

Table 2b to Appendix A of Subpart A—Data Elements for Reporting Emissions From Point, Nonpoint, Onroad Mobile and Nonroad Mobile Sources, Where Required by 40 CFR 51.30—Continued

Data elements	Point	Nonpoint	Onroad	Nonroad
(16) Percent Control Measures Reduction Efficiency (where applicable)		Y		
(17) Percent Control Approach Effectiveness (where applicable)		Y		

[73 FR 76552, Dec. 17, 2008, as amended at 80 FR 8796, Feb. 19, 2015]

### Subparts B-E [Reserved]

# Subpart F—Procedural Requirements

AUTHORITY: 42 U.S.C. 7401, 7411, 7412, 7413, 7414, 7470–7479, 7501–7508, 7601, and 7602.

#### §51.100 Definitions.

As used in this part, all terms not defined herein will have the meaning given them in the Act:

- (a) Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 91–604, 84 Stat. 1676 Pub. L. 95–95, 91 Stat., 685 and Pub. L. 95–190, 91 Stat., 1399.)
- (b) Administrator means the Administrator of the Environmental Protection Agency (EPA) or an authorized representative.
- (c) Primary standard means a national primary ambient air quality standard promulgated pursuant to section 109 of the Act.
- (d) Secondary standard means a national secondary ambient air quality standard promulgated pursuant to section 109 of the Act.
- (e) National standard means either a primary or secondary standard.
- (f) Owner or operator means any person who owns, leases, operates, controls, or supervises a facility, building, structure, or installation which directly or indirectly result or may result in emissions of any air pollutant for which a national standard is in effect.
- (g) Local agency means any local government agency other than the State agency, which is charged with responsibility for carrying out a portion of the plan.

- (h) Regional Office means one of the ten (10) EPA Regional Offices.
- (i) State agency means the air pollution control agency primarily responsible for development and implementation of a plan under the Act.
- (j) *Plan* means an implementation plan approved or promulgated under section 110 of 172 of the Act.
  - (k) Point source means the following:
- (1) For particulate matter, sulfur oxides, carbon monoxide, volatile organic compounds (VOC) and nitrogen dioxide—
- (i) Any stationary source the actual emissions of which are in excess of 90.7 metric tons (100 tons) per year of the pollutant in a region containing an area whose 1980 *urban place* population, as defined by the U.S. Bureau of the Census, was equal to or greater than 1 million.
- (ii) Any stationary source the actual emissions of which are in excess of 22.7 metric tons (25 tons) per year of the pollutant in a region containing an area whose 1980 *urban place* population, as defined by the U.S. Bureau of the Census, was less than 1 million; or
- (2) For lead or lead compounds measured as elemental lead, any stationary source that actually emits a total of 4.5 metric tons (5 tons) per year or more.
- (1) Area source means any small residential, governmental, institutional, commercial, or industrial fuel combustion operations; onsite solid waste disposal facility; motor vehicles, aircraft vessels, or other transportation facilities or other miscellaneous sources identified through inventory techniques similar to those described in the "AEROS Manual series, Vol. II AEROS User's Manual," EPA-450/2-76-029 December 1976.
- (m) *Region* means an area designated as an air quality control region (AQCR) under section 107(c) of the Act.

### **Environmental Protection Agency**

- (n) Control strategy means a combination of measures designated to achieve the aggregate reduction of emissions necessary for attainment and maintenance of national standards including, but not limited to, measures such as:
  - (1) Emission limitations.
- (2) Federal or State emission charges or taxes or other economic incentives or disincentives.
- (3) Closing or relocation of residential, commercial, or industrial facilities.
- (4) Changes in schedules or methods of operation of commercial or industrial facilities or transportation systems, including, but not limited to, short-term changes made in accordance with standby plans.
- (5) Periodic inspection and testing of motor vehicle emission control systems, at such time as the Administrator determines that such programs are feasible and practicable.
- (6) Emission control measures applicable to in-use motor vehicles, including, but not limited to, measures such as mandatory maintenance, installation of emission control devices, and conversion to gaseous fuels.
- (7) Any transportation control measure including those transportation measures listed in section 108(f) of the Clean Air Act as amended.
- (8) Any variation of, or alternative to any measure delineated herein.
- (9) Control or prohibition of a fuel or fuel additive used in motor vehicles, if such control or prohibition is necessary to achieve a national primary or secondary air quality standard and is approved by the Administrator under section 211(c)(4)(C) of the Act.
- (o) Reasonably available control technology (RACT) means devices, systems, process modifications, or other apparatus or techniques that are reasonably available taking into account:
- (1) The necessity of imposing such controls in order to attain and maintain a national ambient air quality standard:
- (2) The social, environmental, and economic impact of such controls; and
- (3) Alternative means of providing for attainment and maintenance of such standard. (This provision defines RACT for the purposes of §51.341(b) only.)

- (p) Compliance schedule means the date or dates by which a source or category of sources is required to comply with specific emission limitations contained in an implementation plan and with any increments of progress toward such compliance.
- (q) *Increments of progress* means steps toward compliance which will be taken by a specific source, including:
- (1) Date of submittal of the source's final control plan to the appropriate air pollution control agency;
- (2) Date by which contracts for emission control systems or process modifications will be awarded; or date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification:
- (3) Date of initiation of on-site construction or installation of emission control equipment or process change;
- (4) Date by which on-site construction or installation of emission control equipment or process modification is to be completed; and
- (5) Date by which final compliance is to be achieved.
- (r) Transportation control measure means any measure that is directed toward reducing emissions of air pollutants from transportation sources. Such measures include, but are not limited to, those listed in section 108(f) of the Clean Air Act.
- (s) Volatile organic compounds (VOC) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.
- (1) This includes any such organic compound other than the following, which have been determined to have negligible photochemical reactivity: methane; ethane; methylene chloride (dichloromethane); 1.1.1-trichloroethane (methyl chloroform); trichloro-1,2,2-trifluoroethane (CFC-113); trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12): chlorodifluoromethane (HCFC-22): trifluoromethane (HFC-23); 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115): 2,2-dichloroethane 1,1,1-trifluoro (HCFC-123): 1,1,1,2-tetrafluoroethane

