1651a)(3)(ii)
unless:

1. The level of the PAL is reduced by the amount of the emissions reductions: and

2. The reductions will be creditable in the absence of the PAL.

(4) Public participation requirements. PALs for existing major stationary sources shall be established, renewed, or increased pursuant to this subsection and the applicable procedures of 401 KAR 52:100. The cabinet shall:

(a) Provide the public with notice of the proposed approval of a PAL permit with at least a thirty (30) day period for submittal of public comment: and

(b) Address all material comments before taking final action on a PAL permit or permit revision.

(5) Setting the ten (10) year PAL level.

(a) The PAL level for a major stationary source shall be the sum of the baseline actual emissions of the PAL pollutant for each emissions unit at the source during the
·chosen twenty-four (24) month period plus the applicable significant level for the PAL pollutant under the definition for "significant" in 401 KAR 51:001. Section 1(221) or under 42 U.S.C. 7401-7671q, whichever is lower.

(b) In establishing a PAL level for a PAL pollutant, only one (1) consecutive twenty-four *(24)* month period shall be used to determine the baseline actual emissions for all existing emissions units.

(c) A different consecutive twenty-four (24) month period may be used for each different PAL pollutant.

(d) Emissions associated with units that were permanently shutdown after the chosen twenty-four (24) month period shall be subtracted from the PAL level.

(e) Emissions from units for which actual construction began after the twenty-four (24) month period shall be added to the PAL level in an amount equal to the potential to emit of the units.

(f) The cabinet shall specify a reduced PAL level in the PAL permit to become effective on the future compliance date of any applicable federal or state regulatory requirement that the cabinet is aware of prior to issuance of the PAL permit.

(6) Contents of the PAL permit. The PAL permit shall contain the following information:

(a) The PAL pollutant and the applicable source-wide emissions limitation in tons per year;

(b) The PAL permit effective date and the expiration date of the PAL or PAL effective period;

(c) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL under subsection (9) of this section before the end of the PAL effective period, the PAL shall remain in effect until a revised PAL permit is issued by the cabinet;

(d) A requirement that emissions calculations for compliance purposes include emissions from startups, shutdowns, and malfunctions;

(e) A requirement that, once the PAL expires, the major stationary source shall be subject to the requirements of subsection (8) of this section;

(f) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a twelve (12) month rolling total for each month as required by subsection (12)(a) of this section;

(g) A requirement that the major stationary source owner or operator shall monitor all emissions units in accordance with the provisions in subsection (12) of this section;

(h) A requirement that the owner or operator shall retain the records required under subsection (12) of this section on site. Records may be retained in an electronic format;

(i) A requirement for the owner or operator to submit the reports required under subsection (13) of this section by the required deadlines; and

(j) Any requirements necessary to implement and enforce the PAL.

(7) PAL effective period and reopening of a PAL permit.

(a) A PAL effective period shall be ten (10) years.

(b) The cabinet shall reopen a PAL permit to:

1. Correct typographical or calculation errors made in setting the PAL;

2. Reflect a more accurate determination of emissions used to establish the PAL;

3. Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under 40 C.F .R. 51.165(a)(3)(ii);
or

4. Revise the PAL to reflect an increase in the PAL according to subsection (10) of this section.

(c) The cabinet may reopen the PAL permit, during the PAL effective period, to:

1. Reduce the PAL to reflect newly applicable federal requirements with compliance dates after the PAL effective date;

2. Reduce the PAL consistent with any other requirement that is enforceable as a practical matter and imposed on the major stationary source under the SIP; and

3. Reduce the PAL if the cabinet determines that a reduction is necessary to avoid causing or contributing to:

a. A National Ambient Air Quality Standard (NAAQS) or PSD increment violation; or

b. An adverse impact on visibility or another air quality related value that has been identified for a federal Class I area by a federal land manager and for which information is available to the general public.

(d) All permit reopenings shall be carried out under the public participation requirements of subsection (4) of this section except for permit reopenings to correct
typographical or calculation of errors that do not increase the PAL level.

(8) Expiration of a PAL. A PAL that is not renewed shall expire at the end of the PAL effective period, and the requirements of this subsection shall then apply.

(a) Each emissions unit, or each group of emissions units, that existed under the PAL shall comply with an allowable emissions limitations under a revised permit
established as follows:

1. An owner or operator of a major stationary source using a PAL shall submit a proposed allowable

emissions limitation for each emissions unit, or each group of emissions units, by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL.

a. This proposal shall be submitted to the cabinet at least six (6) months before the expiration of the PAL permit but not sooner than eighteen (18) months before permit expiration.

b. If the PAL has not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under subsection (9)(e) of this section, distribution of allowable emissions shall be made as if the PAL has been adjusted.

2. The cabinet shall decide the date and procedure the owner or operator shall use to distribute the PAL allowable emissions.

3. The cabinet shall issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the cabinet determines is appropriate.

(b) Each emissions unit shall comply with the allowable emissions limitation on a twelve (12) month rolling basis. The cabinet may approve the use of monitoring systems other than CEMS, CERMS, PEMS, or CPMS if the alternate monitoring system demonstrates compliance with the allowable emissions limitation.

(c) The source shall continue to comply with a source-wide. multiunit emissions cap equivalent to the level of the PAL emissions limitation until the cabinet issues the revised permit incorporating allowable limits for each emissions unit or each group of emissions units.

(d) A major modification at the major stationary source shall be subject to major NSR requirements.

€ The major stationary source owner or operator shall continue to comply with any state or federal applicable requirements eliminated by the PAL that applied during or before the PAL effective period, except for those emissions limitations established pursuant to Section 16(4) of this administrative regulation.

(9) Renewal of a PAL.

(a) Public participation requirements.

1. The cabinet shall follow the public participation procedures specified in subsection (4) of this section in approving a request to renew a PAL for a major stationary source.

2. The cabinet shall provide a written rationale for the proposed PAL level for public review and comment.

3. Any person may propose a PAL level for the source for consideration by the cabinet during the public

review period.

(b) Application deadline.

1. A major stationary source owner or operator shall submit an application for renewal of a PAL at least six (6) months before the date of permit expiration but not earlier
than eighteen (18) months before permit expiration.

2. The deadline for application submittal shall ensure that the permit shall not expire before the permit is renewed.

3. If a complete application for renewal is submitted within the timeframe specified in subparagraph 1 of this paragraph, the PAL shall continue to be effective until the
revised permit with the renewed PAL is issued.

(c) Application requirements. The application to renew a PAL permit shall contain:

1. The information required in subsection (2) of this section;

2. A proposed PAL level;

3. The sum of the potential to emit of all emissions units under the PAL with supporting documentation; and

4. Any other information the owner or operator wishes the cabinet to consider in determining the appropriate level to renew the PAL.

(d) PAL adjustment.

1. A PAL shall not exceed the source's potential to emit. The cabinet shall adjust the PAL downward if a source's potential to emit has declined below the PAL level.

2. The cabinet may renew the PAL at the same level as the current PAL if the sum of the baseline actual emissions for all emissions units at the source plus an amount
equal to the significant level is equal to or greater than eighty (80) percent of the current PAL level, unless the sum is greater than the source's potential to emit.

3. If the sum of the baseline actual emissions for all emissions units at the source plus an amount equal to the significant level is less than eighty (80) percent of the current PAL level, the cabinet may set the PAL at a different level if the level is determined to be:

a. More representative of the source's baseline actual emissions; or

b. Appropriate considering the following factors:

(i) Air quality needs;

(ii) Advances in control technology;

(iii) Anticipated economic growth in the area of the source;

(iv) The cabinet's goal of promoting voluntary emissions reductions:

(v) Cost effective emissions control alternatives: and

(vi) Other factors as specifically identified by the cabinet in its written rationale for setting the PAL level.

4. The cabinet shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of subsection (10) of this section.

(e) The PAL shall be adjusted in conjunction with PAL permit renewal or Title V permit renewal. whichever comes first, if:

1. The compliance date for a state or federal applicable requirement that applies to the PAL source occurs during the PAL effective period: and

2. The cabinet has not already adjusted for the requirement.

(10) Increasing a PAL during the PAL effective period. The cabinet may increase a PAL emissions limitation during the PAL effective period if the major stationary source
complies with the provisions of this subsection.

(a) Application procedures. To request an increase in the PAL limit for a PAL major modification, the owner or operator of the major stationary source shall submit a
complete application. which shall:

1. Identification of the emissions units contributing to the increase in emissions that cause the source's emissions to equal or exceed its PAL**;**

2. Demonstration that the increased PAL, as calculated in paragraph (c) of this subsection, exceeds the PAL; and

a. The level of control that results from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis with
the application submittal, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding ten
(10) years;

b. If an emissions unit currently complies with BACT or LAER, the assumed control level for that emissions unit shall be equal to the current level of BACT or LAER for that emissions unit; and

3. A statement that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(b) NSR permit and compliance requirement. The owner or operator shall obtain a major NSR permit for all emissions units contributing to the increase in emissions for the
PAL major modification.

1. A significant level shall not apply in deciding for which emissions units a major NSR permit shall be obtained; and

2. Emissions units that obtain a major NSR permit shall comply with any emissions requirements resulting from the major NSR process, even though the units shall also
become subject to the PAL or shall continue to be subject to the PAL.

(c) Calculation of increased PAL. The cabinet shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the baseline actual emissions of the small emissions units.
Id) Public notice requirement. The public notice requirements of subsection (4l of this section shall be followed during PAL permit revision for an increased PAL level.

(11) Monitoring requirements for PALs.

(a) General requirements.

1. Each PAL permit shall contain enforceable requirements for the chosen monitoring system that accurately determines plant-wide emissions of the PAL pollutant in terms
of mass per unit of time:

2. A monitoring system authorized for use in the PAL permit shall be:

a. Approved by the cabinet pursuant to this subsection; and

b. Based on sound science and meet generally acceptable scientific procedures for data quality and manipulation:

3. The data generated by a monitoring system shall meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit:

4. The PAL monitoring system shall employ one (1) or more of the four (4) general monitoring approaches meeting the minimum requirements set forth in paragraph (b) of

this subsection:

5. The cabinet may approve an alternative monitoring approach that meets the requirements of subparagraphs 1 to 3 of this paragraph: and

6. Failure to use a monitoring system that meets the requirements of this section shall render the PAL invalid.

(b) Minimum performance requirements for approved monitoring approaches. If conducted in accordance with the minimum requirements in paragraphs (c) to (i) of this Subsection, the following shall be acceptable monitoring approaches:

1. Mass balance calculations for activities using coatings or solvents:

2. GEMS:

3. CPMS or PEMS: and

4. Emission factors.

(c) Mass balance calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coatings or solvents shall:

1. Provide a demonstrated means of validating the published content of the PAL pollutant contained in or created by all materials used in or at the emissions unit:

2. If the PAL pollutant cannot be accounted for in the process, assume that the emissions unit emits all of the PAL pollutant contained in or created by any raw material or fuel used in or at the emissions unit: and

3. If the vendor of the material or fuel from which the pollutant originates publishes a range, use the highest value of the published range of pollutant content to calculate the PAL pollutant emissions, unless the cabinet determines there is site-specific data or a site-specific monitoring program to support another pollutant content within the range.

(d) GEMS. An owner or operator using GEMS to monitor PAL pollutant emissions shall meet the following requirements:

1. GEMS shall comply with applicable performance specifications found in 40 C.F.R. Part 60. Appendix B: and

2. GEMS shall sample, analyze, and record data at least every fifteen (15) minutes while the emissions unit is operating.

€ CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall

meet the following requirements:

1. The CPMS or the PEMS shall be based on current site-specific data demonstrating a correlation between the monitored parameter and the PAL pollutant emissions across the range of operation of the emissions unit: and

2. While the unit is operating, each CPMS or PEMS shall sample, analyze, and record data at least every fifteen (15) minutes. or at another less frequent interval approved by the cabinet.

(f) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:

1. All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development:

2. The emissions unit shall operate within the designated range of use for the emission factor, if applicable: and

3. The owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within six (6) months of PAL permit issuance if the cabinet determines that the testing is required and technically practicable.

(g) A source owner or operator shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during any period of time there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.

(h) If an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameters and the PAL pollutant emissions rate at all operating
points of the emissions unit, as an alternative to the requirements of paragraphs (c) to (g) of this subsection, in conjunction with permit issuance the cabinet shall:

1. Establish default values for determining compliance with the PAL based on the highest potential emissions reasonably estimated at operating points: or

2. Determine that operation of the emissions unit during operating conditions if there is not a correlation between monitored parameters and the PAL pollutant emissions is a violation of the PAL.

(i) Revalidation. All data used to establish the PAL pollutant shall be revalidated through performance testing or other scientifically valid means if approved by the cabinet. Validation testing shall occur at least once every five (5) years after issuance of the PAL.

(12) Recordkeeping requirements.

(a) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of this section and of the PAL,
including a determination of each emissions unit's twelve (12) month rolling total emissions for five (51 years from the date of the determination.

(b) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus five (5) years:

1. A copy of the PAL permit application and any applications for revisions to the PAL: and

2. Each annual certification of compliance pursuant to Title V and the data used to certify compliance.

(13) Reporting and notification requirements. The owner or operator shall submit semiannual monitoring reports and prompt deviation reports to the cabinet in accordance with 401 KAR 52:020. 52:030. and 52:040 that meet the following requirements:

(a) Semiannual report. The semiannual report shall be submitted to the cabinet within thirty (30) days of the end of each reporting period and shall contain:

1. The identification of owner and operator and the permit number:

2. Total annual emissions, in tpy, based on a twelve (12l month rolling total for each month in the reporting period recorded pursuant to subsection (12)(a) of this section:

3. All data used in calculating the monthly and annual PAL pollutant emissions, including any quality assurance or quality control data:

4. A list of any emissions units modified or added to the major stationary source during the preceding six (6) month period:

5. The number, duration, and cause of any deviations or monitoring malfunctions, other than the time associated with zero and span calibration checks, and any corrective
action following a deviation:

6. A notification of permanent or temporary shutdown of any monitoring system including:

a. The reason for the shutdown:

b. The anticipated date that the monitoring system shall be fully operational or shall be replaced with another monitoring system:

c. If applicable, a statement that the emissions unit monitored by the monitoring system continued to operate without the monitoring system: and

d. The calculation of the emissions of the pollutant or the number determined according to subsection (11)(g) of this section that is included in the permit: and

7. A signed statement by the responsible official, as defined by 401 KAR 51:001, Section 1(210), certifying the truth, accuracy, and completeness of the information provided in the semiannual report.

(b) Deviation report. The major stationary source owner or operator shall submit reports of any deviation or exceedance of the PAL requirements, including periods
monitoring is unavailable.

1. A report submitted pursuant to 40 C.F.R. 70.6(a)(3)(iii)(B) shall satisfy the deviation reporting requirement;

2. The deviation report shall be submitted within the time limits prescribed by 40 C.F.R. 70.6(a)(3)(iii)(B);

3. The deviation report shall contain the following information:

a. The identification of the owner, the operator, and the permit number:

b. The PAL requirement that experienced the deviation or that was exceeded:

c. Emissions resulting from the deviation or the exceedance: and

d. A signed statement by the responsible official, as defined by 401 KAR 51:001, Section 1(210), certifying the truth, accuracy, and completeness of the information provided in the report.

(c) Revalidation results. The owner or operator shall submit to the cabinet the results of any revalidation test or method within three (3) months after completion of the test or method.

(14) Transition requirements.

(a) After the U.S. EPA approves the Kentucky SIP revisions for the PAL provisions published in 67 Fed. Reg. 80186. December 31, 2002, the cabinet shall only issue a PAL
that complies with the requirements of this section.

(b) The cabinet may supersede a PAL that was established before August 10, 2006, with a different PAL if the new PAL complies with the requirements of this administrative regulation.

Effective Date: March 12, 1997

Date Submitted to EPA	Date Approved by EPA	Federal Register

Original Reg	FEB 20, 1986	SEP 01, 1989	54 FR 36307
1st Revision	DEC 29, 1986	NOV 28, 1989	54 FR 48887
2nd Revision	FEB 09, 1988	NOV 06, 1989	54 FR 46612
3rd Revision	JUL 07, 1988	FEB 07, 1990	55 FR 4169
4th Revision	OCT 20, 1992	JUN 23, 1994	59 FR 32343
5th Revision	MAR 21, 1997	JUL 24, 1998	63 FR 39741
6th Revision	SEP 2, 2004	JUL 11, 2006	71 FR 38990
7th Revision	FEB 4, 2010	SEP 15, 2010	75 FR 55988
8th Revision	JAN 31, 2013	NOV 3. 2014	79 FR 65143

401 KAR 51:052. Review of new sources in or impacting upon nonattainment areas.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection Division for Air Quality

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120; 42 USC 7401-7626; 42 USC 7407(d)(1)(A)(i), (ii), and (iii); 42 USC 7410; 40 C.F.R. Part 51, Appendix S. Part 51 Subpart l, 51.165, 51.166, 51.300, 51.307, 52.21, 60, 61, 70.6, 40 CFR Part 81 Subpart D; 40 CFR 81.318, 42 U.S.C. 7401-7671q.