(HFC-134a); 1,1-dichloro 1-fluoroethane (HCFC-141b); 1-chloro 1.1difluoroethane (HCFC-142b); 2-chloro-(HCFC-124); 1,1,1,2-tetrafluoroethane (HFC-125); 1,1,2,2pentafluoroethane tetrafluoroethane (HFC-134); 1,1,1trifluoroethane (HFC-143a); 1.1-(HFC-152a); difluoroethane parachlorobenzotrifluoride (PCBTF): cyclic, branched, or linear completely siloxanes; methylated acetone: perchloroethylene (tetrachloroethylene); 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-1,3-dichloro-1,1,2,2,3-225ca): pentafluoropropane (HCFC-225cb); 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee); difluoromethane (HFC-32); ethylfluoride (HFC-161); 1,1,1,3,3,3hexafluoropropane (HFC-236fa): 1,1,2,2,3-pentafluoropropane (HFC-1,1,2,3,3-pentafluoropropane 245ca): (HFC-245ea); 1,1,1,2,3pentafluoropropane (HFC-245eb); 1,1,1,3,3-pentafluoropropane (HFC-1,1,1,2,3,3-hexafluoropropane (HFC-236ea); 1,1,1,3,3-pentafluorobutane (HFC-365mfc); chlorofluoromethane (HCFC-31); chloro-1-fluoroethane (HCFC-151a); 1,2-dichloro-1,1,2trifluoroethane (HCFC-123a): 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane  $(C_4F_9OCH_3 \text{ or HFE-7100});$  2-(difluoromethoxymethyl)-1,1,1,2,3,3,3heptafluoropropane  $((CF_3)_2CFCF_2OCH_3);$ 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane HFE-7200); (C<sub>4</sub>F<sub>0</sub>OC<sub>2</sub>H<sub>5</sub> or (ethoxydifluoromethyl)-1,1,1,2,3,3,3heptafluoropropane ((CF<sub>3</sub>)<sub>2</sub>CFCF<sub>2</sub>OC<sub>2</sub>H<sub>5</sub>); methyl acetate; 1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (n-C3F7OCH3, HFE-7000); ethoxy-1,1,1,2,3,4,4,5,5,6,6,6dodecafluoro-2-(trifluoromethyl) (HFE-7500); 1,1,1,2,3,3,3heptafluoropropane (HFC 227ea); methyl formate (HCOOCH3); 1,1,1,2,2,3,4,5,5,5decafluoro-3-methoxy-4trifluoromethyl-pentane (HFE-7300); propylene carbonate; dimethyl carbonate; *trans*-1,3,3,3-tetrafluoropropene; HCF2OCF2H (HFE-134); HCF2OCF2OCF2H (HFE-236ca12): HCF2OCF2CF2OCF2H (HFE-338pcc13); HCF<sub>2</sub>OCF<sub>2</sub>OCF<sub>2</sub>CF<sub>2</sub>OCF<sub>2</sub>H (H-Galden 1040x or H-Galden ZT 130 (or 150 or 180)); trans 1-chloro-3,3,3-trifluoroprop-1-ene: 2,3,3,3-tetrafluoropropene;

amino-2-methyl-1-propanol; t-butyl acetate; and perfluorocarbon compounds which fall into these classes:

- (i) Cyclic, branched, or linear, completely fluorinated alkanes;
- (ii) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
- (iii) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- (iv) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (2) For purposes of determining compliance with emissions limits, VOC will be measured by the test methods in the approved State implementation plan (SIP) or 40 CFR part 60, appendix A, as applicable. Where such a method also measures compounds with negligible photochemical reactivity, these negligibility-reactive compounds may be excluded as VOC if the amount of such compounds is accurately quantified, and such exclusion is approved by the enforcement authority.
- (3) As a precondition to excluding these compounds as VOC or at any time thereafter, the enforcement authority may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the enforcement authority, the amount of negligibly-reactive compounds in the source's emissions.
- (4) For purposes of Federal enforcement for a specific source, the EPA shall use the test methods specified in the applicable EPA-approved SIP, in a permit issued pursuant to a program approved or promulgated under title V of the Act, or under 40 CFR part 51, subpart I or appendix S, or under 40 CFR parts 52 or 60. The EPA shall not be bound by any State determination as to appropriate methods for testing or monitoring negligibly-reactive compounds if such determination is not reflected in any of the above provisions.
  - (5) [Reserved]
- (6) For the purposes of determining compliance with California's aerosol coatings reactivity-based regulation, (as described in the California Code of

Regulations, Title 17, Division 3, Chapter 1, Subchapter 8.5, Article 3), any organic compound in the volatile portion of an aerosol coating is counted towards that product's reactivity-based limit. Therefore, the compounds identified in paragraph (s) of this section as negligibly reactive and excluded from EPA's definition of VOCs are to be counted towards a product's reactivity limit for the purposes of determining compliance with California's aerosol coatings reactivity-based regulation.

- (7) For the purposes of determining compliance with EPA's aerosol coatings reactivity based regulation (as described in 40 CFR part 59-National Volatile Organic Compound Emission Standards for Consumer and Commercial Products) any organic compound in the volatile portion of an aerosol coating is counted towards the product's reactivity-based limit, as provided in 40 CFR part 59, subpart E. Therefore, the compounds that are used in aerosol coating products and that are identified in paragraphs (s)(1) or (s)(5) of this section as excluded from EPA's definition of VOC are to be counted towards a product's reactivity limit for the purposes of determining compliance with EPA's aerosol coatings reactivity-based national regulation, as provided in 40 CFR part 59, subpart E.
  - (t)-(w) [Reserved]
- (x) Time period means any period of time designated by hour, month, season, calendar year, averaging time, or other suitable characteristics, for which ambient air quality is estimated.
- (y) Variance means the temporary deferral of a final compliance date for an individual source subject to an approved regulation, or a temporary change to an approved regulation as it applies to an individual source.
- (z) Emission limitation and emission standard mean a requirement established by a State, local government, or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

- (aa) Capacity factor means the ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.
- (bb) *Excess emissions* means emissions of an air pollutant in excess of an emission standard.
- (cc) Nitric acid plant means any facility producing nitric acid 30 to 70 percent in strength by either the pressure or atmospheric pressure process.
- (dd) Sulfuric acid plant means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.
- (ee) Fossil fuel-fired steam generator means a furnance or bioler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.
- (ff) Stack means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.
- (gg) A stack in existence means that the owner or operator had (1) begun, or caused to begin, a continuous program of physical on-site construction of the stack or (2) entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed within a reasonable time.
- (hh)(1) Dispersion technique means any technique which attempts to affect the concentration of a pollutant in the ambient air by:
- (i) Using that portion of a stack which exceeds good engineering practice stack height:
- (ii) Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or
- (iii) Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other

selective handling of exhaust gas streams so as to increase the exhaust gas plume rise.