STATUTORY AUTHORITY: KRS 224.10-100(5) 42 U.S.C. 7401-7671g, EO 2009-538

NECESSITY AND FUNCTION: KRS 224.10-100(5) requires the cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. 42 USC 7410 likewise requires the state to implement standards for national primary and secondary ambient air quality. This administrative regulation establishes requirements for the construction or modification of stationary sources within, or impacting upon, areas where the national ambient air quality standards have not been attained. The provisions of this administrative regulation are not more stringent than the corresponding federal requirements.

Section 1. Applicability. This administrative regulation shall apply to the construction of a new major stationary source any project at an existing major stationary source that commences construction after September 22, 1982, and locates in an area designated attainment or unclassifiable under 42 U.S.C. 7407(d)(1)(A)(ii) and
17 (iii).

(1) The provisions of this administrative regulation relating to visibility protection shall also apply to major sources or major modifications in nonattainment areas that potentially have an impact on visibility in a mandatory Class I federal area.

(2) Applicability tests for projects. Except as provided in subsection 3 of this section, a project shall be a major modification for a regulated NSR pollutant only if the project causes a significant emissions increase and a significant net emissions increase, as provided in paragraphs (a) and (b) of this subsection.,

(a) Prior to beginning actual construction, the owner or operator shall first determine if a significant emissions increase will occur for the applicable type of unit being constructed or modified according to subparagraphs 1 to 3 of this paragraph.

1. Actual-to-projected actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant shall be projected to occur if the sum of the difference between the projected actual emissions and the baseline actual emissions for each existing emissions unit equals or exceeds the significant amount for that pollutant.

2. Actual-to-potential test for projects that involve only construction of new emissions units. A significant emissions increase of a regulated NSR pollutant shall be projected to occur if the sum of the potential to emit from each new emissions unit following completion of the project equals or exceeds the significant amount for that pollutant.

3. Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant shall be projected to occur if the sum of the emissions increases for each emissions unit, using the methods specified in subparagraphs 1 and 2 of this paragraph as applicable for each emissions unit, equals or exceeds the significant amount for that pollutant.

(b) Prior to beginning actual construction and after completing the applicable test in paragraph (a) of this subsection, the owner or operator shall determine for each regulated NSR pollutant if a significant net emissions increase will occur pursuant to 401 KAR 51:001, Section 1(144) and (218).

(3) For a plantwide applicability limit (PAL) for a regulated NSR pollutant at a major stationary source1 the owner or operator of the major stationary source shall comply with the applicable requirements of Section 11 of this administrative regulation.

Section 2. Initial Screening Analyses and Determination of Applicable Requirements.

(1) Review of all sources for emissions limitation compliance.

(a)The cabinet shall examine each proposed major new source and proposed major modification to determine if the source or modification will meet all applicable emissions requirements in the Kentucky State Implementation
Plan (SIP) and 40 C.F.R. Parts 60 and 61.

(b) If the cabinet determines from the application and all other available information that the proposed source or modification will not meet the applicable emissions requirements, the permit to construct shall be denied.

(2) Review of specified sources of air quality impact.

(a) The cabinet shall determine if a major stationary source or major modification will be constructed in an area designated as nonattainment pursuant to 42 U.S.C. 7407(d)(1)(A)(i) for a pollutant for which the stationary source or modification is major.
(b) If a designated nonattainment area is projected to be an attainment area as part of an approved control strategy by the new source start-up date, offsets shall not be required if the new source will not cause a new violation.

(3) Fugitive emission sources. Sections 4 and 10 of this administrative regulation shall not apply to a

source or modification that will 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 one (1) of the following categories:

(a) Coal cleaning plants with thermal dryers;
(b) Kraft pulp mills;
(c) Portland cement plants;
(d) Primary zinc smelters;
(e) Iron and steel mills;
(f) Primary aluminum ore reduction plants;
(g) Primary copper smelters;
(h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
(i) Hydrofluoric, sulfuric, or nitric acid plants;
(j) Petroleum refineries:
(k) Lime plants;
(l) Phosphate rock processing plants;
(m) Coke oven batteries;
(n) Sulfur recovery plants;
(o) Carbon black plants, furnace process;
(p) Primary lead smelters;
(q) Fuel conversion plants;
(r) Sintering plants;
(s) Secondary metal production plants;
(t) Chemical process plants;
(u) Fossil-fuel boilers, or combination of fossil-fuel boilers totaling more than 250 million BTUs per hour heat input;
(v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
(w) Taconite ore processing plants;
(x) Glass fiber processing plants;
(y) Charcoal production plants;
(z) Fossil fuel-fired steam electric plants of more than 250 million BTUs per hour heat input; or
(aa) Another stationary source category that, as of August 7, 1980, is being regulated under 42 U.S.C. 7411 or 7412.

Section 3. Sources Locating In Designated Attainment or Unclassifiable Areas that will cause or contribute to a violation of a National Ambient Air Quality Standard. (1) This section shall apply only to new major stationary sources or new major modifications that will locate in designated attainment or unclassifiable areas pursuant to 42 U.S.C. 7407(d)(1)(A)(ii) or (iii) if the source or modification will cause impacts that exceed the significance levels, as listed in the table in this subsection, at a locality that does not or will not meet the national ambient air quality standards.

Pollutant	Annual Average	Averaging Time			
		24-Hour	8-Hour	3-Hour	1-Hour

Sulfur dioxide	1.0 ug/m^3	5 ug/m^3		25 ug/m^3	
PM_{10}	1.0 ug/m^3	5 ug/m^3			
Nitrogen dioxide	1.0 ug/m^3				
Carbon monoxide			0.5 ug/m^3		2 ug/m^3

(2) Sources to which this section applies shall meet the requirements in Section 4(l), (2) and (4) of this administrative regulation and may be exempt from Section 4(3) of this administrative regulation.

(3) For sources of sulfur dioxide (SO_2), particulate matter, and carbon monoxide, (CO), the determination that a new major source or major modification will cause or contribute to a violation of a national ambient air quality standard shall be made on a case-by-case basis using the source's allowable emissions in an approved atmospheric simulation model listed in 40 C.F.R. Part 51 Appendix W. "Guideline on Air Quality Models.".

(4) For sources of NO_x, the initial determination that new major source or major modification will cause or contribute to a violation of the national ambient air quality standard for nitrogen dioxide (NO_2) shall be made using an approved atmospheric simulation model assuming all the nitric oxide emitted is oxidized to $N0_x$ by the time the plume reaches ground level. The initial concentration estimates may be adjusted if adequate data are available to account for the expected oxidation rate.

(5) For ozone, sources of VOCs or NOx locating outside a designated ozone nonattainment area shall be presumed to not have a significant impact on the designated nonattainment area. If ambient monitoring indicates that the area of source location is in fact nonattainment, the source shall be permitted pursuant to this administrative regulation and 401 KAR 52:020 until the area is designated nonattainment pursuant to 42 U.S.C. 7407(d)(IXA)(i).

(6) The determination as that a new major source or major modification will cause or contribute to a violation of a national ambient air quality standard shall be made as of the start-up date.

(7) Applications for major new sources and major modifications locating in attainment or unclassifiable areas the operation of which will cause a new violation of a national ambient air quality standard but will not contribute to an existing violation may be approved only if the following conditions are met:

(a) The new source shall:

1. meet an emissions limitation;
2. Meet a design, operational, or equipment standard; or
3. Control existing sources so that the new source will not cause a violation of a national ambient air quality standard.

(b) The new emissions limitations for the new and existing sources affected shall be state and federally enforceable in accordance with Section 6 of this administrative regulation.

Section 4. Sources Locating in a Designated Nonattainment Area. This section shall apply to a new major stationary source or major modifications that will be constructed in an area designated as nonattainment pursuant to 42 U.S.C. 7407(d)(1)(A)(i) for a pollutant for which the stationary source or modification is major. Approval to construct may be granted only if the conditions of this section are met.

(1) The new major source or major modification shall be required to meet an emissions limitation thath specifies the lowest achievable emissions rate (LAER) for the source.

(2) The applicant shall demonstrate that all existing major sources owned or operated by the applicant, or an entity controlling, controlled by, or under common control with the applicant, in the Commonwealth of Kentucky are in compliance with all applicable emissions limitations and standards specified in Title 401, Chapters 50 to 63, and 40 C.F.R. Parts 60 and 61 and 42 U.S.C. 7401-7626, or are in compliance with an expeditious state and federally enforceable compliance schedule or a court decree establishing a compliance schedule.

(3) (a) Except for VOCs or NOx emissions, emissions from existing sources in the affected area of the proposed new major source or modification, whether or not under the same ownership, shall be reduced or offset at a ratio of at least 1:1, so that there will be reasonable further progress toward attainment of the applicable national ambient air quality standard (NAAQS). Only those transactions in which the emissions being offset are from the same criteria pollutant category shall be accepted.

(b) The ratio of total emissions reductions of VOCs or NOx, to total increased emissions of the same air pollutant shall be at least the ratio indicated for the following ozone nonattainment area classifications:

1. For marginal nonattainment areas, at least 1.1 to 1;
2. For moderate nonattainment areas, at least 1.15 to 1;
3. For serious nonattainment areas, at least 1.2 to 1;
4. For severe nonattainment areas, at least 1.3 to 1; and
5. For extreme nonattainment areas, at least 1.5 to 1.

(4) The emissions reductions shall provide a positive net air quality benefit in the affected area.

(a) Atmospheric simulation modeling shall not be required for VOCs and NOx.
(b) Except as provided in Section 3(5) of this administrative regulation, compliance with subsection (3) of this section and Section 5(3)(e) of this administrative regulation shall be adequate to meet this condition.

(5) The proposed major stationary source or major modification shall include in the application for a construction permit an analysis of the alternative sites, sizes, production processes, and environmental control techniques for the proposed source which demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

Section 5. Determining Credit for Emissions Offsets.

(1) The baseline for determining credit for emissions reductions or offsets shall be, where baseline actual emissions as defined in 401 KAR 51:001, Section (20), shall not be used for determining the baseline for emissions offsets:

(a) The emissions limitations in effect when the application to construct or modify a source is filed; or
(b) The actual emissions of the source from which offset credit is attained if:
1. The demonstration of reasonable further progress and attainment of ambient air quality standards for the SIP was based on actual emissions; or
2. The SIP does not contain an emissions limitation for that source or source category.

(2) Credit for emissions offsets. Credit for emissions offset purposes may be allowed for existing control if the existing control goes beyond the control required under 401 KAR Chapters 50 to 65 and applicable federal regulations.

(3) General provisions for calculating offset values.
(a) Offset calculations shall be made on a pound per hour basis if all facilities involved in the emissions offset calculations are operating at their maximum or allowed production rate.
(b) Offsets may be calculated on a tons per year basis if baseline emissions for existing sources providing the offsets are calculated using the actual annual operating hours for the previous two (2) year period.
(c) If the cabinet requires certain hardware controls instead of an emissions limitation, baseline allowable emissions shall be based on actual operating conditions for the previous two (2) year period in conjunction with the required hardware controls.
(d) If the emissions limitations required by the cabinet allow greater emissions than the uncontrolled emissions rate of the source, emissions offset credit shall be allowed only for control below the uncontrolled emissions rate.

(e) The owner or operator of a new or modified major stationary source shall comply with any offset requirement in effect under this administrative regulation to increase emissions of an air pollutant by obtaining emissions reductions of the air pollutant from:

1. The same source or other sources in the same nonattainment area; or
2. A source in another nonattainment area if:

(a) The other area has an equal or higher nonattainment classification than the area in which the source is located; and
(b) Emissions from the other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located.

(4) Calculating offsets if an applicable emissions limitation does not exist. If the Kentucky SIP does not contain an emissions limitation for a source or source category, the emissions offset baseline involving the source shall be actual emissions determined under actual operating conditions for the previous two (2) year period.

(5) Calculating offsets for existing fuel combustion sources.

(a) The emissions for determining emissions offset credit involving an existing fuel combustion source shall be the allowable emissions under the emissions limitation requirements of the cabinet for the type of fuel being burned when the new major source or major modification application is filed.

(b) If the existing source has switched to a different type of fuel at some earlier date, a resulting emissions reduction, either actual or allowable, shall not be used for emissions offset credit.

(c) If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable emissions for the fuels involved shall not be allowed unless the permit is conditioned to require the use of a specified alternative control measure that will achieve the same degree of emissions reduction if the source switches back to a dirtier fuel at some later date.

(6) Calculating offsets for operating hours and source shutdowns.

(a) A source may be credited with emissions reductions achieved by shutting down an existing source or permanently curtailing production or operating hours below baseline levels if the work force to be affected has been notified in writing of the proposed shutdown or curtailment.

(b) Emissions reductions achieved by shutting down an existing emissions unit or curtailing production or operating hours:

1. May be generally credited for offsets pursuant to 40 C.F.R. 51.165(a)(3)(ii)(C)(1) if:

a. The reductions are surplus, permanent, quantifiable, and federally enforceable; and

b. The shutdown or curtailment occurred after the last day of the base year for the SIP planning process.

(i) The cabinet may consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop an attainment demonstration explicitly includes the emissions from the previously shutdown or curtailed emission unit, pursuant to 40 C.F.R. 51.165(a)(3)(ii)(C)(1)(ii).

(ii) Credit shall not be given for a shutdown that occurred before August 7, 1977;

2. That do not meet the requirements of clause b. of subparagraph 1. may be generally credited pursuant to 40 C.F. R. 51.165(a)(3)(ii)(C)(2) if:

a. The shutdown or curtailment occurred on or after the date the construction permit application is filed; or

b. The applicant establishes that the proposed new emissions unit is a replacement for the shutdown or

curtailed emissions unit, and the emissions reductions achieved by the shutdown or curtailment meet the requirements of clause a. of subparagraph 1.

(7) Calculating offsets for hydrocarbon substitution. An emissions offset credit shall not be allowed for replacing one volatile organic compound with another of lesser photochemical reactivity, unless the replacement compound is methane, ethane. 1.1.1-trichloroethane, or trichlorofluoroethane.

(8) Banking of emissions offset credit.
(a) New sources obtaining permits by applying offsets after the effective date of this administrative regulation may bank offsets that exceed the requirements of Section 5(3) of this administrative regulation.
(b) An owner or operator of an existing source that reduces its own emissions may bank a resulting reduction beyond those required by regulation for use under this administrative regulation, even if the offsets are applied immediately to a new source permit.
(c) Banked emissions offsets may be used under the preconstruction review program required in 42 U.S.C. 7401 to 7626, as long as these banked emissions are identified and accounted for in Kentucky's control strategy.

(9) Offset credit for meeting NSPS or NESHAPS.

(a) If a source is subject to an emissions limitation established in a New Source Performance Standard (NSPS) or a National Emissions Standard for Hazardous Air Pollutants (NESHAPS) and a different emissions limitation is required by the cabinet, the more stringent limitation shall be used as the baseline for determining credit for emissions offsets.
(b) The difference in emissions between NSPS or NESHAPS and other emissions limitations shall not be used as offset credit.

Section 6. Administrative Procedures for Emissions Offsets. (1) Emissions reductions shall be enforceable by the cabinet and the U.S. EPA and shall be accomplished by the start-up date of the new source.

(a) If emissions reductions are to be obtained in a state that neighbors the Commonwealth for a new source to be located in the Commonwealth, the emissions reductions shall be enforceable by the neighboring state or local agencies and the U.S. EPA.
(b) The necessary emissions offsets may be proposed by the owner of the proposed source or by the cabinet.

(2) Source initiated emissions offsets.

(a) The owner or operator of a source may propose:
1. Internal emissions offsets, which involve reductions from sources controlled by the owner; or
2. External emissions offsets, which involve reductions from other sources, if the emissions offsets meet the requirements of this section and Section 4(3) of this administrative regulation.
(b) An internal emissions offset shall be included and made enforceable as a condition of the source’s permit.