- (2) The preceding sentence does not include:
- (i) The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream;
- (ii) The merging of exhaust gas streams where:
- (A) The source owner or operator demonstrates that the facility was originally designed and constructed with such merged gas streams;
- (B) After July 8, 1985 such merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion from the definition of dispersion techniques shall apply only to the emission limitation for the pollutant affected by such change in operation; or
- (C) Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to the merging, the reviewing agency shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source owner or operator that merging was not significantly motivated by such intent, the reviewing agency shall deny credit for the effects of such merging in calculating the allowable emissions for the source:
- (iii) Smoke management in agricultural or silvicultural prescribed burning programs:
- (iv) Episodic restrictions on residential woodburning and open burning; or
- (v) Techniques under §51.100(hh)(1)(iii) which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur

dioxide from the facility do not exceed 5,000 tons per year.

- (ii) Good engineering practice (GEP) stack height means the greater of:
- (1) 65 meters, measured from the ground-level elevation at the base of the stack:
- (2)(i) For stacks in existence on January 12, 1979, and for which the owner or operator had obtained all applicable permits or approvals required under 40 CFR parts 51 and 52.

 $H_g = 2.5H$ ,

provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation:

(ii) For all other stacks,

 $H_g = H + 1.5L$ 

where:

- $H_{\rm g}$  = good engineering practice stack height, measured from the ground-level elevation at the base of the stack,
- H = height of nearby structure(s) measured from the ground-level elevation at the base of the stack.
- L = lesser dimension, height or projected width, of nearby structure(s)

provided that the EPA, State or local control agency may require the use of a field study or fluid model to verify GEP stack height for the source; or

- (3) The height demonstrated by a fluid model or a field study approved by the EPA State or local control agency, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures or nearby terrain features.
- (jj) Nearby as used in §51.100(ii) of this part is defined for a specific structure or terrain feature and
- (1) For purposes of applying the formulae provided in §51.100(ii)(2) means that distance up to five times the lesser of the height or the width dimension of a structure, but not greater than 0.8 km (½ mile), and
- (2) For conducting demonstrations under  $\S51.100(ii)(3)$  means not greater than 0.8 km (½ mile), except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to 10 times the

maximum height  $(H_t)$  of the feature, not to exceed 2 miles if such feature achieves a height  $(H_t)$  0.8 km from the stack that is at least 40 percent of the GEP stack height determined by the formulae provided in  $\S51.100(ii)(2)(ii)$  of this part or 26 meters, whichever is greater, as measured from the ground-level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

(kk) *Excessive concentration* is defined for the purpose of determining good engineering practice stack height under §51.100(ii)(3) and means:

(1) For sources seeking credit for stack height exceeding that established under §51.100(ii)(2) a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash. wakes, or eddy effects and which contributes to a total concentration due to emissions from all sources that is greater than an ambient air quality standard. For sources subject to the prevention of significant deterioration program (40 CFR 51.166 and 52.21), an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and greater than a prevention of significant deterioration increment. The allowable emission rate to be used in making demonstrations under this part shall be prescribed by the new source performance standard that is applicable to the source category unless the owner or operator demonstrates that this emission rate is infeasible. Where such demonstrations are approved by the authority administering the State implementation plan, an alternative emission rate shall be established in consultation with the source owner or operator.

(2) For sources seeking credit after October 11, 1983, for increases in existing stack heights up to the heights established under §51.100(ii)(2), either (i) a maximum ground-level concentration due in whole or part to downwash, wakes or eddy effects as provided in paragraph (kk)(1) of this section, except that the emission rate specified by any applicable State implementation plan (or, in the absence of such a limit, the actual emission rate) shall be used, or (ii) the actual presence of a local nuisance caused by the existing stack. as determined by the authority administering the State implementation

(3) For sources seeking credit after January 12, 1979 for a stack height determined under §51.100(ii)(2) where the authority administering the State implementation plan requires the use of a field study or fluid model to verify GEP stack height, for sources seeking stack height credit after November 9, 1984 based on the aerodynamic influence of cooling towers, and for sources seeking stack height credit after December 31, 1970 based on the aerodynamic influence of structures not adequately represented by the equations in §51.100(ii)(2), a maximum ground-level concentration due in whole or part to downwash, wakes or eddy effects that is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

### (ll)-(mm) [Reserved]

(nn) Intermittent control system (ICS) means a dispersion technique which varies the rate at which pollutants are emitted to the atmosphere according to meteorological conditions and/or ambient concentrations of the pollutant, in order to prevent ground-level concentrations in excess of applicable ambient air quality standards. Such a dispersion technique is an ICS whether used alone, used with other dispersion techniques, or used as a supplement to continuous emission controls (i.e., used as a supplemental control system).

(00) Particulate matter means any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.

(pp) Particulate matter emissions means 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 this chapter, or by a test method specified in an approved State implementation plan.

(qq)  $PM_{10}$  means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on appendix J of part 50 of this chapter and designated in accordance with part 53 of this chapter or by an equivalent method designated in accordance with part 53 of this chapter.

(rr)  $PM_{10}$  emissions means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternative method, specified in this chapter or by a test method specified in an approved State implementation plan.

(ss) Total suspended particulate means particulate matter as measured by the method described in appendix B of part 50 of this chapter.

[51 FR 40661, Nov. 7, 1986]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §51.100, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

### §51.101 Stipulations.

Nothing in this part will be construed in any manner:

(a) To encourage a State to prepare, adopt, or submit a plan which does not provide for the protection and enhancement of air quality so as to promote the public health and welfare and productive capacity.

(b) To encourage a State to adopt any particular control strategy without taking into consideration the costeffectiveness of such control strategy in relation to that of alternative control strategies.

- (c) To preclude a State from employing techniques other than those specified in this part for purposes of estimating air quality or demonstrating the adequacy of a control strategy, provided that such other techniques are shown to be adequate and appropriate for such purposes.
- (d) To encourage a State to prepare, adopt, or submit a plan without taking into consideration the social and economic impact of the control strategy set forth in such plan, including, but not limited to, impact on availability of fuels, energy, transportation, and employment.
- (e) To preclude a State from preparing, adopting, or submitting a plan which provides for attainment and maintenance of a national standard through the application of a control strategy not specifically identified or described in this part.
- (f) To preclude a State or political subdivision thereof from adopting or enforcing any emission limitations or other measures or combinations thereof to attain and maintain air quality better than that required by a national standard
- (g) To encourage a State to adopt a control strategy uniformly applicable throughout a region unless there is no satisfactory alternative way of providing for attainment and maintenance of a national standard throughout such region

[61 FR 30163, June 14, 1996]

### §51.102 Public hearings.

(a) Except as otherwise provided in paragraph (c) of this section and within the 30 day notification period as required by paragraph (d) of this section, States must provide notice, provide the opportunity to submit written comments and allow the public the opportunity to request a public hearing. The State must hold a public hearing or provide the public the opportunity to request a public hearing. The notice announcing the 30 day notification period must include the date, place and time of the public hearing. If the State provides the public the opportunity to request a public hearing and a request is received the State must hold the scheduled hearing or schedule a public hearing (as required by paragraph (d) of this section). The State may cancel the public hearing through a method it identifies if no request for a public hearing is received during the 30 day notification period and the original notice announcing the 30 day notification period clearly states: If no request for a public hearing is received the hearing will be cancelled; identifies the method and time for announcing that the hearing has been cancelled; and provides a contact phone number for the public to call to find out if the hearing has been cancelled. These requirements apply for adoption and submission to EPA of:

- (1) Any plan or revision of it required by §51.104(a).
- (2) Any individual compliance schedule under (§51.260).
  - (3) Any revision under §51.104(d).
- (b) Separate hearings may be held for plans to implement primary and secondary standards.
- (c) No hearing will be required for any change to an increment of progress in an approved individual compliance schedule unless such change is likely to cause the source to be unable to comply with the final compliance date in the schedule. The requirements of §§51.104 and 51.105 will be applicable to such schedules, however.
- (d) Any hearing required by paragraph (a) of this section will be held only after reasonable notice, which will be considered to include, at least 30 days prior to the date of such hearing(s):
- (1) Notice given to the public by prominent advertisement in the area affected announcing the date(s), time(s), and place(s) of such hearing(s);
- (2) Availability of each proposed plan or revision for public inspection in at least one location in each region to which it will apply, and the availability of each compliance schedule for public inspection in at least one location in the region in which the affected source is located;
- (3) Notification to the Administrator (through the appropriate Regional Office):
- (4) Notification to each local air pollution control agency which will be significantly impacted by such plan, schedule or revision;
- (5) In the case of an interstate region, notification to any other States in-

cluded, in whole or in part, in the regions which are significantly impacted by such plan or schedule or revision.

- (e) The State must prepare and retain, for inspection by the Administrator upon request, a record of each hearing. The record must contain, as a minimum, a list of witnesses together with the text of each presentation.
- (f) The State must submit with the plan, revision, or schedule, a certification that the requirements in paragraph (a) and (d) of this section were met. Such certification will include the date and place of any public hearing(s) held or that no public hearing was requested during the 30 day notification period.
- (g) Upon written application by a State agency (through the appropriate Regional Office), the Administrator may approve State procedures for public hearings. The following criteria apply:
- (1) Procedures approved under this section shall be deemed to satisfy the requirement of this part regarding public hearings.
- (2) Procedures different from this part may be approved if they—
- (i) Ensure public participation in matters for which hearings are reouired; and
- (ii) Provide adequate public notification of the opportunity to participate.
- (3) The Administrator may impose any conditions on approval he or she deems necessary.

[36 FR 22938, Nov. 25, 1971, as amended at 65 FR 8657, Feb. 22, 2000; 72 FR 38792, July 16, 2007]

# §51.103 Submission of plans, preliminary review of plans.

(a) The State makes an official plan submission to EPA only when the submission conforms to the requirements of appendix V to this part and the State delivers the submission to EPA through one of the three following methods: An electronic submission through EPA's eSIP submission system; one paper submission to the appropriate Regional Office with an exact duplicate electronic version, preferably in a word searchable format; or three paper submissions. Any State submission under this part, whether through the eSIP submission system or in paper

copy form, will serve as the official submission.

- (b) Upon request by a State, the Administrator will work with the State to provide preliminary review of a plan or portion thereof submitted in advance of the date such plan is due. Such requests must be made to the appropriate Regional Office, and must indicate changes (such as redline/ strikethrough) to the existing approved plan where applicable, and be submitted using a format agreed upon by the State and Regional Office. Requests for preliminary review do not relieve a State of the responsibility of adopting and submitting plans in accordance with prescribed due dates.
- (c) In addition to conforming to the requirements of appendix V to this part for complete SIP submissions, the EPA requests that the state consult with the appropriate Regional Office regarding any additional guidance for submitting a plan to EPA.

[80 FR 7340, Feb. 10, 2015]

### §51.104 Revisions.

- (a) States may revise the plan from time to time consistent with the requirements applicable to implementation plans under this part.
- (b) The States must submit any revision of any regulation or any compliance schedule under paragraph (c) of this section to the Administrator no later than 60 days after its adoption.
- (c) EPA will approve revisions only after applicable hearing requirements of §51.102 have been satisfied.
- (d) In order for a variance to be considered for approval as a revision to the State implementation plan, the State must submit it in accordance with the requirements of this section.

 $[51~{\rm FR}~40661,~{\rm Nov.}~7,~1986,~{\rm as}~{\rm amended}~{\rm at}~61~{\rm FR}~16060,~{\rm Apr.}~11,~1996]$ 

### §51.105 Approval of plans.

Revisions of a plan, or any portion thereof, will not be considered part of an applicable plan until such revisions have been approved by the Administrator in accordance with this part.