(c) An external emissions offset shall only be accepted if the cabinet requires the affected source to comply with a new emissions limitation to ensure that its emissions shall be reduced by a specified amount in a specified time; and the new emissions limitation shall be enforceable by the cabinet and the U.S. EPA.

(3) Cabinet initiated emissions offsets.

(a) The cabinet may commit to reducing emissions from mobile sources and Other existing sources to provide a net air quality benefit in the impact area of a proposed new source to accommodate the proposed new source.
(b) This emissions reduction commitment shall be reflected in the emissions limitation requirements for the new and existing sources as required by this section.

Section 7. Source Obligation. (1) An owner or operator of a source or modification subject to this administrative regulation shall construct and operate the source or modification in accordance with the application submitted to the cabinet under this administrative regulation and 401 KAR 52:020 or under the terms of an approval to construct.

(2)(a) Approval to construct shall become invalid if construction:

1. Is not commenced within eighteen (18) months after receipt of the approval;
2. Is discontinued for a period of eighteen (18) months or more; or
3. Is not completed within a reasonable time.

(b) The cabinet may extend the eighteen (18) month period upon a satisfactory demonstration that an extension is justified.

1. An extension shall not apply to the time period between construction of the approved phases of a phased construction project; and
2. Each phase shall commence construction within eighteen (18) months of the projected and approved commencement date.

(3) Approval to construct shall not relieve an owner or operator of the responsibility to comply fully with applicable provisions of 401 KAR Chapters 50 to 65, and other applicable requirements under local, state, or federal law.

(4) If a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in an enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, the requirements of this administrative regulation shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(5)(a) The provisions of this subsection shall apply to projects at existing emissions units at a major stationary source other than projects at a source with a PAL, if:

1. There is a reasonable possibility that a project that is not part of a major modification may result in a significant emissions increase: and
2. The owner or operator uses the method specified in 401 KAR 51:001, Section 1 (202)(b) to calculate projected actual emissions.
(b) Before beginning actual construction of a project specified in paragraph (a) of this subsection, the owner or operator shall document and maintain a record of the following information:
1. A description of the project;
2. Identification of the emissions units for which emissions of a regulated NSR pollutant may be affected by the project; and
3. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

a. Baseline actual emissions:
b. Projected actual emissions;
c. Amount of emissions excluded in calculating projected actual emissions and an explanation for why that amount was excluded; and
d. Any applicable netting calculations.
a. For a project specified in paragraph (a) of this subsection, the owner or operator shall:

1. Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that are emitted by an emissions unit identified in paragraph (a)2 of this subsection; and
2. Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for:

a. Five (5) years following resumption of regular operations after the change; or
b. Ten (10) years if the project increases the design capacity of or potential to emit for that regulated NSR pollutant at the emissions unit.
(d) If the unit is an existing EUSGU, before beginning actual construction, the owner or operator:
1. Shall provide a copy of the information in paragraph (b) of this subsection to the cabinet; and
2. Shall not be required to obtain a determination from the cabinet before beginning actual construction; and
3. Shall submit a report to the cabinet within sixty (60) days after the end of each year during which records are required to be generated under paragraph (b) of this subsection that contains the unit's annual emissions during the calendar year preceding report submittal.

(e)1. For an existing unit other than an EUSGU, the owner or operator shall submit a report to the cabinet if:
a. The annual emissions, in tons per year, from a project identified in paragraph (a) of this subsection exceed the baseline actual emissions, as documented and maintained pursuant to paragraph (b)3 of this subsection, by a significant amount for that regulated NSR pollutant; and
b. The emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (b)3 of this subsection.
2. The report shall be submitted to the cabinet within sixty (60) days after the end of the year during which records are required to be generated under paragraph (b) of this subsection and shall contain the following:

a. The name, address, and telephone number of the major stationary source;
b. The annual emissions as calculated pursuant to paragraph (c) of this subsection; and
c. Any other information that the owner or operator wishes to include in the report.
(f) The owner or operator of the source shall make the information required to be documented and maintained under this subsection available for review upon request for inspection by the cabinet or the general public pursuant to 401 KAR 52:100.

Section 8. Permit Condition Rescission. (1) An owner or operator holding a permit for a stationary source or modification that was issued pursuant to 401 KAR 51:050 or 51:051E may request that the cabinet rescind the applicable conditions.

(2) The cabinet shall rescind a permit condition if the owner or operator:

(a) Requests and demonstrates to the satisfaction of the cabinet that this administrative regulation does not apply to the source or modification or to a portion if construction will have commenced after September 22, 1982; and
(b) Demonstrates that the rescission will not violate the requirements of Section 4(3) and 7 of this administrative regulation.

Section 9. Class I Areas.

(1) The following areas, which were in existence on August 7, 1977, shall be Class I areas and shall not be redesignated:
(a) International parks;

(b) National wilderness areas and national memorial parks which exceed 5,000 acres in size; and

(c) National parks that exceed 6,000 acres in size.

(2) Any other area, unless otherwise specified in the legislation creating the area, is designated Class H but may be redesignated as provided m 40 C.F.R. 51.166(g).

(3) The visibility protection requirements of this administrative regulation shall apply only to sources that may impact a mandatory Class I federal area.

(4) The following areas may be redesignated only as Class I or 11:
(a) An area which as of August 7, 1977, exceeded 10,000 acres in size and was a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national shore or seashore; and

(b) A national park or national wilderness area established after August 7, 1977, which exceeds 10,000 acres in size.

Section 10. Protection of Visibility.

(1) New source review; applicability and exemptions.

(a) A stationary source or modification to which this section applies shall not begin actual construction without a permit that states that the stationary source or modification shall meet requirements of this section.

(b) This section shall apply to construction of a new major stationary source or major modification that will be constructed in an area designated as nonattainment under 42 U.S.C. 7407(d)(1)(A)(i) and potentially have an impact on visibility in a Class I area.

(c) This section shall apply to a major stationary source or major modification for each pollutant subject to regulation under 42 U.S.C. 7401 to 7626 that it will emit, except as provided in paragraphs (d) and (e) of this subsection.

(d) This section shall not apply to a particular major stationary source or major modification if:

1. The source or modification is a nonprofit health or nonprofit educational institution, or a major modification will occur at the institution, and the Governor of the Commonwealth requests that it be exempt from the requirements of this section; and

2. The source is a portable stationary source that has previously received a permit under this section and will be temporarily relocated; and:

a. The emissions from the source will not exceed the allowable emissions;

b. The emissions from the source will not impact a Class I area or an area where an applicable increment is known to be violated; and

c. Reasonable notice is given to the cabinet prior to the relocation, identifying the proposed new location and the probable duration of operation at the new location. The notice shall be given to the cabinet not less than ten (10) days in advance of the proposed relocation unless a different time duration is previously approved by the cabinet pursuant to this section.

(e) This section 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 modification:

1. Will not impact a Class I area;

2. Will not impact an area where an applicable increment is known to be violated; and

2. Will be temporary.

(2) Visibility impact analyses. The owner or operator of a source shall provide an analysis of the impairment to visibility that will occur in a Class I area as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or

modification.

(3) Federal land manager notification.

(a) The federal land manager and the federal official charged with direct responsibility for management of Class I areas shall have an affirmative responsibility to protect the visibility and other air quality related values, of the Class I lands and to consider, in consultation with the cabinet, if a proposed source or modification will have an adverse impact on these values.

(b) The cabinet shall provide written notification to all affected federal land managers and to the federal official charged with direct responsibility for management of lands within the Class I area of a permit application or an advanced notice of a permit application for a proposed new major stationary source or major modification that may affect visibility in a Class I area. The notification shall:

1. Include a copy of all information relevant to the permit application;

2. Be submitted pursuant to this paragraph within thirty (30) days of receipt of the permit application or advanced notice of permit application and at least sixty (60) days prior to a public hearing on the application for a permit to construct; and

3. Include an analysis of the proposed source's anticipated impacts on visibility in a Class I area.

(c)1. The cabinet shall consider an analysis by the federal land manager, provided within thirty (30) days of the notification and analysis required by paragraph (b) of this subsection, that the proposed new major stationary source or major modification may have an adverse impact on visibility in a Class I area.

2. If the cabinet finds that the analysis does not demonstrate to the satisfaction of the cabinet that an adverse impact on visibility will result in the Class I area, the cabinet shall, in the public hearing notice required in 401 KAR 50:035, Section 4, either explain that decision or give notice as to where the explanation may be obtained.

(d) Adverse impact on visibility as it applies to Section 11(3)(c) of this administrative regulation shall be determined on a case-by-case basis, taking into account the geographic extent, intensity, duration, frequency, and time of visibility impairments, and how these factors correlate with the times of visitor use of the Class I area, and the frequency and time of natural conditions that reduce visibility.

(4) Public participation. The cabinet shall follow the applicable procedures of 401 KAR 50:035 in processing applications under this section and shall follow the procedures at 40 C.F.R. 52.21(r) effective July 1, 2009, to the extent that the procedures of 401 KAR 50:035 do not apply.

(5) National visibility goal.

(a) The cabinet shall only issue permits to those sources for which emissions will be consistent with making reasonable progress toward the national goal of preventing future, and remedying existing, impairment of visibility in Class I areas which impairment results from manmade air pollution.

(b) In making the decision to issue a permit, the cabinet shall consider:
1. The costs of compliance;
2. The time necessary for compliance;
3. The energy and non-air quality environmental impacts of compliance; and
4. The useful life of the source.

(6) Monitoring.
(a) The cabinet may require monitoring of visibility in a Class I area near 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 the U.S. EPA.
(b) The monitoring method selected shall be determined on a case-by case basis by the cabinet.
(c) The cabinet shall not undertake visibility monitoring in a Class I area without the approval of the federal land manager.
(d) Data obtained from visibility monitoring shall be made available to the cabinet, the federal land manager, and the U.S. EPA, upon request.

Section 11. Plantwide Applicability Limit Provisions. The cabinet may approve the use of an actuals PAL (PAL) for an existing major stationary source if the PAL meets the requirements of this section.

(1) General provisions.
(a) An owner or operator may execute a project without triggering major NSR, if the source maintains its total source-wide emissions below the PAL level, meets the requirements in this section, and complies with the PAL permit. If these conditions are met, a project:
1. Shall not be considered a major modification for the PAL pollutant;
2. Shall not have to be approved through Kentucky's major NSR program; and
3. Shall not be subject to the provisions of Section 7(4) of this administrative regulation concerning restrictions on relaxing enforceable emissions limitations that the major stationary source used to avoid applicability of the major NSR program.

(b) Except as provided under subparagraph (1)(a)3 of this section, the major stationary source shall continue to comply with all applicable federal or state requirements, emissions limitations, and work practice requirements that were established prior to the effective date of the PAL.

(c) The cabinet shall not allow a PAL for VOC or NOx for any major stationary source located in an extreme ozone nonattainment area.

(2) Permit application requirements. The owner or operator of a major stationary source shall submit the following information to the cabinet for approval as part of an application for a permit or permit revision requesting a PAL:

(a) A list of all emissions units at the source designated as small. Significant or major, based on their potential to emit;
(b) Identification of the federal and state applicable requirements, emissions limitations, and work practice

requirements that apply to each emissions unit;
(c) Calculations of the baseline actual emissions for the emissions units with supporting documentation; and

(d) The calculation procedures the owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a twelve (12) month rolling total for each month as required by subsection (12)(a) of this section.

(3) Establishing a PAL. The cabinet shall establish a PAL at a major stationary source in a federally enforceable permit pursuant to the requirements of this section.

(a) The PAL shall impose an annual emissions limitation in tons per year that is enforceable as a practical matter for the entire major stationary source, in which:

1. For each month during the PAL effective period after the first twelve (12) months of establishing a PAL, the owner or operator shall demonstrate that the sum of the monthly emissions from each emissions unit under the PAL for the previous twelve (12) consecutive months is less than the PAL as a twelve (12) month average, rolled monthly; and

2. For each month during the first eleven (11) months from the PAL effective date, the owner or operator shall demonstrate that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL;

(b) The PAL shall be established in a PAL permit that:

1. Meets the public participation requirements in subsection (4) of this section; and

2. Contains all the requirements of subsection (6) of this section;

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

(d) Each PAL shall regulate emissions of only one pollutant;

(e)_Each PAL shall have a PAL effective period of ten (10) years;

(f) The owner or operator of a major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements of subsections (11) to (13) of this section for each emissions unit under the PAL through the PAL effective period; and

(g) Emissions reductions of a PAL pollutant that occur during the PAL effective period shall not be creditable as decreases for offsets under 40 C.F.R. 51.165(a)(3)(ii), unless: ·

1. The level of the PAL is reduced by the amount of the emissions reductions; and

2. The reductions would be creditable in the absence of the PAL.

(4) Public participation requirements. PALs for existing major stationary sources shall be established, renewed, or increased pursuant to this subsection and the applicable procedures of 401 KAR 52:100 for issuing permits or permit revisions. The cabinet shall:

(a) Provide the public with notice of the proposed approval of a PAL permit with at least a thirty (30) day period for submittal of public comment; and

(b) Address all material comments before taking final action on a PAL permit or permit revision.

(5) Setting the ten (10) year PAL level.

(a) The PAL level for a major stationary source shall be the sum of the baseline actual emissions of the PAL pollutant for each emissions unit at the source during the chosen twenty-four (24) month period plus the applicable significant level for the PAL pollutant under the definition for "significant" in 401 KAR 51:001, Section 1
or under 42 U.S.C. 7401-7671q, whichever is lower.

(b) In establishing a PAL level for a PAL pollutant, only one consecutive twenty-four (24) month period shall be used to determine the baseline actual emissions for all existing emissions units.

(c) A different consecutive twenty-four (24) month period may be used for each different PAL pollutant.

(d) Emissions associated with units that were permanently shutdown after the chosen twenty-four (24) month period shall be subtracted from the PAL level.

(e) Emissions from units for which actual construction began after the twenty-four (24) month period shall be added to the PAL level in an amount equal to the potential to emit of the units.

(f) The cabinet shall specify a reduced PAL level in the PAL permit to become effective on the future compliance date of any applicable federal or state regulatory requirement that the cabinet is aware of prior to issuance of the PAL permit.

(6) Contents of the PAL permit. The PAL permit shall contain the following information:

(a) The PAL pollutant and the applicable source-wide emissions limitation in tons per year;

(b) The PAL permit effective date and the expiration date of the PAL or PAL effective period;

(c) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL under subsection (9) of this section before the end of the PAL effective period, the PAL shall remain in effect until a revised PAL permit is issued by the cabinet:

(d) A requirement that emissions calculations for compliance purposes include emissions from startups, shutdowns, and malfunctions:

(e) A requirement that, once the PAL expires, the major stationary source shall be subject to the requirements of subsection (8) of this section:

(f) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a twelve (12) month rolling total for each month as required by subsection (12)(a) of this section;

(g) A requirement that the major stationary source owner or operator shall monitor all emissions units in accordance with the provisions in subsection (12) of this section;

(h) A requirement that the owner or operator shall retain the records required under subsection (12) of this section on site. Records may be retained in an electronic format;

(i) A requirement for the owner or operator to submit by the reports required under subsection (13) of this section by the required deadlines; and

(j) Any requirements necessary to implement and enforce the PAL.

(7) PAL effective period and reopening of a PAL permit.

(a) A PAL effective period shall be ten (10) years.

(b) The cabinet shall reopen a PAL permit to:

1. Correct typographical or calculation errors made in setting the PAL;
2. Reflect a more accurate determination of emissions used to establish the
3. Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under 40 C.F.R. 51.165(a)(3)(ii): or
4. Revise the PAL to reflect an increase in the PAL according to subsection 10 of this section.

(c) The cabinet may reopen the PAL permit, during the PAL effective period, to:

1. Reduce the PAL to reflect newly applicable federal requirements with compliance dates after the PAL effective date;
2. Reduce the PAL consistent with any other requirement:
a. That is enforceable as a practical matter; and
b. That may be imposed on the major stationary source under the SIP; and
3. Reduce the PAL if the cabinet determines that a reduction is necessary to avoid causing or contributing to:
a. A National Ambient Air Quality Standard (NAAQS) or PSD increment violation; or
b. An adverse impact on visibility or another air quality related value that has been identified for a federal

Class I area by a federal land manager and for which information is available to the general public.

(d) All permit reopenings shall be carried out under the public participation requirements of subsection (4) of this section except for permit reopenings to correct typographical or calculation of errors that do not increase the PAL level.

(8) Expiration of a PAL. A PAL that is not renewed shall expire at the end of the PAL effective period and the requirements of this subsection shall then apply.