[51 FR 40661, Nov. 7, 1986, as amended at 60 FR 33922, June 29, 1995]

### Subpart G—Control Strategy

SOURCE: 51 FR 40665, Nov. 7, 1986, unless otherwise noted.

# §51.110 Attainment and maintenance of national standards.

- (a) Each plan providing for the attainment of a primary or secondary standard must specify the projected attainment date.
  - (b)-(f) [Reserved]
- (g) During developing of the plan, EPA encourages States to identify alternative control strategies, as well as the costs and benefits of each such alternative for attainment or maintenance of the national standard.

 $[51~{\rm FR}~40661~{\rm Nov.}~7,\,1986,\,{\rm as~amended~at}~61~{\rm FR}~16060,\,{\rm Apr.}~11,\,1996;\,61~{\rm FR}~30163,\,{\rm June}~14,\,1996]$ 

## § 51.111 Description of control measures.

Each plan must set forth a control strategy which includes the following:

- (a) A description of enforcement methods including, but not limited to:
- (1) Procedures for monitoring compliance with each of the selected control measures,
- (2) Procedures for handling violations, and
- (3) A designation of agency responsibility for enforcement of implementation.
  - (b) [Reserved]

[51 FR 40665, Nov. 7, 1986, as amended at 60 FR 33922, June 29, 1995]

### §51.112 Demonstration of adequacy.

- (a) Each plan must demonstrate that the measures, rules, and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements.
- (1) The adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in appendix W of this part (Guideline on Air Quality Models).
- (2) Where an air quality model specified in appendix W of this part (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model



- (1) Specify two or more stages of episode criteria such as those set forth in appendix L to this part, or their equivalent:
- (2) Provide for public announcement whenever any episode stage has been determined to exist; and
- (3) Specify adequate emission control actions to be taken at each episode stage. (Examples of emission control actions are set forth in appendix L.)
- (b) Each contingency plan for a Priority I region must provide for the following:
- (1) Prompt acquisition of forecasts of atmospheric stagnation conditions and of updates of such forecasts as frequently as they are issued by the National Weather Service.
- (2) Inspection of sources to ascertain compliance with applicable emission control action requirements.
- (3) Communications procedures for transmitting status reports and orders as to emission control actions to be taken during an episode stage, including procedures for contact with public officials, major emission sources, public health, safety, and emergency agencies and news media.
- (c) Each plan for a Priority IA and II region must include a contingency plan that meets, as a minimum, the requirements of paragraphs (b)(1) and (b)(2) of this section. Areas classified Priority III do not need to develop episode plans.
- (d) Notwithstanding the requirements of paragraphs (b) and (c) of this section, the Administrator may, at his discretion—
- (1) Exempt from the requirements of this section those portions of Priority I, IA, or II regions which have been designated as attainment or unclassifiable for national primary and secondary standards under section 107 of the Act; or
- (2) Limit the requirements pertaining to emission control actions in Priority I regions to—
- (i) Urbanized areas as identified in the most recent United States Census, and
- (ii) Major emitting facilities, as defined by section 169(1) of the Act, outside the urbanized areas.

#### §51.153 Reevaluation of episode plans.

- (a) States should periodically reevaluate priority classifications of all Regions or portion of Regions within their borders. The reevaluation must consider the three most recent years of air quality data. If the evaluation indicates a change to a higher priority classification, appropriate changes in the episode plan must be made as expeditiously as practicable.
  - (b) [Reserved]

# Subpart I—Review of New Sources and Modifications

SOURCE: 51 FR 40669, Nov. 7, 1986, unless otherwise noted.

## § 51.160 Legally enforceable procedures.

- (a) Each plan must set forth legally enforceable procedures that enable the State or local agency to determine whether the construction or modification of a facility, building, structure or installation, or combination of these will result in—
- (1) A violation of applicable portions of the control strategy; or
- (2) Interference with attainment or maintenance of a national standard in the State in which the proposed source (or modification) is located or in a neighboring State.
- (b) Such procedures must include means by which the State or local agency responsible for final decisionmaking on an application for approval to construct or modify will prevent such construction or modification if—
- (1) It will result in a violation of applicable portions of the control strategy; or
- (2) It will interfere with the attainment or maintenance of a national standard.
- (c) The procedures must provide for the submission, by the owner or operator of the building, facility, structure, or installation to be constructed or modified, of such information on—
- (1) The nature and amounts of emissions to be emitted by it or emitted by associated mobile sources;
- (2) The location, design, construction, and operation of such facility, building, structure, or installation as

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may be necessary to permit the State or local agency to make the determination referred to in paragraph (a) of this section.

- (d) The procedures must provide that approval of any construction or modification must not affect the responsibility to the owner or operator to comply with applicable portions of the control strategy.
- (e) The procedures must identify types and sizes of facilities, buildings, structures, or installations which will be subject to review under this section. The plan must discuss the basis for determining which facilities will be subject to review.
- (f) The procedures must discuss the air quality data and the dispersion or other air quality modeling used to meet the requirements of this subpart.
- (1) All applications of air quality modeling involved in this subpart shall be based on the applicable models, data bases, and other requirements specified in appendix W of this part (Guideline on Air Quality Models).
- (2) Where an air quality model specified in appendix W of this part (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific State program. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in §51.102.

[51 FR 40669, Nov. 7, 1986, as amended at 58 FR 38822, July 20, 1993; 60 FR 40468, Aug. 9, 1995; 61 FR 41840, Aug. 12, 1996]

# § 51.161 Public availability of information.

(a) The legally enforceable procedures in §51.160 must also require the State or local agency to provide opportunity for public comment on information submitted by owners and operators. The public information must include the agency's analysis of the effect of construction or modification on ambient air quality, including the

agency's proposed approval or disapproval.

- (b) For purposes of paragraph (a) of this section, opportunity for public comment shall include, as a minimum—
- (1) Availability for public inspection in at least one location in the area affected of the information submitted by the owner or operator and of the State or local agency's analysis of the effect on air quality. This requirement may be met by making these materials available at a physical location or on a public Web site identified by the State or local agency;
- (2) A 30-day period for submittal of public comment; and
- (3) A notice by prominent advertisement in the area affected of the location of the source information and analysis specified in paragraph (b)(1) of this section.
- (c) Where the 30-day comment period required in paragraph (b) of this section would conflict with existing requirements for acting on requests for permission to construct or modify, the State may submit for approval a comment period which is consistent with such existing requirements.
- (d) A copy of the notice required by paragraph (b) of this section must also be sent to the Administrator through the appropriate Regional Office, and to all other State and local air pollution control agencies having jurisdiction in the region in which such new or modified installation will be located. The notice also must be sent to any other agency in the region having responsibility for implementing the procedures required under this subpart. For lead, a copy of the notice is required for all point sources. The definition of point for lead is given in §51.100(k)(2).

[51 FR 40669, Nov. 7, 1986, as amended at 81 FR 71629, Oct. 18, 2016]

# §51.162 Identification of responsible agency.

Each plan must identify the State or local agency which will be responsible for meeting the requirements of this subpart in each area of the State. Where such responsibility rests with an agency other than an air pollution control agency, such agency will consult with the appropriate State or local air

pollution control agency in carrying out the provisions of this subpart.

#### § 51.163 Administrative procedures.

The plan must include the administrative procedures, which will be followed in making the determination specified in paragraph (a) of §51.160.

### §51.164 Stack height procedures.

Such procedures must provide that the degree of emission limitation required of any source for control of any air pollutant must not be affected by so much of any source's stack height that exceeds good engineering practice or by any other dispersion technique. except as provided in §51.118(b). Such procedures must provide that before a State issues a permit to a source based on a good engineering practice stack height that exceeds the height allowed by §51.100(ii) (1) or (2), the State must notify the public of the availability of the demonstration study and must provide opportunity for public hearing on it. This section does not require such procedures to restrict in any manner the actual stack height of any source.

### §51.165 Permit requirements.

- (a) State Implementation Plan and Tribal Implementation Plan provisions satisfying sections 172(c)(5) and 173 of the Act shall meet the following conditions:
- (1) All such plans shall use the specific definitions. Deviations from the following wording will be approved only if the State specifically demonstrates that the submitted definition is more stringent, or at least as stringent, in all respects as the corresponding definition below:
- (i) Stationary source means any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.
- (ii)(A) Building, structure, facility, or installation means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant emitting activities shall be considered as part of the same industrial grouping if they belong

to the same Major Group (i.e., which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101–0065 and 003–005–00176–0, respectively).

- (B) The plan may include the following provision: Notwithstanding the provisions of paragraph (a)(1)(ii)(A) of this section, building, structure, facility, or installation means, for onshore activities under Standard Industrial Classification (SIC) Major Group 13: Oil and Gas Extraction, all of the pollutantemitting activities included in Major Group 13 that are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant emitting activities shall be considered adjacent if they are located on the same surface site; or if they are located on surface sites that are located within 1/4 mile of one another (measured from the center of the equipment on the surface site) and they share equipment. Shared equipment includes, but is not limited to, produced fluids storage tanks, phase separators, natural gas dehydrators or emissions control devices. Surface site. as used in this paragraph (a)(1)(ii)(B), has the same meaning as in 40 CFR 63.761.
- (iii) Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.
- (iv)(A) Major stationary source means: (1) Any stationary source of air pollutants that emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant (as defined in paragraph (a)(1)(xxxvii) of this section), except that lower emissions thresholds shall apply in areas subject

to subpart 2, subpart 3, or subpart 4 of part D, title I of the Act, according to paragraphs (a)(1)(iv)(A)(1)(i) through (viii) of this section.

- (i) 50 tons per year of Volatile organic compounds in any serious ozone nonattainment area.
- (ii) 50 tons per year of Volatile organic compounds in an area within an ozone transport region, except for any severe or extreme ozone nonattainment area.
- (iii) 25 tons per year of Volatile organic compounds in any severe ozone nonattainment area.
- (iv) 10 tons per year of Volatile organic compounds in any extreme ozone nonattainment area.
- (v) 50 tons per year of Carbon monoxide in any serious nonattainment area for carbon monoxide, where stationary sources contribute significantly to Carbon monoxide levels in the area (as determined under rules issued by the Administrator).
- (vi) 70 tons per year of  $PM_{10}$  in any serious nonattainment area for  $PM_{10}$ .
- (vii) 70 tons per year of PM<sub>2.5</sub> in any serious nonattainment area for PM<sub>2.5</sub>
- (viii) 70 tons per year of any individual precursor for  $PM_{2.5}$  (as defined in paragraph (a)(1)(xxxvii) of this section), in any serious nonattainment area for  $PM_{2.5}$ .
- (2) For the purposes of applying the requirements of paragraph (a)(8) of this section to stationary sources of nitrogen oxides located in an ozone nonattainment area or in an ozone transport region, any stationary source which emits, or has the potential to emit, 100 tons per year or more of nitrogen oxides emissions, except that the emission thresholds in paragraphs (a)(1)(iv)(A)(2)(i) through (vi) of this section shall apply in areas subject to subpart 2 of part D, title I of the Act.
- (i) 100 tons per year or more of nitrogen oxides in any ozone nonattainment area classified as marginal or moderate.
- (ii) 100 tons per year or more of nitrogen oxides in any ozone nonattainment area classified as a transitional, submarginal, or incomplete or no data area, when such area is located in an ozone transport region.
- (iii) 100 tons per year or more of nitrogen oxides in any area designated

under section 107(d) of the Act as attainment or unclassifiable for ozone that is located in an ozone transport region.