(a) Each emissions unit, or each group of emissions units, that existed under the PAL shall comply with an allowable emissions limitation [limitations] under a revised permit established as follows:

1. An owner or operator of a major stationary source using a PAL shall submit a proposed allowable emissions limitation for each emissions unit, or each group of emissions units, by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL.

a. This proposal shall be submitted to the cabinet at least six (6) months 6 before the expiration of the PAL permit but not sooner than eighteen (18) months before permit expiration.

b. If the PAL has not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under subsection (9)(e) of this section, distribution of allowable emissions shall be made as if the PAL has been adjusted.

2. The cabinet shall provide the date and procedure the owner or operator shall use to distribute the PAL allowable emissions.

3. The cabinet shall issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the cabinet determines is appropriate.

(b) Each emissions unit shall comply with the allowable emissions limitation on a twelve (12) month rolling basis. The cabinet may approve the use of monitoring systems other than CEMS, CERMS, PEMS, or CPMS if the alternate monitoring system demonstrates compliance with the allowable emissions limitation.

(c) The source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emissions limitation until the cabinet issues the revised permit incorporating allowable limits for each emissions unit or each group of emissions units.

(d) A major modification at the major stationary source shall be subject to major NSR requirements.

(e) The major stationary source owner or operator shall continue to comply with any state or federal applicable requirements eliminated by the PAL that applied during or before the PAL effective period, except for those emissions limitations established pursuant to Section 7(4) of this administrative regulation.

(9) Renewal of a PAL.

(a) Public participation requirements.

1. The cabinet shall follow the public participation procedures specified in subsection (4) of this section in approving a request to renew a PAL for a major stationary source.

2. The cabinet shall provide a written rationale for the proposed PAL level for public review and comment.

3. Any person may propose a PAL level for the source for consideration by the cabinet during the public review period.

(b) Application deadline.

1. A major stationary source owner or operator shall submit an application for renewal of a PAL at least six (6) months before the date of permit expiration but not earlier than eighteen (18) months before permit expiration.

2. The deadline for application submittal shall ensure that the permit shall not expire before the permit is renewed.

3. If a complete application for renewal is submitted within the timeframe specified in subparagraph 1 of this paragraph, the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

(c) Application requirements. The application to renew a PAL permit shall contain:

1. The information required in subsection (2) of this section;
2. A proposed PAL level;
3. The sum of the potential to emit of all emissions units under the PAL with supporting documentation; and
4. Any other information the owner or operator wishes the cabinet to 10 consider in determining the appropriate level to renew the PAL.

(d) PAL adjustment.
1. A PAL shall not exceed the source's potential to emit. The cabinet shall adjust the PAL downward to a level not greater than the potential to emit if a source's potential to emit has declined below the PAL level.

2. The cabinet may renew the PAL at the same level as the current PAL without considering the factors specified in subparagraph 3 of this section, if the emissions level calculated according to subsection (5) of this section is equal to or greater than eighty (80) percent of the PAL level; or

3. The cabinet may set the PAL at a level that is determined to be:

a. More representative of the source's baseline actual emissions; or

b. Appropriate considering the following factors:

(i) Air quality needs:
(ii) Advances in control technology:

(iii) Anticipated economic growth in the area of the source:

(iv) The cabinet's goal of promoting voluntary emissions reductions: and

(v) Other factors as specifically identified by the cabinet in its written rationale for setting the PAL level.

4. The cabinet shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of subsection (10) of this section.

(e) The PAL shall be adjusted in conjunction with the PAL permit renewal or Title V permit renewal, whichever comes first, if:

1. The compliance date for a state or federal applicable requirement that applies to the PAL source occurs during the PAL effective period; and

2. The cabinet has not already adjusted for the requirement.

(10) Increasing a PAL during the PAL effective period. The cabinet may increase a PAL emissions limitation during the PAL effective period if the major stationary source complies with the provisions of this subsection.

(a) Application procedures. To request an increase in the PAL limit for a PAL major modification. The owner or operator of the major stationary source shall submit a complete application, which shall include:

1. Identification of the emissions units contributing to the increase in emissions for the PAL major modification;

2. Demonstration that increased PAL, as calculated in paragraph (c) of this subsection exceeds the PAL, and:

a. The level of control that results from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis when the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding ten (10) years.

b. If an emissions unit currently complies with BACT or LAER, the assumed control level for that emissions unit shall be equal to the current level of BACT or LAER for that emissions unit; and

3. A statement that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(b) NSR permit and compliance requirement. The owner or operator shall obtain a major NSR permit for all emissions units contributing to the increase in emissions for the PAL major modification.

1. A significant level shall not apply in deciding for which emissions units a major NSR permit shall be obtained; and

2. Emissions units that obtain a major NSR permit shall comply with any emissions requirements resulting from the major NSR process, even though the units shall also become subject to the PAL or shall continue to be subject to the PAL.

(c) Calculation of increased PAL. The cabinet shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the baseline actual emissions of the small emissions units.

(d) Public notice requirement. The public notice requirements of subsection (4) of this section shall be followed during PAL permit revision for an increased PAL level.

(11) Monitoring requirements for PALs.

(a) General requirements.

1. Each PAL permit shall contain enforceable requirements for the chosen monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time;

2. A monitoring system authorized for use in the PAL permit shall be:

a. Approved by the cabinet pursuant to this subsection; and

b. Based on sound science and meet generally acceptable scientific procedures for data quality and manipulation;

3. The data generated by a monitoring system shall meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit;

4. The PAL monitoring system shall employ one or more of the four (4) general monitoring approaches meeting the minimum requirements set forth in paragraph (b) of this subsection;

5. The cabinet may approve an alternative monitoring approach that meets the requirements of subparagraphs 1 to 3 of this paragraph; and

6. Failure to use a monitoring system that meets the requirements of this section shall render the PAL invalid.

(b) Minimum performance requirements for approved monitoring approaches. If conducted in accordance with the minimum requirements in paragraphs (c) to (i) of this subsection, the following shall be acceptable monitoring approaches:

1. Mass balance calculations for activities using coatings or solvents;

2. CEMS;

3. CPMS or PEMS; and

4. Emissions factors.

(c) Mass balance calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coatings or solvents shall:

1. Provide a demonstrated means of validating the published content of the PAL pollutant contained in or created by all materials used in or at the emissions unit;

2. If it cannot be accounted for in the process, assume that the emissions unit emits all of the PAL pollutant contained in or created by any raw material or fuel used in or at the emissions unit; and

3. If the vendor of the material or fuel from which the pollutant originates publishes a range, use the highest value of the published range of pollutant content to calculate the PAL pollutant emissions, unless the cabinet determines there is site-specific data or a site-specific monitoring program to support another pollutant content within the range.

(d) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:

1. CEMS shall comply with applicable Performance Specifications found in 40 C.F.R. Part 60, Appendix A; and

2. CEMS shall sample, analyze, and record data at least every fifteen (15) minutes while the emissions unit is operating.

(e) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:

1. The CPMS or the PEMS shall be based on current site-specific data demonstrating a correlation between the monitored parameter and the PAL pollutant emissions across the range of operation of the emissions unit: and

2. While the unit is operating, each CPMS or PEMS shall sample, analyze, and record data at least every fifteen *(* 15) minutes, or at another less frequent interval approved by the cabinet.

(f) Emissions factors. An owner or operator using emissions factors to monitor PAL pollutant emissions shall meet the following requirements:

1. All emissions factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

2. The emissions unit shall operate within the designated range of use for the emissions factor, if applicable; and

3. The owner or operator of a significant emissions unit that relies on an emissions factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emissions factor within six (6) months of PAL permit issuance if the cabinet determines that the testing is required and technically practicable.

(g) A source owner or operator shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during any period of time there is no monitoring data, unless another method for determining emissions during the periods is specified in the PAL permit.

(h) If an owner or operator of an emissions unit cannot demonstrate a correlation between the, monitored parameters and the PAL pollutant emissions rate at all operating points of the emissions unit, as an alternative to the requirements in paragraphs (c) to (g) of this subsection, in conjunction with permit issuance the cabinet shall:

1. Establish default values for determining compliance with the PAL based on the highest potential emissions reasonably estimated at operating points if a correlation cannot be demonstrated; or

2. If there is not a correlation between monitored parameters and the PAL pollutant emissions, determine that operation of the emissions unit during operating conditions is a violation of the PAL.

(i) Revalidation. All data used to establish the PAL pollutant shall be revalidated through performance testing or other scientifically valid means approved by the cabinet. Validation testing shall occur at least once every five (5) years after issuance of the PAL.

(12) Recordkeeping requirements.

(a) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine

compliance with any requirement of this section and of the PAL, including a determination of each emissions unit's twelve (12) month rolling total emissions for five (5) years from the date of the determination.

(b) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus five (5) years:

1. A copy of the PAL permit application and any applications for revisions to the PAL; and

2. Each annual certification of compliance pursuant to Title V and the data used to certify the compliance.

(13) Reporting and notification requirements. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the cabinet in accordance with 401 KAR Chapter 52 that meet the following requirements:

(a) Semiannual report. The semiannual report shall be submitted to the cabinet within thirty (30) days of the end of each reporting period and shall contain:

1. The identification of owner and operator and the permit number;

2. Total annual emissions, in tpy, based on a twelve (12) month rolling total for each month in the reporting period recorded pursuant to subsection (12)(a) of this section;

3. All data used in calculating the monthly and annual PAL pollutant emissions, including any quality assurance or quality control data;

4. A list of any emissions units modified or added to the major stationary source during the preceding six (6) month period;

5. The number, duration, and cause of any deviations or monitoring malfunctions, other than the time associated with zero and span calibration checks, and any corrective action following a deviation;

6. A notification of permanent or temporary shutdown of any monitoring system including:
a. The reason for the shutdown;

b. The anticipated date that the monitoring system shall be fully operational or shall be replaced with another monitoring system;

c. If applicable, a statement that the emissions unit monitored by the monitoring system continued to operate without the monitoring system; and

d. The calculation of the emissions of the pollutant or the number determined according to subsection (11)(g) of this section that is included in the permit;
and

7. A signed statement by the responsible official, as defined by 401 KAR 52:001, Section 1(210), certifying the truth, accuracy, and completeness of the information provided in the semiannual report.

(b) Deviation report. The major stationary source owner or operator shall submit reports of any deviation or exceedance of the PAL requirements, including periods monitoring is unavailable.

1. A report submitted pursuant to 40 C.F.R. 70.6(a)(3)(iii)(B) shall satisfy this deviation reporting requirement;

2. The deviation report shall be submitted within the time limits prescribed by the applicable program implementing 40 C.F.R. 70.6(a)(3)(iii)(B);

3. The deviation report shall contain the following information:

a. The identification of the owner, the operator, and the permit number;

b. The PAL requirement that experienced the deviation or that was exceeded;

c. Emissions resulting from the deviation or the exceedance; and

d. A signed statement by the responsible official, as defined by 401 KAR 52:001, Section 1(210), certifying the truth, accuracy, and completeness of the information provided in the report.

(c) Re-validation results. The owner or operator shall submit to the cabinet the results of any re-validation test or method within three (3) months after completion of the test or method.

(14) Transition requirements.

(a) After the U.S. EPA approves the Kentucky SIP revisions for the PAL provisions published at [in] 67 Fed. Reg. 80186, December 31. 2002, the cabinet shall only issue a PAL that complies with the requirements of this section.

(b) The cabinet may supersede a PAL that was established before August 10, 2006 with a PAL that complies with the 15 requirements of this administrative regulation.

Effective Date: February 8, 1993

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	Replaced Emergency Regulation (401 KAR 51:052E)		
1st Revision	JUL 07, 1988	FEB 07, 1990	55 FR 4169
2nd Revision	FEB 17, 1993	JUN 23, 1994	59 FR 32343

3rd Revision	SEP 2, 2004	JUL 11, 2006	71 FR 38990
4th Revision	FEB 4, 2010	SEP 15, 2010	75 FR 55988
5th Revision	JAN 31, 2013	NOV 3. 2014	79 FR 65143
6th Revision	SEP 23, 2011	OCT 8, 2015	80 FR 60805

401 KAR 51:150. NOx requirements for stationary internal combustion engines.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. 51.121, 51.122, 40 C.F.R. 78, 97, 42 U.S.C. 7401-7671q

STATUTORY AUTHORITY: KRS 224.10-100(5), 224.20-110, 42 U.S.C. 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. 42 U.S.C. 7410 requires each state to promulgate a plan which provides for implementation, maintenance, and enforcement of the national primary and secondary ambient air quality standard in each air quality control region within the state. Pursuant to the federal NOx SIP Call, this administrative regulation provides for the regional control of nitrogen oxides (NOx) emissions by establishing requirements for large stationary internal combustion engines. This administrative regulation is not more stringent than the federal mandate.

Section 1. Definitions. (1) "Affected engine" means any stationary internal combustion engine or turbine that is:

(a) A Large NOx SIP Call Engine; or

(b) Another stationary internal combustion engine or turbine that is subject to NOx control under a compliance plan pursuant to this administrative regulation.

(2) "Facility seasonal NOx 2007 tonnage reduction" means the total of the engine seasonal NOx 2007 tonnage reductions attributable to all large NOx SIP Call engines of an owner or operator.

(3) "Large NOx SIP Call Engine" means a stationary internal combustion engine identified and designated in the NOx SIP Call engine inventory as emitting more than one (1) ton of NOx per average ozone season day in 1997.

(4) "NOx potential to emit" means the maximum capacity of an engine to emit NOx under its physical and operational design or applicable permit condition for a given period of time. Any physical limitation on the capacity of a source's potential to emit an air pollutant, including air pollution control equipment or combustion modification. shall be treated as part of its design if the limitation is enforceable by the cabinet.

(5) "NOx SIP Call baseline period" or "baseline period" means the period beginning May 1, 1997, and ending September 30, 1997, inclusive.

(6) "NOx SIP Call baseline period utilization" means the amount of work performed by a NOx SIP Call engine during the baseline period in brake horsepower-hours (bhp-hr).

(7) "NOx SIP Call engine inventory" means the NOx emission inventory, compiled by the U.S. EPA, that includes:

(a) Technical amendments pursuant to 65 Fed. Reg. 11222, March 2, 2000; and

(b) The adjustment of the 2007 budget NOx control efficiency to eighty-two (82) percent for large gas-fired engines pursuant to 69 Fed. Reg. 21603, April 21, 2004.

(8) "Past NOx emission rate" means the emission rate of an affected engine in grams per brake horsepower-hour (g/bhp-hr), as determined by performance testing consistent with the requirements of 40 C.F.R. Part 60, Appendix A. If the performance test data are not available, the rate means:

(a) The uncontrolled emission rate for Large NOx SIP Call Engines: or

(b) A rate determined by the cabinet on a case-by-case basis, using appropriate emission factors or data from the NOx SIP Call engine inventory.

(9) "Projected 2007 NOx tonnage reduction" means the projected NOx reduction in tons during the 2007 control period, calculated as the difference between the 2007 base emissions and the 2007 budget emissions. The Projected 2007 NOx tonnage reduction may be corrected through an approved SIP revision.

(10) "Projected 2007 seasonal base NOx emissions" or "2007 base emissions" means the projected uncontrolled NOx emissions, In tons, for the 2007 control period as published in the NOx SIP Call Inventory. The 2007 base emissions may be recalculated through an approved SIP revision.

(11) "Projected 2007 seasonal budget NOx emissions" or "2007 budget emissions" means the projected controlled NOx emissions in tons, for the 2007 control period as published in the NOx SIP Call Inventory. The 2007 budget emissions may be recalculated through an approved SIP revision.

(12) "Projected 2007 Ozone Season utilizati9n" or "2007 utilization" means the projected amount of work during the 2007 control period performed by a NOx SIP Call engine, calculated as the 1997 baseline utilization multiplied by the growth factor assigned to that engine in the NOx SIP Call Inventory.

(13) "Projected NOx emission rate" means the projected emission rate in grams per brake horsepower-hour after installation of controls on an affected engine or the Past NOx emission rate if controls are not installed on an affected engine.

(14) "Projected operating hours" means the projected actual number of hours of operation per ozone season for an affected engine.

(15) "Projected brake horsepower hours" means the projected actual number of brake horsepower hours per ozone season for an affected engine.

(16) "Stationary internal combustion engine" means any internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from one location to another and remains at a single site at a bu1ld1ng, structure, facility, or installation for more than twelve (12) consecutive months. Any engine or engines that replace an engine at

a site that is intended to perform the same or similar function as the engine replaced shall be included in calculating the consecutive time period.

Section 2. Applicability. This administrative regulation shall apply to the owner or operator of any Large NOx SIP Call Engine.

Section 3. Standard for Large NOx SIP Call Engines. On and after May 1, 2007, an owner or operator of an affected engine shall not operate the engine during a control period unless:

(1) The NOx emission rate for a Large NOx SIP Call Engine is reduced from the Past NOx emission rate by at least eighty-two (82) percent; or

(2) The owner or operator complies with the requirements in Section 4 of this administrative regulation.

Section 4. Compliance Plan. On and after May 1, 2007, an owner or operator shall not operate a Large NOx SIP Call Engine during the control period unless the owner or operator complies with the requirements of a compliance plan or reduces NOx emissions from that engine in accordance with Section 3(1) of this administrative regulation.

(1) The compliance plan shall:

(a) Be approved by the cabinet in accordance with Sections 4 through 8 of this administrative regulation;

(b) Include all affected engines at an Individual facility, several facilities, or at all facilities located in Kentucky that are under the control of the same owner or operator;

(c) Be submitted to the cabinet by May 1, 2006;

(d) Include credit for decreases in NOx emissions from Large NOx SIP Call Engines in Kentucky due to NOx control equipment. The owner or operator shall also include credit for decreases in NOx emissions from other affected engines in Kentucky due to NOx control equipment that is not reflected in the 2007 Ozone Season Base NOx Emissions in the NOx SIP Call Engine Inventory;

(e) Include credit for decreases in NOx emissions due to reductions from shifting historic load capacity from an uncontrolled engine to a controlled engine, electric motor, or turbine. The owner or operator shall demonstrate to the satisfaction of the cabinet that a quantifiable net reduction in NOx emissions has occurred or will occur due to a direct shift of ozone season load capacity from an uncontrolled engine to a controlled engine, electric motor, or turbine; and

(f) Provide the following information for each affected engine:

1. A list of affected engines subject to the plan that includes:

a. Engine manufacturer;

b. Engine model number;
c. Facility location address; and
d. Facility identification number.

2. The projected ozone season hours of operation and supporting documentation;

3. A description of the NOx emissions control installed, or to be installed, and documentation to support the Projected NOx Emission Rates;

4. The Past and Projected NOx Emission Rates in grams per brake horsepower-hour;

5. A numerical demonstration that the emission reductions obtained from all affected engines included in the compliance plan will be equivalent to or greater than the owner or operator's Facility Seasonal NOx 2007 Tonnage Reduction, based on the difference between the Past NOx Emission Rate and the Projected NOx Emission Rate, multiplied by the Projected brake horsepower hours for each affected engine, and considering credit according to subsection (1)(d) and (e) of this section; and

6. Provisions for monitoring, reporting, and recordkeeping.

(2) The Projected NOx Emission Rate in grams per brake horsepower-hour for each affected engine shall be included in a federally-enforceable permit.

Section 5. Compliance Demonstration. (1) Pursuant to the compliance plan required in Section 4, NOx emission reductions shall be calculated according to the following criteria:

(a) For an affected engine to which a control device is added, a combustion modification is made, or for reductions achieved pursuant to Section 4(1)(e) of this administrative regulation after September 30, 1997, the NOx emission reductions shall equal the difference between the Past NOx emission rate and the Projected NOx emission rate, multiplied by the Projected brake horsepower hours during the control period.

(b) For an affected engine that is removed from service after September 30, 1997, and the facility's operating capacity, in brake horsepower-hours, equivalent to the removed affected engine's projected utilization is replaced, in part or in total, during a control period:

1. By a NOx emitting device installed after September 30, 1997, the NOx emission reductions shall be the difference, in tons, between the removed affected engine's projected 2007 base emissions and the replacement device's seasonal potential to emit for the operating capacity, in brake horsepower-hours, equivalent to the portion of the removed affected engine's projected utilization that the device will replace, not to exceed 100 percent;

2. By a device that does not emit NOx installed after September 30, 1997, the NOx emission reductions shall be the removed affected engine's projected 2007 base emissions, multiplied by the percentage projected from utilization of the replacement device, not to exceed 100 percent; or

3. By a device that does not emit NOx, and a NOx emitting device is installed at the removed affected engine's facility after the date that the device that does not emit NOx was installed, the NOx emission reductions shall be the difference, in tons, between the removed affected engine's projected 2007 base emissions, and the NOx emitting device's seasonal potential to emit for its operating capacity, in tons, equivalent to the portion of the removed affected engine's projected utilization that it will replace, not to exceed 100 percent.

(2) The following shall not be considered NOx emission reductions for compliance with this administrative regulation:

(a) A restriction on an affected engine's hours of operation during a control period, including a prohibition from operating ;

(b) A NOx emission limitation enforceable by the cabinet placed upon an affected engine to which no control device was added, combustion modification made or for reductions achieved pursuant to Section 4(1)(e) after September 30, 1997;

(c) The removal of an affected engine from service if that affected engine is placed into service at another location within Kentucky; or

(d) NOx emission reductions achieved at a facility that is not owned or operated by the person responsible for demonstrating compliance with this administrative regulation.

(3) Demonstrability and enforceability of NOx emission reductions. NOx emission reductions, calculated in accordance with subsection (1)(a) or (b) of this section, shall be demonstrable and enforceable if:

(a) An hourly NOx emission limitation unit, grams per brake horsepower-hours, is included in a permit enforceable by the cabinet for the affected engine or replacement device that is to be operated during a control period;

(b) The hourly NOx emission limitation is equal to the hourly emission rate used to calculate the NOx potential to emit for the affected engine or replacement device in the compliance plan; and

(c) A performance test conducted in accordance with Section 6 of this administrative regulation determines that the affected engine or the replacement device is capable of complying with the hourly NOx emission limitation.

(4) NOx emission reductions achieved to comply with this administrative regulation shall not be considered creditable for compliance with any other applicable requirement and shall not be considered a contemporaneous emission decrease for the purposes of netting or offsets.

Section 6. Monitoring Requirements. An owner or operator of an affected engine shall:

(1) Complete an initial performance test according to the requirements codified in Appendix A to 40 C.F .R. Part 60, following the installation of emission controls required to achieve the emissions limit in Section 3(1) of this administrative regulation.

(2) Perform periodic monitoring to yield reliable data from the relevant time period that is representative of a source's compliance with the emissions limit in Section 3(1) of this administrative regulation. Periodic monitoring shall include either:

(a) Performance tests consistent with the requirements of Appendix A to 40 C.F.R. Part 60, or ·portable monitors using ASTM 06522-00;

(b) A parametric monitoring program that specifies operating parameters and their ranges that will provide that each affected engine's emissions are consistent with the provisions of Section 3 of this administrative regulation;

(c) A predictive emissions measurement system that relies on automated data collection from instruments; or

(d) A continuous emission monitoring system that complies with 40 C.F.R. Part 60 or Part 75.

Section 7. Recordkeeping Requirements. An owner or operator subject to this administrative regulation shall:

(1) Maintain all records necessary to demonstrate compliance with the provisions of this administrative regulation for a period of two (2) calendar years where the affected engine is located, and provide the records, upon request, to the cabinet and the U.S. EPA;

(2) Maintain the following records for each affected engine:

(a) Identification and location of each affected engine;
(b) Calendar date of record;
(c) Number of hours the affected engine is operated during each control period compared to the Projected Operating Hours;
(d) Type and quantity of fuel used; and
(e) Results of all compliance tests.

Section 8. Reporting Requirements. An owner or operator subject to the provisions of this administrative regulation shall submit the required reports, compliance plans, and compliance test results to:

(1) Manager, Permit Review Branch, Kentucky Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, (502) 573-3382; and

(2) The appropriate Regional Office of the Division for Air Quality as follows:

(a) Ashland Regional Office, 1550 Wolohan Drive, Suite 1, Ashland, Kentucky 41102, (606) 929-5285;

(b) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104, (270) 746-7475;

(c) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (859) 525-4923;

(d) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606) 435-6022;

(e) London Regional Office, 875 South Main Street, London, Kentucky 407 41, (606) 878-0157;

(f) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro, Kentucky 42303, (270) 687-7304; or

(g) Paducah Regional Office, 130 Eagle Nest Drive, Paducah, Kentucky 42003, (270) 898-8468.

Section 9. Incorporation by Reference. (1) "ASTM 06522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and process Heaters Using Portable Analyzers, Book of ASTM Standards, February 10, 2000 and April 2000,"· is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, (502) 573-3382, Monday through Friday, 8 a.m. to 4:30 p.m.

(3) Copies are available for sale from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania, 19428-2959, telephone (610) 832-9585, facsimile (610) 832-9555, and the Internet http://www.astm.org/.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	MAR 24, 2006	OCT 23, 2009	74 FR 53755

401 KAR 51:160. NOx requirements for large utility and industrial boilers.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

STATUTORY AUTHORITY: KRS 224.10-100(5), 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes requirements for the control of nitrogen oxides (NOx) emissions from large boilers and turbines used in power plants and other industrial applications, pursuant to the federal mandate published under the NOx SIP Call. This administrative regulation is not more stringent nor otherwise different than the provisions allowed under the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to NOx budget units that are electric generating units or industrial boilers or turbines, except as provided in Section 2 of this administrative regulation.

Section 2. Exemptions.

(1) Exemptions based on permit limitations. A NOx budget unit shall be exempt from Sections 3 to 7 of this administrative regulation if the owner or operator complies with this subsection.

(a) The source shall have a federally-enforceable permit issued by the cabinet containing conditions for the unit that:

1. Limit the unit’s NOx emissions during each control period beginning in 2004 to twenty-five (25) tons or less;

2. Restrict the unit to burning only natural gas or fuel oil during a control period in 2004 and each control period thereafter;

3. Restrict the unit's operation hours during each control period to the number calculated by dividing twenty-five (25) tons of potential NOx mass emissions by the unit's maximum potential hourly NOx mass emissions;

4. Require that the unit's potential NOx mass emissions shall be calculated pursuant to 40 C.F.R. 96.4(b)(1)(iii);

5. Require that the owner or operator of the unit shall retain at the source that includes the unit, for five (5) years, records demonstrating that the operating hours restriction,

the fuel use restriction, and the other requirements of the permit related to these restrictions were met; and

6. Require that, by November 1 of each year for which the unit is subject to the federally-enforceable permit, the owner or operator of the unit, through the authorized account representative, shall:

a. Secure and transfer to an account established pursuant to 401 KAR 51:19, NOx allowances for each control period in an amount equal to the NOx emission limitation (in tons of NOx) under subparagraphs 1 and 3 of this paragraph upon which the unit's exemption is based; and

b. Report to the cabinet the unit's hours of operation (treating any partial hour of operation as a whole hour of operation) and the number of NOx allowances transferred pursuant to clause a of this subparagraph.

(b) A unit with an exemption based on permit limitations shall become subject to all the applicable provisions of this administrative regulation and shall be treated as commencing commercial operation on September 30 of any control period for which:

1. The fuel use restriction in paragraph (a)2 of this subsection or the operating hours restriction in paragraph (a)3 of this subsection is removed from the unit's federally-enforceable permit or otherwise becomes no longer applicable; or

2. The unit does not comply with the restrictions of this subsection.

(c) Units exempted under this subsection shall not receive a NOx allowance allocation under Section 4 of this administrative regulation.

(d) By November 30 of each year beginning in 2004, the cabinet shall report to the U.S.EPA:

1. The total NOx emission limitation (in tons of NOx) for all units exempted under this subsection; and

2. The total NOx allowances reported to the cabinet pursuant to paragraph (a)6b of this subsection.

(e) For units exempted under this subsection, the cabinet shall notify the U.S. EPA, in writing:

1. Of permit changes that remove a limit or render it no longer applicable; and

2. Any violation of a permit limit imposed pursuant to paragraph (a) of this subsection.

(2) Retired unit exemption.

(a) A NOx budget unit shall be exempt from the requirements in Sections 3 to 7 of this administrative regulation on the date that the unit is permanently retired, if the following conditions are met:

1. Except as provided in paragraph (b) of this subsection, the retired unit shall not emit NOx on or after the day it is retired; and

2. Within thirty (30) days after the unit is retired, the NOx authorized account representative shall submit:

a. A letter to the cabinet and to the U.S. EPA describing the unit, the date of retirement, and the reason for retirement; and

b. An application for a permit revision that reflects the status of the retired unit pursuant to 401 KAR 52:020 or 401 KAR 52:030, as appropriate; and

3. Unless the unit has been physically removed, records to demonstrate that the unit has not been operated shall be:

a. Maintained on-site for five (5) years from the date of retirement; and

b. Made available to the cabinet or the U.S. EPA upon request.

(b) Operation of a retired unit shall not be resumed unless the owner or operator submits an application and receives a permit revision pursuant to 401 KAR 52:020 or 401 KAR 52:030, as appropriate, prior to commencing operation.

(c) A retired unit shall not be allowed to opt into 401 KAR 51:190, Banking and trading NOx allowances and shall not receive a NOx allowance allocation under Section 4 of this administrative regulation.

(d) NOx allowances made to a unit that later retires shall:

1. Remain with the unit until they are transferred or deducted; and

2. Cease to be allocated to the unit at the end of the allocation period.

(e) The cabinet shall notify the U.S. EPA, in writing, of units that are exempted under this subsection.

(3) Category exemption. A carbon monoxide boiler that is associated with fluidized catalytic cracking units (FCCU) at petroleum refineries shall be exempt from the requirements in Sections 3 to 7 of this administrative

regulation.

Section 3. Compliance Requirements.

(1) NOx budget emissions limitation requirements. Commencing with the later date of May 31, 2004, or the year the unit commences operation, the owner or operator of a NOx budget unit shall:

(a) Beginning May 1, 2003, and May 1 of each year thereafter, monitor the total NOx emissions during each control period as specified in 40 C.F.R. 96.70 to 96.76; and

(b) By November 30 of each year, hold NOx allowances available for compliance deductions in an amount at least equal to the total NOx emissions during the control period as specified in 401 KAR 51:190.

(2) NOx allowance provisions. NOx allowances shall be held in, deducted from, or transferred among the NOx compliance, overdraft, and general accounts as specified in 401 KAR 51:190 and this subsection.

(a) The NOx budget source shall establish a general account in the NOx allowance Tracking System (NATS) by submitting "EPA Form 7620-15, General Account information".

(b) NOx budget units shall transfer NOx allowances under the NOx Budget Trading Program from one (1) account to another in the NOx Allowance Tracking System (NATS) by submitting "EPA Form 7620-14".

(c) NOx allowances shall not be deducted for compliance with subsection (1) of this section for a control period prior to the year for which the NOx allowances were allocated.

(d) If the U.S. EPA records the allocation, transfer, or deduction of NOx allowances from the compliance or overdraft account of a NOx budget source, this action shall:

1. Automatically amend and become part of the NOx budget portion of the source’s permit; and

2. Require no further review.

(e) The owner or operator of a NOx budget unit having excess NOx emissions for each control period beginning in 2004, shall comply with 401 KAR 51:190.

(f) Allocated NOx allowances shall not constitute a property right.

(3) Recordkeeping and reporting requirements.

(a) The owner or operator of a NOx budget source shall maintain the following records:

1. The "Account Certificate of Representation" for the source's NOx authorized account representative;

2. Emissions monitoring information as specified in 40 C.F.R. 96.70 to 96.76;

3. Copies of all reports, compliance certifications, and other submissions and records required by 401 KAR 51:190; and

4. Copies of documents used to complete permit revision applications or to demonstrate compliance with 401 KAR 51:190.

(b) These records shall be:

1. Used to demonstrate compliance with subsection (1) of this section;

2. Maintained on site for a period of five (5) years, unless a longer period is required by 40 C.F.R. 96.70 to 96.76 or the cabinet or the U.S. EPA requires an extended period for cause; and

3. Made available for inspection on request by the cabinet or the U.S. EPA.

(4) Computation of time.

(a) A time period scheduled to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) A time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) If the final day of a time period falls on a weekend or state or federal holiday, the time period shall be extended to the next business day.

Section 4. Methodology for the Allocation and Sale of NOx Allowances. The number of NOx allowances to be allocated to each NOx budget unit by the cabinet and to be sold by the Commonwealth of Kentucky shall be determined pursuant to this section.

(1) The total number of NOx allowances shall be the number of NOx allowances assigned to Kentucky by the U.S. EPA and approved in Kentucky's State Implementation Plan (SIP).