- (iv) 50 tons per year or more of nitrogen oxides in any serious nonattainment area for ozone.
- (v) 25 tons per year or more of nitrogen oxides in any severe nonattainment area for ozone.
- (vi) 10 tons per year or more of nitrogen oxides in any extreme nonattainment area for ozone; or
- (3) Any physical change that would occur at a stationary source not qualifying under paragraphs (a)(1)(iv)(A)(I) or (2) of this section as a major stationary source, if the change would constitute a major stationary source by itself.
- (B) A major stationary source that is major for volatile organic compounds shall be considered major for ozone
- (C) The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this paragraph whether it is a major stationary source, unless the source belongs to one 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) Sintering plants;
- (19) Secondary metal production plants;
- (20) Chemical process plants—The term chemical processing plant shall

not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;

- (21) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units 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 British thermal units per hour heat input; and
- (27) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.
- (v)(A) Major modification means any physical change in or change in the method of operation of a major stationary source that would result in:
- (1) A significant emissions increase of a regulated NSR pollutant (as defined in paragraph (a)(1)(xxxvii) of this section); and
- (2) A significant net emissions increase of that pollutant from the major stationary source.
- (B) Any significant emissions increase (as defined in paragraph (a)(1)(xxvii) of this section) from any emissions units or net emissions increase (as defined in paragraph (a)(1)(vi) of this section) at a major stationary source that is significant for volatile organic compounds shall be considered significant for ozone.
- (C) A physical change or change in the method of operation shall not include:
- (1) Routine maintenance, repair and replacement. Routine maintenance, repair and replacement shall include, but not be limited to, any activity(s) that meets the requirements of the equipment replacement provisions contained in paragraph (h) of this section;

Note to paragraph (a)(1)(v)(C)(l): On December 24, 2003, the second sentence of this paragraph (a)(1)(v)(C)(l) is stayed indefinitely by court order. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the Federal Register advising the public of the termination of the stay.

- (2) Use of an alternative fuel or raw material by reason of an order under sections 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- (3) Use of an alternative fuel by reason of an order or rule section 125 of the Act;
- (4) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
- (5) Use of an alternative fuel or raw material by a stationary source which;
- (i) The source was capable of accommodating before December 21, 1976, unless such change would be prohibited under any federally enforceable permit condition which was established after December 12, 1976 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or §51.166, or
- (ii) The source is approved to use under any permit issued under regulations approved pursuant to this section;
- (6) An increase in the hours of operation or in the production rate, unless such change is prohibited under any federally enforceable permit condition which was established after December 21, 1976 pursuant to 40 CFR 52.21 or regulations approved pursuant to 40 CFR part 51 subpart I or 40 CFR 51.166.
- (7) Any change in ownership at a stationary source.
  - (8) [Reserved]
- (9) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:
- (i) The State Implementation Plan for the State in which the project is located, and
- (ii) Other requirements necessary to attain and maintain the national ambient air quality standard during the project and after it is terminated.
- (D) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under paragraph (f) of

this section for a PAL for that pollutant. Instead, the definition at paragraph (f)(2)(viii) of this section shall apply.

- (E) For the purpose of applying the requirements of (a)(8) of this section to modifications at major stationary sources of nitrogen oxides located in ozone nonattainment areas or in ozone transport regions, whether or not subject to subpart 2, part D, title I of the Act, any significant net emissions increase of nitrogen oxides is considered significant for ozone.
- (F) Any physical change in, or change in the method of operation of, a major stationary source of volatile organic compounds that results in any increase in emissions of volatile organic compounds from any discrete operation, emissions unit, or other pollutant emitting activity at the source shall be considered a significant net emissions increase and a major modification for ozone, if the major stationary source is located in an extreme ozone nonattainment area that is subject to subpart 2, part D, title I of the Act.
- (G) Fugitive emissions shall not be included in determining for any of the purposes of this section whether a physical change in or change in the method of operation of a major stationary source is a major modification, unless the source belongs to one of the source categories listed in paragraph (a)(1)(iv)(C) of this section.
- (vi)(A) Net emissions increase means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:
- (1) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph (a)(2)(ii) of this section; 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 (a)(1)(vi)(A)(2) shall be determined as provided in paragraph (a)(1)(xxxx) of this section, except that

- paragraphs (a)(1)(xxxv)(A)(3) and (a)(1)(xxxv)(B)(4) of this section shall not apply.
- (B) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs before the date that the increase from the particular change occurs;
- (C) An increase or decrease in actual emissions is creditable only if:
- (1) It occurs within a reasonable period to be specified by the reviewing authority; and
- (2) The reviewing authority has not relied on it in issuing a permit for the source under regulations approved pursuant to this section, which permit is in effect when the increase in actual emissions from the particular change occurs; and
- (3) As it pertains to an increase or decrease in fugitive emissions (to the extent quantifiable), it occurs at an emissions unit that is part of one of the source categories listed in paragraph (a)(1)(iv)(C) of this section or it occurs at an emissions unit that is located at a major stationary source that belongs to one of the listed source categories. Fugitive emission increases or decreases are not creditable for those emissions units located at a facility whose primary activity is not represented by one of the source categories listed in paragraph (a)(1)(iv)(C) of this section and that are not, by themselves, part of a listed source category.
- (D) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
- (E) A decrease in actual emissions is creditable only to the extent that:
- (1) The old level of actual emission or the old level of allowable emissions whichever is lower, exceeds the new level of actual emissions;
- (2) It is enforceable as a practical matter at and after the time that actual construction on the particular change begins; and
- (3) The reviewing authority has not relied on it in issuing any permit under regulations approved pursuant to 40 CFR part 51 subpart I or the State has

not relied on it in demonstrating attainment or reasonable further progress:

- (4) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change; and
- (F) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
- (G) Paragraph (a)(1)(xii)(B) of this section shall not apply for determining creditable increases and decreases or after a change.
- (vii) *Emissions unit* means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric steam generating unit as defined in paragraph (a)(1)(xx) of this section. For purposes of this section, there are two types of emissions units as described in paragraphs (a)(1)(vii)(A) and (B) of this section.
- (A) A new emissions unit is any emissions unit which is (or will be) newly constructed and which has existed for less than 2 years from the date such emissions unit first operated.
- (B) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph (a)(1)(vii)(A) of this section. A replacement unit, as defined in paragraph (a)(1)(xxi) of this section, is an existing emissions unit.
- (viii) Secondary emissons means emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this section, secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction of operation of the major

stationary source of major modification. Secondary emissions do not include any emissions which come directly from a mobile source such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.

- (ix) Fugitive emissions means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.
- (x)(A) Significant means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

#### POLLUTANT EMISSION RATE

Carbon monoxide: 100 tons per year (tpy)

Nitrogen oxides: 40 tpy Sulfur dioxide: 40 tpy

Ozone: 40 tpy of Volatile organic compounds

or Nitrogen oxides Lead: 0.6 tpy

PM<sub>10</sub>: 15 tpy

PM<sub>2.5</sub>: 10 tpy of direct PM<sub>2.5</sub> emissions; 40 tpy of Sulfur dioxide emissions, 40 tpy of Nitrogen oxide emissions, or 40 tpy of VOC emissions, to the extent that any such pollutant is defined as a precursor for PM<sub>2.5</sub> in paragraph (a)(1)(xxxvi) of this section.