(2) The total number of NOx allowances assigned to Kentucky shall be divided into separate pools as follows:

(a) The number of NOx allowances specified in Kentucky's approved SIP for electric generating units with:

1. Ninety-five (95) percent of this amount allocated for the 2004 to 2006 allocation period to units that commence commercial operation on or before May 1, 2001;

2. Five (5) percent of this amount for the 2004 to 2006 allocation period sold by the Commonwealth of Kentucky with the proceeds deposited in Kentucky's general fund;

3. Ninety-eight (98) percent of this amount allocated for each allocation period beginning with the 2007 to 2009 allocation period to units that commence commercial operation on or before May 1 of the year that is three (3) years before the first year of the applicable allocation period; and

4. Two (2) percent of this amount for each allocation period beginning with the 2007 to 2009 allocation period and each allocation period thereafter sold by the Commonwealth of Kentucky with the proceeds deposited in Kentucky's general fund; and

(b) The number of NOx allowances specified in Kentucky's approved SIP for industrial boilers or turbines with:

1. Ninety-eight (98) percent of this amount allocated for each allocation period to units that commence commercial operation on or before May 1 of the year that is three (3) years before the first year of the applicable allocation period; and

2. Two (2) percent of this amount allocated for each allocation period to NOx budget units that commence commercial operation after May 1 of the year that is three (3) years before the first year of the applicable allocation period and on or before May 1 of the applicable control period.

(3) The cabinet shall notify the U.S. EPA and NOx budget sources of the NOx allowances to be allocated and sold from the pools specified in subsection (2) of this section pursuant to Section 5(4) of this administrative regulation.

(4) For allocation of the pools specified in subsection (2)(a)1, 3 and (b) of this section, heat input, in MMBTU, of a NOx budget unit shall be determined from:

(a) The average of the two (2) highest amounts of the unit's heat input from the three (3) most recent control periods as determined in accordance with 40 C.F.R. Part 75 or 96.70 to 96.76 if the unit is subject to 40 C.F.R. Part 75; or

(b) The best available data reported to the cabinet for the unit if the unit is not otherwise subject to 40 C.F.R. Part 75.

(5) For electric generating units included in the pools specified in subsection (2)(a)1 and 3 of this section, the cabinet shall allocate NOx allowances to each NOx budget unit in an amount equal to the result obtained by:

(a) Multiplying 0.15 lb/MMBTU or the permit limit, whichever is less, by the heat input determined under Section 4(4) of this administrative regulation, rounded to the nearest whole NOx allowance as appropriate.

(b) If the initial total number of NOx allowances allocated for an allocation period to all NOx budget units in Kentucky included in the pools specified in subsection (2)(a)1 and 3 of this section does not equal ninety-five (95) percent for the 2004 to 2006 allocation period, or ninety-eight (98) percent for each allocation period thereafter, of the number of tons of NOx emissions in Kentucky's trading program budget apportioned to existing electric generating units, the cabinet shall:

1. Adjust the total number of NOx allowances allocated to all electric generating units in the applicable pool so that the total number of NOx allowances allocated equals ninety-five (95) percent for the 2004 to 2006 allocation period, or ninety-eight (98) percent for each allocation period thereafter, of the number of tons of NOx emissions in Kentucky's trading program budget apportioned to electric generating units; and

2. Make this adjustment by multiplying each unit's allocation by ninety-five (95) percent for the 2004 to 2006 allocation period, or ninety-eight (98) percent thereafter, of the number of tons of NOx emissions in Kentucky's trading program budget apportioned to electric generating units divided by the total number of NOx allowances allocated under paragraph (a) of this subsection, and rounding to the nearest whole NOx allowance as appropriate.

(6) For industrial boilers or turbines included in the pool specified in subsection (2)(b)1 of this section, the cabinet shall allocate NOx allowances to each NOx budget unit in an amount equal to the result obtained by:

(a) Multiplying 0.17 lb/MMBTU or the permit limit, whichever is less, by the heat input determined under subsection (4) of this section, rounded to the nearest whole NOx allowance as appropriate.

(b) If the initial total number of NOx allowances allocated for an allocation period to all NOx budget units in Kentucky included in the pool specified in subsection (2)(b)1 of this section does not equal ninety-eight (98) percent for each allocation period, of the number of tons of NOx emissions in Kentucky's trading program budget apportioned to existing industrial boilers or turbines, the cabinet shall:

1. Adjust the total number of NOx allowances allocated to all industrial boilers or turbines in the applicable pool so that the total number of NOx allowances allocated

equals ninety-eight (98) percent for each allocation period, of the number of tons of NOx emissions in Kentucky's trading program budget apportioned to industrial boilers or turbines; and

2. Make this adjustment by multiplying each unit's allocation by ninety-eight (98) percent, of the number of tons of NOx emissions in Kentucky's trading program budget apportioned to industrial boilers or turbines divided by the total number of NOx allowances allocated under paragraph (a) of this subsection, and rounding to the nearest whole NOx allowance as appropriate.

(7) (a) The Commonwealth of Kentucky shall establish an account pursuant to 401 KAR 51:190 for the purpose of selling the NOx allowances in the pools specified in subsection (2)(a)2 and 4 of this section. The proceeds from the sale of the NOx allowances shall be deposited in the general fund of the Commonwealth of Kentucky.

(b) For NOx budget units included in the pool specified in subsection (2)(b)2 of this section, the cabinet shall allocate NOx allowances to each unit according to the following procedures:

1. The cabinet shall establish one (1) allocation set-aside for each control period. Each allocation set-aside shall be allocated NOx allowances equal to two (2) percent for each control period of the tons of NOx emissions in Kentucky's trading program budget, rounded to the nearest whole NOx allowance as appropriate.

2. The NOx authorized account representative may submit to the cabinet a request, in writing, to be allocated NOx allowances starting with the control period during which the NOx budget unit commences commercial operation, or is projected to commence commercial operation, and ending with the control period preceding the control period for which it will receive an allocation under subsection (2)(b)1 of this section.

a. The NOx allowance allocation request shall be submitted prior to May 1 of the first control period for which the NOx allowance allocation is requested and after the date on which the cabinet issues a permit to construct to the NOx budget unit; and

b. For a control period, the NOx authorized account representative may request NOx allowances in an amount that does not exceed 0.17 lb/MMBTU or the permitted limit, whichever is less, multiplied by the NOx budget unit's maximum design heat input in MMBTU/hr multiplied by the number of hours remaining in the control period starting with the first day in the control period on which the unit operated or is projected to operate.

3. The cabinet shall review, and allocate NOx allowances pursuant to, each NOx allowance allocation request in the order that the requests are received by the cabinet

as of the close of business each day, with each consecutive day determining the order:

a. Upon receipt of the NOx allowance allocation request, the cabinet shall determine whether, and shall make any necessary adjustments to the request to ensure that the control period and the number of NOx allowances specified are consistent with the requirements of this subsection;

b. If the allocation set-aside for the control period for which NOx allowances are requested:

(i) Has an amount of NOx allowances not less than the number requested, as adjusted by the cabinet, the cabinet shall allocate the amount of the NOx allowances requested, as adjusted by the cabinet, to the NOx budget unit.

(ii) Has a smaller amount of NOx allowances than the number requested, as adjusted by the cabinet, the cabinet will deny in part the request and allocate only the remaining number of NOx allowances in the allocation set-aside to the NOx budget unit.

(iii) Once an allocation set-aside for a control period has been depleted of all NOx allowances, the cabinet shall deny, and shall not allocate any NOx allowances pursuant to a NOx allowance allocation request under which NOx allowances have not already been allocated for the control period.

4. Within sixty (60) days of receipt of a NOx allowance allocation request, the cabinet shall take appropriate action under this subsection and shall notify the U.S. EPA of the number of NOx allowances allocated for the control period to the NOx budget unit.

5. For a NOx budget unit that is allocated NOx allowances under this subparagraph, the U.S. EPA shall deduct NOx allowances to account for the actual utilization of the unit during the control period, and for any NOx allowances returned to Kentucky, the cabinet shall allocate to the NOx budget units in Kentucky using the following formula and rounding to the nearest whole NOx allowance as appropriate:

a. Unit's share of NOx allowances remaining in allocation set-aside equals total NOx allowances remaining in allocation set-aside multiplied by the quantity generated by dividing the unit's NOx allowance allocation by Kentucky's trading program budget excluding allocation set-aside;

b. If:

(i) Total NOx allowances remaining in allocation set-aside is the total number of NOx allowances remaining in the allocation set-aside for the control period to which the allocation set-aside applies;

(ii) Unit's NOx allowance allocation is the number of NOx allowances allocated under subsection (2)(b)2 of this section to the unit for the control period to which the allocation set-aside applies; and

(iii) State trading program budget excluding allocation set-aside is Kentucky's trading program budget for the control period to which the allocation set-aside applies multiplied by ninety-five (95) percent if the control period is in 2004, 2005, or 2006 or ninety-eight (98) percent if the control period is in any year thereafter, rounded to the nearest whole NOx allowance as appropriate.

(8) NOx allowances created pursuant to 401 KAR 51:180 for early reduction credits or emergency compliance shall not be included in the allocation or sale of the pools specified in this section.

Section 5. Allocation of NOx Allowances.

(1) The cabinet shall determine the number of NOx allowances to be allocated to eligible NOx budget units for the allocation period beginning in 2004 and in each subsequent allocation period using the method described in Section 4 of this administrative regulation.

(2) A NOx budget unit that commences commercial operation on or before May 1 of the year that is three (3) years before the first year of the applicable allocation period shall be included in the applicable allocation pool as specified in Section 4(2)(a)1, 3, or (b)1 of this administrative regulation.

(3) If the U.S. EPA changes the number of NOx allowances assigned to Kentucky before the end of an allocation period, the cabinet shall reallocate the NOx allowances prior to the beginning of the next control period in the same ratio as the original allocation for that period.

(4) The cabinet shall notify the U.S. EPA and NOx budget sources of the NOx allowances to be allocated and sold by the Commonwealth of Kentucky pursuant to this section and Section 4 of this administrative regulation:

(a) For units that commence commercial operation on or before May 1 of the year that is three (3) years before the first year of the applicable allocation period:

1. Not later than sixty (60) days after the effective date of this administrative regulation for the allocation period beginning in 2004; and

2. By April 1 of the year that is three (3) years prior to the next allocation period; and

(b) By April 1 of each year, beginning in 2004, for units in the pool specified in Section 4(2)(b)2 of this administrative regulation that commence commercial operation after May 1 of the year that is three (3) years before the first year of the applicable allocation period and on or before May 1 of the applicable control period.

(5) Excess NOx allowances may be banked and traded according to 401 KAR 51:190.

Section 6. Application for NOx Budget Permit or Permit Revision.

(1) The NOx authorized account representative of a NOx budget source shall submit an application to revise the source's permit pursuant to 401 KAR 52:020 or 401 KAR 52:030, as appropriate, and this section. For this purpose, the source shall use:

(a) "Forms DEP7007A1 to DD, Permit Application to Construct or Operate an Air Contaminant Source," as applicable. Forms DEP7007A1 to DD is incorporated by reference in 401 KAR 52:050; and

(b) "Form DEP7007EE, NOx Budget Permit Application".

(2) The application shall include the following information:

(a) The Office of Regulatory Information Systems (ORIS) or facility code assigned to the source by the Energy Information Administration;

(b) Identification of:

1. Each NOx budget unit at the source;

2. Each retired unit; and

3. Each unit exempted pursuant to Section 2(1) of this administrative regulation;

(c) A statement that explains if the unit is:

1. A unit described in Section 1 of this administration regulation; or

2. An opt-in unit pursuant to 401 KAR 51:195;

(d) The applicable requirements of Section 3 of this administrative regulation; and

(e) For opt-in units, the following certification statement signed by the NOx authorized account representative: "I certify that each unit for which this permit application is submitted, pursuant to the opt-in provisions of 401 KAR 51:195, is operating; is not a NOx budget unit pursuant to 401 KAR 51:160, Section 1; and is not covered by a retired exemption unit that

is in effect pursuant to 401 KAR 51:160, Section 2(2)."

Section 7. Compliance.

(1) Compliance certification. On or before November 30 each year, beginning in 2004, the NOx authorized account representative shall submit a compliance certification report to the cabinet and to the U.S. EPA pursuant to 401 KAR 51:190.

(2) Reporting to the cabinet. Reports that are required to be submitted to the cabinet shall be mailed to:

1. Manager, Permit Review Branch, Kentucky Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601; and

2. To the appropriate Regional Office of the Division for Air Quality listed in Section 8(2) of this administrative regulation.

Section 8. Incorporation by Reference.

(1) The following material is incorporated by reference:

(a) "Form DEP7007EE, NOx Budget Permit Application", May 2002;

(b) "EPA Form 7620-14, Allowance Transfer", United States Environmental Protection Agency, OMB No. 2060-0445;

(c) "EPA Form 7620-15, General Account Information", United States Environmental Protection Agency, OMB No. 2060-0445; and

(d) "EPA Form 7620-16, Account Certificate of Representation", United States Environmental Protection Agency, OMB No. 2060-0445.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the following offices of the Division for Air Quality, Monday through Friday, 8 a.m. to 4:30 p.m.:

(a) The Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, (502) 573-3382; and

(b) The appropriate regional office of the Division for Air Quality as follows:

1. Ashland Regional Office, 1550 Wolohan Drive, Suite 1, Ashland, Kentucky 41102, (606) 929-5285;

2. Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104, (270) 746-7475;

3. Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (859) 525-4923;

4. Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606) 435-6022;

5. London Regional Office, 875 South Main Street, London, Kentucky 40741, (606) 878-0157;

6. Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro, Kentucky 42303, (270) 687-7304; and

7. Paducah Regional Office, 130 Eagle Nest Drive, Paducah, Kentucky 42003, (270) 898-8468.

(3) (a) Copies of the Code of Federal Regulations (C.F.R.) and Federal Register (Fed. Reg.) are available for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

(b) Copies of Forms DEP7007EE-1 to EE-3 are available on the Internet at http://www.air.ky.gov/Permit+Application+Forms.htm. (27 Ky.R. 2606; Am. 3276; 28 Ky.R. 373; eff. 8-15-2001; 29 Ky.R. 540; 1605; eff. 12-18-02.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JAN 31, 2002	APR 11, 2002	67 FR 17624
1st Revision	FEB 28, 2003	JUN 24, 2003	68 FR 37418
2nd Revision	MAR 24, 2006	OCT 23, 2009	74 FR 53755

401 KAR 51:170. NOx requirements for cement kilns.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

STATUTORY AUTHORITY: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation provides for the regional control of nitrogen oxides (NOx) emissions from portland cement manufacturing plants pursuant to the federal mandate published under the NOx SIP Call. This administrative regulation is not more stringent nor otherwise different than the provisions allowed under the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to a portland cement manufacturing plant with process rates, on or after January 1, 1995, equal to or greater than:

(1) Twelve (12) tons of clinker per hour for a long dry kiln;

(2) Ten (10) tons of clinker per hour for a long wet kiln;

(3) Sixteen (16) tons of clinker per hour for a preheater kiln; or

(4) Twenty-two (22) tons of clinker per hour for a precalciner or preheater/precalciner kiln.

Section 2. Standard for Kilns.

(1) On and after May 31, 2004, the owner or operator of a kiln specified in Section 1 of this administrative regulation shall, during a control period,
operate the kiln so that NOx emissions do not exceed six and six-tenths (6.6) lbs per ton of clinker averaged over a thirty (30) day rolling period.

(2) The requirements in subsection (1) of this section shall not apply during:

(a) Periods of start-up, shutdown, or malfunction that do not exceed thirty-six (36)consecutive hours; and

(b) Regularly scheduled maintenance activities.

Section 3. Reporting, Monitoring, and Recordkeeping for Kilns.

(1) Reporting requirements. The owner or operator of a kiln specified in Section 1 of this administrative regulation shall submit the following reports to the cabinet at the locations specified in Section 4 of this administrative regulation:

(a) By May 31, 2004, a report that includes:

1. The number and types of kilns;

2. The name and address of the plant where the kilns are located; and

3. The name and telephone number of the person responsible for demonstrating that the kiln is in compliance.

(b) By October 31 each year, beginning in 2004, a report that documents the total Nox emissions from the kiln during the control period.

(2) Monitoring requirements. Beginning April 1, 2004, the owner or operator of a kiln specified in Section 1 of this administrative regulation shall monitor NOx emissions during each control period in accordance with provisions in 40 CFR 96.70 to 96.76.

(3) Recordkeeping requirements. An owner or operator of a kiln specified in Section 1 of this administrative regulation shall maintain all records necessary to demonstrate compliance with the standards in Section 2 of this administrative regulation for a period of two (2) years. These records shall:

(a) Be kept at the facility where the kiln is located;

(b) Be made available to the cabinet or the U.S. EPA upon request; and

(c) Contain the following information:

1. Emissions, in pounds of NOx per ton of clinker, from the kiln;

2. The results of all performance tests;

3. Daily production records; and

4. The date, time, and duration of all startups, shutdowns, or malfunctions in the operation of the kiln or emissions monitoring equipment.

Section 4. Reporting to the Cabinet. Reports required to be submitted to the cabinet shall be mailed to:

(1) Manager, Permit Review Branch, Kentucky Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601; and

(2) To the appropriate Regional Office of the Division for Air Quality as follows:

(a) Ashland Regional Office, 3700 Thirteenth Street, Ashland, Kentucky 41105, (606) 920-2067;

(b) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104, (270) 746-7475;

(c) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (859) 525-4923;

(d) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606) 435-6022;

(e) London Regional Office, 875 South Main Street, London, Kentucky 40741, (606) 878-0157;

(f) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro, Kentucky 42303, (270) 687-7304; and

(g) Paducah Regional Office, 4500 Clarks River Road, Paducah, Kentucky 42003, (270) 898-8468. (27 Ky.R. 2609; Am. 3281; eff. 8-15-2001.)

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Original Reg	JAN 31, 2002	APR 11, 2002	67 FR 17624

401 KAR 51:180. NOx credits for early reduction and emergency.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96 , 42 USC 7410

STATUTORY AUTHORITY: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation provides for the distribution of NOx allowances from a compliance supplement pool allocated to Kentucky by the U.S. EPA for sources that reduce nitrogen oxides (NOx)emissions before the compliance deadline of the federal mandate published under the Nox SIP Call. It also provides for setting aside unused credits to assist sources that are unable to meet the compliance deadline. This administrative regulation is not more stringent nor otherwise different than the provisions allowed under the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to a NOx budget unit in Kentucky.

Section 2. Procurement and Use of Early Reduction Credits (ERCs).

(1) ERCs may be earned for reductions in NOx emissions achieved during the 2001, 2002, and 2003 control
periods.

(2) NOx allowances given for earned ERCs may be deducted for compliance with NOx emission standards in 401 KAR 51:160 only during the 2004 and 2005 control periods.

(3) ERCs shall not be earned for emission reductions made to satisfy requirements under the Clean Air Act.

Section 3. The Compliance Supplement Pool.

(1) The compliance supplement pool shall be divided into separate pools (utility and industry) based on the ratio of the NOx emission reductions required from each group to the total reductions required from both groups multiplied by the number of ERCs in the compliance supplement pool as specified in the Kentucky State Implementation Plan (SIP).

(2) The utility pool shall be further divided into separate annual allocations as follows:

(a) Twenty (20) percent of the utility pool to be allocated for NOx emission reductions achieved in 2001;

(b) Thirty (30) percent of the utility pool to be allocated for NOx emission reductions achieved in 2002; and

(c) Fifty (50) percent of the utility pool to be allocated for NOx emission reductions achieved in 2003.

(3) The entire industry pool shall be available for distribution beginning in 2002 and shall be allocated annually through 2004 for NOx emission reductions achieved in 2001, 2002, and 2003 or until all available NOx allowances are allocated.

(4) Unrequested NOx allowances from the previous year shall be made available in the applicable pool for the next annual allocation.

Section 4. Methodology for Determining Allocation of ERCs.

(1) The annual allocation of ERCs shall be made based on the actual NOx emission reductions achieved for each NOx budget unit during the 2001, 2002, and 2003 control periods compared to the unit’s baseline NOx emission rate during the 2000 control period.

(2) Baseline emissions shall be determined using the procedures in 40 CFR 96.70 to 96.76.

(3) ERCs shall be granted only for NOx emission reductions that are monitored pursuant to Section 6 of this administrative regulation and reported pursuant to Section 7 of this administrative regulation.

(4) An ERC shall be granted for each ton of NOx emission reduction achieved below 0.45 lbs/MMBTU or the average NOx emission rate (in lbs/MMBTU) from the baseline control period in 2000, whichever is less.

(5) ERCs shall be rounded to the nearest whole number and distributed in the form of one (1) NOx allowance for one (1) ton of NOx emission reduction.

(6) If the requests for ERCs exceeds the maximum NOx allowances available for distribution in the applicable pool for an annual allocation, the cabinet shall distribute the ERCs on a proportional basis using the following calculation: the NOx budget unit's allocated ERCs shall equal the unit's NOx emission reductions determined pursuant to subsection (3) of this section divided by the total NOx emission reductions from all units in the applicable pool multiplied by the ERCs available for distribution in that pool.

(7) NOx allowances shall be distributed annually on or before May 1 of each year for the previous year's NOx emission reductions beginning in 2002 and ending in 2004.

(8) The cabinet shall notify the U.S. EPA of the final allocation on or before May 31, 2004.

Section 5. NOx Credits for Emergency Use. After allocations are made pursuant to Section 4 of this

administrative regulation for 2001, 2002, and 2003, credits that remain in the compliance supplement pools shall be used by the cabinet to assist sources that are unable to meet the compliance deadline in 401 KAR 51:160 according to the following restrictions:

(1) ERCs remaining in the utility pool shall only be used to assist electric generating units and ERCs remaining in the industry pool shall only be used to assist industrial boilers or turbines.

(2) Credits shall be issued by the cabinet to extend the compliance deadline only for sources that meet the following conditions:

(a) Electric generating units for which meeting the compliance deadline would seriously jeopardize the reliability of the electric supply, and for which it was not feasible to import electricity from other sources in order to meet the deadline;

(b) Industrial boilers and turbines for which meeting the compliance deadline would create an undue risk comparable to that for utility sources in paragraph (a) of this subsection; and

(c) Sources able to demonstrate that it was not possible to acquire sufficient Nox allowances to meet the compliance deadline by:

1. Generating ERCs;

2. Acquiring ERCs from other sources; or

3. Acquiring NOx allowances from the NOx Budget Trading Program.

(3) Allowances shall be allocated, based upon need, in 2004 and 2005.

(4) A public hearing shall take place before allowances are allocated.

Section 6. Monitoring Requirements.

(1) Monitoring shall be performed on a NOx budget unit for which early reduction credit is to be obtained during the 2000 control period and each subsequent control period during which NOx emission reductions will occur.

(2) Units shall be monitored in accordance with 40 CFR 96.70 to 96.76.

Section 7. Reporting Requirements.

(1) The owner or operator of a NOx budget source
that achieves early reductions pursuant to this administrative regulation shall submit a report to the cabinet on or before January 30 of each year following the year in which reductions were achieved for the years of 2001, 2002, and 2003, documenting the actual NOx emission reductions achieved by each NOx budget unit during each control period compared to the unit's actual emissions during the 2000 control period. These

reports shall contain the following information, for each NOx budget unit:

(a) Identification and location of the unit that achieved NOx emission reductions;

(b) The maximum design heat input for the unit, expressed in MMBTU/hr;

(c) For the 2000 control period and each control period during which NOx emission reductions are achieved:

1. The total hours of operation;

2. The total NOx emissions, in tons;

3. The average NOx emission rate, in lbs/MMBTU;

4. The maximum allowable NOx emission rate, based on the most stringent applicable requirement, in lbs/MMBTU; and

5. Calculations showing the tons of NOx emission reductions below 0.45 lbs/MMBTU or the average NOx emission rate (in lbs/MMBTU) from the baseline season, whichever is less.

(2) The report required in subsection (1) of this section shall be signed by the owner or operator of the NOx budget source and submitted to:

(a) Manager, Permit Review Branch, Kentucky Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601; and

(b) The appropriate regional office of the Division for Air Quality as follows:

1. Ashland Regional Office, 3700 Thirteenth Street, Ashland, Kentucky 41105, (606) 920-2067;

2. Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104,(270) 746-7475;
3. Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence,Kentucky 41042, (859) 525-4923;

4. Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606) 435-6022;

5. London Regional Office, 875 South Main Street, London, Kentucky 40741, (606)878-0157;

6. Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro,Kentucky 42303, (270) 687-7304; or

7. Paducah Regional Office, 4500 Clarks River Road, Paducah, Kentucky 42003, (270)898-8468. (27 Ky.R. 2611; Am. 3283; 28 Ky.R. 377; eff. 8-15-2001.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JAN 31, 2002	APR 11, 2002	67 FR 17624

401 KAR 51:190. Banking and trading NOx allowances.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

STATUTORY AUTHORITY: KRS 224.10-100, 224.20-100, 224.20.110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation incorporates by reference the federal regulation that establishes a program for banking and trading of emission allowances to reduce nitrogen oxides (NOx) emissions under the federal NOx SIP Call. This administrative regulation is not more stringent nor otherwise different than the provisions of the federal mandate.

Section 1. For purposes of 40 CFR 96.10 to 96.14, 96.30, 96.31, 96.50 to 96.55 (b), 96.56 to 96.57, 96.60 to 96.62:

(1) The administrator shall be the Administrator of the U.S. EPA;

(2) The permitting authority shall be the cabinet;

(3) The citations, Subpart E and 40 CFR 96.42(e) shall be 401 KAR 51:160, NOx requirements for large utility and industrial boilers; and

(4) The citation Subpart I shall be 401 KAR 51:195, NOx opt-in provisions.

Section 2. Applicability. NOx budget units shall comply with the following requirements, which are incorporated by reference in Section 3 of this administrative regulation:

(1) 40 CFR 96.10 to 96.14;

(2) 40 CFR 96.30 to 96.31;

(3) 40 CFR 96.50 to 96.55(b) and 96.56 to 96.57; and

(4) 40 CFR 96.60 to 96.62.

Section 3. Incorporation by Reference.

(1) The following material is incorporated by reference:

(a) 40 CFR 96.10 to 96.14, "NOx Authorized Account Representative for NOx Budget Sources," as published in the Code of Federal Regulations, 40 CFR Part 96, July 1, 1999;

(b) 40 CFR 96.30 to 96.31, "Compliance Certification," as published in the Code of Federal Regulations, 40 CFR Part 96, July 1, 1999;

(c) 40 CFR 96.50 to 96.55(b) and 96.56 to 96.57, "NOx Allowance Tracking System," as published in the Code of Federal Regulations, 40 CFR Part 96, July 1, 1999; and

(d) 40 CFR 96.60 to 96.62, "NOx Allowance Transfers," as published in the Code of Federal Regulations, 40 CFR Part 96, July 1, 1999.

(2) This material may be inspected, copied, or obtained at the following offices of the Division for Air Quality, Monday through Friday, 8 a.m. to 4:30 p.m.:

(a) The Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, (502)573-3382;

(b) Ashland Regional Office, 3700 Thirteenth Street, Ashland, Kentucky 41105, (606)920-2067;

(c) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104, (270) 746-7475;

(d) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (859) 525-4923;

(e) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606)435-6022;

(f) London Regional Office, 875 South Main Street, London, Kentucky 40741, (606)-878-0157;

(g) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro, Kentucky 42303, (270) 687-7304; and

(h) Paducah Regional Office, 4500 Clarks River Road, Paducah, Kentucky, 42003 (270)898-8468.

(3) Copies of the Code of Federal Regulations (CFR) and the Federal Register (Fed. Reg.)are available for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (27 Ky.R. 2611; Am. 3285; eff. 8-15-2001.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JAN 31, 2002	APR 11, 2002	67 FR 17624

401 KAR 51:195. NOx opt-in provisions.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410, 7661

STATUTORY AUTHORITY: KRS 224.10-100, 224.20-100, 224.20.110, 224.20-120, 40 CFR 51.121 as amended at 65 FR 11222 (March 2, 2000), 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 USC 7410, 7661

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. The federal regulation incorporated by reference in this administrative regulation establishes provisions for individual sources to opt into the NOx Budget Trading Program. This administrative regulation is not more stringent nor otherwise different than the provisions of the federal mandate.

Section 1. For purposes of 40 CFR 96.80 to 96.88:

(1) The administrator shall be the Administrator of the U.S. EPA;

(2) The permitting authority shall be the cabinet;

(3) The citations Subpart E, 96.4, 96.5, and 96.42, shall be 401 KAR 51:160;

(4) The citations 96.20, 96.21(c), 96.22, and 96.23, shall be 401 KAR Chapter 52; and

(5) The citation Subparts A through H shall be 401 KAR 51:001, 51:160, 51:170, 51:180, and 51:190.

Section 2. Applicability. Units that opt into the NOx Budget Trading Program shall comply with the requirements of 40 CFR 96.80 to 96.88, which is incorporated by reference in Section 3 of this administrative regulation.

Section 3. Incorporation by Reference.

(1) 40 CFR 96.80 to 96.88, "Individual Unit Opt-ins," as published in the Code of Federal Regulations, 40 CFR Part 96, July 1, 1999, is incorporated by reference.

(2) This material may be inspected, copied, or obtained at the following offices of the Division for Air Quality, Monday through Friday, 8 a.m. to 4:30 p.m.:

(a) The Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky, 40601, (502) 573-3382;

(b) Ashland Regional Office, 3700 Thirteenth Street, Ashland, Kentucky, 41105, (606)920-2067;

(c) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky, 42104, (270) 746-7475;

(d) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky, 41042, (859) 525-4923;

(e) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky, 41701, (606)435-6022;

(f) London Regional Office, 875 South Main Street, London, Kentucky, 40741, (606)-878-0157;

(g) Owensboro Regional Office, 3032 Alvey Park Drive, W., Suite 700, Owensboro, Kentucky, 42303, (270) 687-7304; and

(h) Paducah Regional Office, 4500 Clarks River Road, Paducah, Kentucky, 42003, (270)898-8468.

(3) Copies of the Code of Federal Regulations (CFR) and the Federal Register (Fed. Reg)are available for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (27 Ky.R. 2614; Am. 3286; eff. 8-15-2001.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JAN 31, 2002	APR 11, 2002	67 FR 17624

401 KAR 51:210 CAIR NOx annual trading program.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11-75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 U.S.C. 7410

STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes requirements for the control of nitrogen oxides (NOx) emissions from large boilers and turbines used in power plants, pursuant to the federal mandate published under the Clean Air Interstate Rule (CAIR), 40 C.F.R. 96.101 to 96.188. This administrative regulation is not more stringent than the provisions allowed under the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to CAIR NOx units In Kentucky that are subject to 40 C.F.R. 96.104.

Section 2. Compliance Requirements. CAIR NOx units shall comply with the following requirements:

(1) 40 C.F.R. 96.101 to 96.108 (Subpart AA), "CAIR NOx Annual Trading Program General Provisions";

(2) 40 C.F .R. 96.110 to 96.115 (Subpart BB), "CAIR Designated Representative for CAIR NOx Sources";
(3) 40 C.F .R. 96.120 to 96.124 (Subpart CC), "Permits";
(4) 40 C.F.R. 96.150 to 96.157 (Subpart FF), "CAIR NOx Allowance Tracking System";
(5) 40 C.F.R. 96.160 to 96.162 (Subpart GG), "CAIR NOx Allowance Transfers";
(6) 40 C.F .R. 96.170 to 96.175 (Subpart HH), "Monitoring and Reporting"; and
(7) 40 C.F.R. 96.180 to 96.188 (Subpart II), "CAIR NOx Opt-in Units".

Section 3. Methodology for the Allocation and Sale of CAIR NOx Annual Allowances. The number of CAIR NOx allowances to be allocated to each CAIR NOx unit by the cabinet and to be sold by the Commonwealth of Kentucky shall be determined pursuant to this section.

(1) The total number of CAIR NOx allowances shall be:

(a) For the 2009 through 2014 control periods, 83,205 tons, as specified in 40 C.F.R. 96.140; and
(b) For the 2015 control periods and thereafter, 69,337 tons, as specified in 40

C.F.R. 96.140.

(2) The total number of CAIR NOx allowances assigned to Kentucky shall be divided into separate pools as follows:
(a) Ninety-eight (98) percent of this amount allocated for each control period to units that commence commercial operation before:

1. January 1, 2006, for the control periods 2009, 2010, 2011, 2012, 2013, and 2014;

2. January 1, 2009, for the control period 2015; and

3. Thereafter, January 1 of the year that is six (6) years before the first year of the next control period; and

(b) Two (2) percent of this amount for each control period sold by the Commonwealth of Kentucky with the proceeds deposited into Kentucky's general fund.

(3) For each CAIR NOx unit, the baseline heat input or adjusted control period heat input in mmBtu shall be determined and shall be used to determine CAIR NOx allowances for the pool specified in subsection (2)(a) of this section as follows:
(a) For CAIR NOx units commencing operation before January 1, 2001, and

1. Operating each calendar year during a period of five (5) or more consecutive years, The baseline heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for 2001 through 2005; or

2. For units not having operated each calendar year for a period of five (5) or more Consecutive years, the baseline heat input shall be established during the next allocation period when the unit has five (5) consecutive years of operation, using the average of the three (3) highest amounts of the unit's adjusted control period heat input for the most recent five (5) consecutive years of operation;

(b) For units commencing operation on or after January 1, 2001, and operating each Calendar year during a period of five (5) or more consecutive years, the baseline heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for the most recent five (5) consecutive years of operation; or

(c) For units that have not operated each calendar year during a period of five (5) or More consecutive years, the baseline heat input shall not be established. For purposes of allocations, the heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for the previous five (5) years of operation, the:

1 . Adjusted control period heat input for a control period of not operating shall equal zero; and

2. Cabinet shall allocate GAIR NOx allowances for the unit.

(4) The adjusted control period heat input for each year shall be calculated as follows:

(a) If the unit is coal-fired during the year, the unit's control period heat input for that year shall be multiplied by 100 percent;
(b) If the unit is oil-fired during the year, the unit's control period heat input for that year shall be multiplied by sixty (60) percent; and
(c) If the unit is not subject to paragraphs (a) or (b) of this subsection, the unit's control period heat input for that year shall be multiplied by forty (40) percent.

(5) For a calendar year, the unit's control period heat input and the unit's status as coal-fired or oil-fired shall be determined:
(a) In accordance with 40 C.F.R. Part 75, if the unit is subject to 40 C.F.R. Part 75;
(b) By the best available data reported to the cabinet for the unit if the unit is not Otherwise subject to 40 C.F.R. Part 75; or
(c) By the best available data obtained by the cabinet.

(6) For GAIR NOx units included in the pool specified in subsection (2)(a) of this section, the cabinet shall allocate GAIR NOx allowances to each GAIR NOx unit in an amount equal to the result obtained by:
(a) Multiplying the total amount of GAIR NOx allowances specified in subsection (2)(a) of this section by the baseline heat input for each unit or the heat input established under subsection (3)(c) of this section;
(b) Dividing by the total amount of baseline heat input and the heat input established Under subsection (3)(c) of this section for all applicable CAIR NOx units; and
(c) Rounding to the nearest whole CAIR NOx allowance, as appropriate.

(7) The cabinet shall submit to the U.S. EPA and GAIR NOx sources the CAIR NOx allowances to be allocated and sold from the pools specified in subsection (2) of this section in a format prescribed by the U.S. EPA by:
(a) October 31, 2006, for the control periods in 2009, 2010, 2011, 2012, 2013, and 2014;
(b) October 31, 2009, for control period 2015; and
(c) October 31 of each year thereafter, for the control period in the sixth year after the year of the applicable deadline for submission under this paragraph.

Section 4. Compliance Supplement Pool. The GAIR designated representative may request early reduction credits and the allocation of GAIR NOx allowances from the compliance supplement pool established under 40 C.F.R. 96.143(a) for any CAIR NOx unit in the Commonwealth that achieves emission reductions in 2007 or 2008 or in both years when compared to the unit's NOx emission rate during

the 2005 control period. Only emission reductions achieved in 2007 or 2008 or in both years that are not necessary to comply with any state or federal emissions limitation applicable during 2007 and 2008 may be used to request early reduction credits as specified in this section.

(1) The owners and operators of the CAIR NOx unit shall monitor and report the NOx emissions rate and the heat input of the unit in accordance with 40 C.F.R. 96.170 to 96.175 in each control period for which the early reduction is requested and for the 2005 control period. The difference resulting from subtracting the applicable 2007 or 2008 control period NOx emission rate from the 2005 control period NOx emission rate multiplied by the applicable 2007 or 2008 control period heat
input divided by 2000, shall provide the amount in tons of the early reduction credit request.

(2) The CAIR designated representative shall submit to the cabinet by July 1, 2009, a request for allocation of an amount of CAIR NOx allowances from the compliance supplement pool:

(a) Not exceeding the sum of the amounts, in tons, of the unit's NOx emission reductions in 2007 and 2008 that are not necessary to comply with any state or federal emissions limitation applicable during the years, determined in accordance with 40 C.F.R. 96.170 to 96.175; or

(b) Not exceeding the minimum amount of CAIR NOx allowances necessary to remove undue
risk to the reliability of electricity supply.

(3) To request allocations pursuant to subsection (2)(b) of this section, the CAIR designated representative shall demonstrate that, in the absence of allocation of an amount of CAIR NOx allowances requested, the unit's compliance with CAIR NOx emissions limitation for the control period in 2009 would create an undue risk to the reliability of electricity supply during the control period. This demonstration shall include a showing that the owners and operators cannot feasibly obtain a sufficient amount of:

(a) Electricity from other electricity generating facilities during the installation of control technology at the unit for compliance with the CAIR NOx emissions limitation to prevent undue risk; or
(b) CAIR NOx allowances in accordance with this section, or otherwise, to prevent undue risk.

(4) Early reduction credits shall be rounded to the nearest whole number and distributed in the form of one (1) NOx allowance for one (1) ton of NOx emission reduction.

(5) The cabinet shall distribute the early reduction credits on a proportional basis.
(a) The total amount of early reduction credit available to a CAIR NOx unit shall be determined by the following calculation:

1. The unit's baseline heat input determined in Section 3(3)(a)1 of this administrative regulation;
2. Divided by the total amount baseline heat input from all sources pursuant to Section 3(3)(a)1 of this administrative regulation; and
3. Multiplied by the early reduction credits available pursuant to 40 C.F.R. 96.143(a).

(b) The unused early reduction credits shall be combined together and distributed pro rata to those CAIR

NOx units with early reduction credits that exceeded the amount of credits made available by the cabinet pursuant to paragraph (a) of this subsection by the following calculation:

1. The applicable unit's emission reductions that exceeded the credits made available pursuant to paragraph (a) of this subsection;
2. Divided by the total NOx emission reductions that exceeded the credits provided under paragraph (a) of this subsection from all applicable units;
3. Multiplied by the total number of unused early reduction credits.

(c) Early reduction credits provided under paragraph (b) of this subsection shall not cause the early reduction credits allocated to the source to exceed the number of early reduction credits requested.

(6) By November 30, 2009, the cabinet shall determine and submit to the U.S. EPA the allocations under this section.

(7) By January 1, 2010, the U.S. EPA shall record the allocations submitted under subsection (6) of this section.

Section 5. Sale of CAIR NOx Allowances by the Commonwealth of Kentucky. (1) The Commonwealth of Kentucky shall establish an account pursuant to 40 C.F.R. 96.151(b) for the purpose of selling the CAIR NOx allowances in the pool specified in Section 3(2)(b) of this administrative regulation.

(2) The proceeds from the sale of the CAIR NOx allowances shall be deposited in the general fund of the Commonwealth of Kentucky.

(33 Ky.R. 1015; Am. 1611; 1798; eff. 2-2-2007.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JUL 19, 2007	OCT 4, 2007	72 FR 56623

401 KAR 51 :220. CAIR NOx ozone season trading program.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11-75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, 42 U.S.C. 7410

STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) authorizes the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes requirements for the control of nitrogen oxides (NOx) emissions from large boilers and turbines used in power plants and other industrial applications, pursuant to the federal mandate published under the Clean Air Interstate Rule (CAIR), 40 C.F.R. 96.301 to 96.388. This administrative regulation is not more stringent than the provisions allowed under the federal mandate.

Section 1. Applicability. This administrative regulation shall apply to:

(1) CAIR NOx Ozone Season units in Kentucky subject to 40 C.F.R. 96.304;
(2) A new or existing industrial boiler or turbine; or
(3) A new or existing electric generating unit including a fossil fuel-fired boiler, a combustion turbine, or a combined cycle system:

(a) Serving a generator with a nameplate capacity greater than twenty-five (25) megawatts of electricity; and

(b) Offering some electricity for sale.

Section 2. Compliance Requirements. CAIR NOx Ozone Season units shall comply with the following requirements:

(1) 40 C.F.R. 96.301 to 96.308 (Subpart AAAA), "CAIR NOx Ozone Season Trading Program General Provisions";
(2) 40 C.F.R. 96.310 to 96.315 (Subpart BBBB), "CAIR Designated Representative for CAIR NOx Ozone Season Sources";
(3) 40 C.F.R. 96.320 to 96.324 (Subpart CCCC), "Permits";
(4) 40 C.F.R. 96.350 to 96.357 (Subpart FFFF), "CAIR NOx Ozone Season Allowance Tracking System";
(5) 40 C.F.R. 96.360 to 96.362 (Subpart GGGG), "CAIR NOx Ozone Season Allowance Transfers";
(6) 40 C.F.R. 96.370 to 96.375 (Subpart HHHH), "Monitoring and Reporting"; and
(7) 40 C.F.R. 96.380 to 96.388 (Subpart 1111), "CAIR NOx Ozone Season Opt-in Units".

Section 3. Methodology for the Allocation of CAIR NOx Ozone Season Allowances. The number of CAIR NOx Ozone Season allowances to be allocated to each CAIR NOx Ozone Season unit by the cabinet and to be sold by the Commonwealth of Kentucky shall be determined pursuant to this section.

(1) The total number of CAIR NOx Ozone Season allowances shall be as follows:

(a) For the 2009 through 2014 control periods, 36, 109 tons, which includes 36,045 tons as specified in 40 C.F.R. 96.340, and sixty-four (64) allowances previously allocated under 401 KAR 51:160 for units specified in Section 1 (2) of this administrative regulation; and
(b) For the 2015 control periods and thereafter, 30,651 tons, which includes 30,587 tons as specified in 40 C.F.R. 96.340 and sixty-four (64) allowances previously allocated under 401 KAR 51: 160 for units specified in Section 1 (2) of this administrative regulation.

(2) The total number of CAIR NOx Ozone Season allowances assigned to Kentucky shall be divided into separate pools as follows:

(a) Ninety-eight (98) percent of the total number of allowances shall be allocated for each control period to units that commence operation or commence commercial operation before:

1. January 1, 2006, for the control periods 2009, 2010, 2011, 2012, 2013, and 2014;
2. January 1, 2009, for the 2015 control period; and
3. Thereafter, before January 1 of the year that is six (6) years before the next control period; and

(b) Two (2) percent of the total number of allowances for each control period shall be sold by the Commonwealth of Kentucky in accordance with Section 4 of this administrative regulation.

(3) For each CAIR NOx Ozone Season unit, the baseline heat input or adjusted control period heat input in mmBtu shall be determined and shall be used to determine CAIR NOx Ozone Season allowances for the pool specified in subsection (2) of this section as follows:

(a) For CAIR NOx Ozone Season units commencing operation or commencing commercial operation before January 1, 2001, and:

1. Operating each calendar year during a period of five (5) or more consecutive years, the baseline heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for 2001 through 2005;or
2. For units not having operated each calendar year for a period of five (5) or more consecutive years, the baseline heat input shall be established during the next allocation period after the unit has five (5) consecutive years of operation, using the average of the three (3) highest amounts of the unit's adjusted control period heat input for the most recent five (5) consecutive years of operation;

(b) For CAIR NOx Ozone Season units commencing operation or commencing commercial operation on or after January 1, 2001, and operating each calendar year during a period of five (5) or more consecutive years, the baseline heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input over the most recent consecutive five (5) years of operation; or

(c) For CAIR NOx Ozone Season units that have not operated each calendar year during a

period of five (5) or more consecutive years, the baseline heat input shall not be established. For purposes of allocations, the heat input shall be the average of the three (3) highest amounts of the unit's adjusted control period heat input for the previous five (5) years of operation, the:

1. Adjusted control period heat input for a control period of not operating shall equal zero; and
2. Cabinet shall allocate CAIR NOx Ozone Season allowances for the unit.

(4) The adjusted control period heat input for each ozone season shall be calculated for CAIR NOx Ozone Season units specified in subsection (2)(a) of this section as follows:

(a) If the unit is coal-fired during the year, the unit's control period heat input for that year shall be multiplied by 100 percent;
(b) If the unit is oil-fired during the year, the unit's control period heat input for that year shall be multiplied by sixty (60) percent; and
(c) If the unit is not subject to paragraphs (a) or (b) of this subsection, the unit's control period heat input for that year shall be multiplied by forty (40) percent.

(5) The adjusted control period heat input for CAIR NOx Ozone Season units specified in subsection (2)(b) of this section shall equal the unit's control period heat input multiplied by 100 percent.

(6) For an ozone season, the unit's control period heat input and the unit's status as coal-fired or oil-fired shall be determined:

(a) In accordance with 40 C.F.R. Part 75, if the unit is subject to 40 C.F.R. Part 75;
(b) By the best available data reported to the cabinet for the unit if the unit is not otherwise subject to 40 C.F.R. Part 75; or
(c) By the best available data obtained by the cabinet.

(7) For CAIR NOx Ozone Season units included in the pool specified in subsection (2)(a) of this section, the cabinet shall allocate CAIR NOx Ozone Season allowances to each CAIR NOx Ozone Season unit in an amount equal to the result obtained by:

(a) Multiplying the total amount of CAIR NOx Ozone Season allowances specified in subsection (2)(a) of this section by the baseline heat input for each unit or the heat input established under subsection (3)(c) of this section;
(b) Dividing by the total amount of baseline heat input and the heat input established under subsection (3)(c) of this section for all applicable CAIR NOx Ozone Season units; and
(c) Rounding to the nearest whole CAIR NOx Ozone Season allowance, as appropriate.

(8) The cabinet shall submit to the U.S. EPA the CAIR NOx Ozone Season allowances to be allocated and sold from the pools specified in subsection (2) of this section in a format prescribed by the U.S. EPA by:

(a) October 31, 2006, for the control periods in 2009, 2010, 2011, 2012, 2013, and 2014;
(b) October 31, 2009, for the control period 2015; and

(c) October 31 of each year thereafter, for the control period in the sixth year after the year of the applicable deadline for submission.

Section 4. Sale of CAIR NOx Allowances by the Commonwealth of Kentucky.

(1) The Commonwealth of Kentucky shall establish an account pursuant to 40 C.F.R. 96.351(b) for the purpose of selling the CAIR NOx Ozone Season allowances in the pool specified in Section 3(2)(b) of this administrative regulation.

(2) The proceeds from the sale of the CAIR NOx Ozone Season allowances shall be deposited in the general fund of the Commonwealth of Kentucky.

(33 Ky.R. 1018; Am. 1614; 1799; eff. 2-2-2007; eff. 6-13-2007.)

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JUL 19, 2007	OCT 4, 2007	72 FR 56623

401 KAR 51 :230. CAIR 502 trading program.

RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R. 51.124, 51.125, 73, 74, 77, 78, Part 96, 42 U.S.C. 7410

STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7410

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the Environmental and Public Protection Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation establishes the provisions of the CAIR S02 Trading Program as codified at 40 C.F.R. 96.201 to 96.288 for applicable sources located in the Commonwealth of Kentucky.

Section 1. Applicability. This administrative regulation shall apply to CAIR S02 sources and CAIR S02 units under the CAIR S02 Trading Program located in Kentucky that are subject to 40 C.F.R. 96.204.

Section 2. Compliance requirements. CAIR S02 sources and CAIR S02 units shall comply with the following requirements:

(1) 40 C.F.R. 96.201 to 96.208 (Subpart AAA), "CAIR S02 Trading Program General Provisions";

(2) 40 C.F.R. 96.210 to 96.215 (Subpart BBB), "CAIR Designated Representative for CAIR S02 Sources";

(3) 40 C.F .R. 96.220 to 96.224 (Subpart CCC), "Permits";

(4) 40 C.F.R. 96.250 to 96.257 (Subpart FFF), "CAIR S02 Allowance Tracking System";

(5) 40 C.F.R. 96.260 to 96.262 (Subpart GGG), "CAIR S02 Allowance Transfers";

(6) 40 C.F.R. 96.270 to 96.275 (Subpart HHH), "Monitoring and Reporting"; and

(7) 40 C.F.R. 96.280 to 96.288 (Subpart 111), "CAIR S02 Opt-in Units".

(33 Ky.R. 1020; Am. 1617; eff. 2-2-2007.)

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