- (B) Notwithstanding the significant emissions rate for ozone in paragraph (a)(1)(x)(A) of this section, significant means, in reference to an emissions increase or a net emissions increase, any increase in actual emissions of volatile organic compounds that would result from any physical change in, or change in the method of operation of, a major stationary source locating in a serious or severe ozone nonattainment area that is subject to subpart 2, part D, title I of the Act, if such emissions increase of volatile organic compounds exceeds 25 tons per year.
- (C) For the purposes of applying the requirements of paragraph (a)(8) of this section to modifications at major stationary sources of nitrogen oxides located in an ozone nonattainment area or in an ozone transport region, the significant emission rates and other requirements for volatile organic compounds in paragraphs (a)(1)(x)(A), (B), and (E) of this section shall apply to nitrogen oxides emissions.
- (D) Notwithstanding the significant emissions rate for carbon monoxide

under paragraph (a)(1)(x)(A) of this section, significant means, in reference to an emissions increase or a net emissions increase, any increase in actual emissions of carbon monoxide that would result from any physical change in, or change in the method of operation of, a major stationary source in a serious nonattainment area for carbon monoxide if such increase equals or exceeds 50 tons per year, provided the Administrator has determined that stationary sources contribute significantly to carbon monoxide levels in that area.

- (E) Notwithstanding the significant emissions rates for ozone under paragraphs (a)(1)(x)(A) and (B) of this section, any increase in actual emissions of volatile organic compounds from any emissions unit at a major stationary source of volatile organic compounds located in an extreme ozone nonattainment area that is subject to subpart 2, part D, title I of the Act shall be considered a significant net emissions increase.
- (F) For the purposes of applying the requirements of paragraph (a)(13) of this section to modifications at existing major stationary sources of Ammonia located in a  $PM_{2.5}$  nonattainment area, if the plan requires that the control requirements of this section apply to major stationary sources and major modifications of Ammonia as a regulated NSR pollutant (as a  $PM_{2.5}$  precursor), the plan shall also define "significant" for Ammonia for that area, subject to the approval of the Administrator.
- (xi) Allowable emissions means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
- (A) The applicable standards set forth in 40 CFR part 60 or 61;
- (B) Any applicable State Implementation Plan emissions limitation including those with a future compliance date; or
- (C) The emissions rate specified as a federally enforceable permit condition,

including those with a future compliance date.

(xii)(A) Actual emissions means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs (a)(1)(xii)(B) through (D) of this section, except that this definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL under paragraph (f) of this section. Instead, paragraphs (a)(1)(xxviii) and (xxxv) of this section shall apply for those purposes.

- (B) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
- (C) The reviewing authority may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
- (D) For any emissions unit that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- (xiii) Lowest achievable emission rate (LAER) means, for any source, the more stringent rate of emissions based on the following:
- (A) The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
- (B) The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emissions rate for

the new or modified emissions units within or stationary source. In no event shall the application of the term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

(xiv) Federally enforceable means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the State implementation plan and expressly requires adherence to any permit issued under such program.

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

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

(A) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or

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

(xvii) Necessary preconstruction approvals or permits means those Federal air quality control laws and regulations and those air quality control laws

and regulations which are part of the applicable State Implementation Plan.

(xviii) Construction means 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.

(xix)Volatile organic compounds (VOC) is as defined in §51.100(s) of this part.

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

(xxi) Replacement unit means an emissions unit for which all the criteria listed in paragraphs (a)(1)(xxi)(A) through (D) of this section are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.

- (A) The emissions unit is a reconstructed unit within the meaning of  $\S 60.15(b)(1)$  of this chapter, or the emissions unit completely takes the place of an existing emissions unit.
- (B) The emissions unit is identical to or functionally equivalent to the replaced emissions unit.
- (C) The replacement does not alter the basic design parameters (as discussed in paragraph (h)(2) of this section) of the process unit.
- (D) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.

(xxii) Temporary clean coal technology demonstration project means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State Implementation Plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(xxiii) Clean coal technology means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

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

(xxv) [Reserved]

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

(xxvii) Significant emissions increase means, for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph (a)(1)(x) of this section) for that pollutant.

(xxviii)(A) Projected actual emissions means, the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its po-

tential to emit of that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.

- (B) In determining the projected actual emissions under paragraph (a)(1)(xxviii)(A) of this section before beginning actual construction, the owner or operator of the major stationary source:
- (1) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved plan; and
- (2) Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions; and
- (3) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions under paragraph (a)(1)(xxxv) of this section and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or,
- (4) In lieu of using the method set out in paragraphs (a)(1)(xxviii)(B)(I) through (J) of this section, may elect to use the emissions unit's potential to emit, in tons per year, as defined under paragraph (a)(1)(iii) of this section.

(xxix) [Reserved]

(xxx) Nonattainment major new source review (NSR) program means a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of this section, or a program that implements part 51, appendix S, Sections I through VI of this chapter. Any permit issued under such a program is a major NSR permit.

(xxxi) Continuous emissions monitoring system (CEMS) means all of the equipment that may be required to meet the data acquisition and availability requirements of this section, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.

(xxxii) Predictive emissions monitoring system (PEMS) means all of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O<sub>2</sub> or CO<sub>2</sub> concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

(xxxiii) Continuous parameter monitoring system (CPMS) means all of the equipment necessary to meet the data acquisition and availability requirements of this section, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O<sub>2</sub> or CO<sub>2</sub> concentrations), and to record average operational parameter value(s) on a continuous basis.

(XXXIV) Continuous emissions rate monitoring system (CERMS) means the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).

(xxxv) Baseline actual emissions means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs (a)(1)(xxxv)(A) through (D) of this section.

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

- (1) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
- (2) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.
- (3) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.
- (4) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph (a)(1)(xxxv)(A)(2) of this section.
- (B) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the reviewing authority for a permit required either under this section or under a plan approved by the Administrator, whichever is earlier, except that the 10year period shall not include any period earlier than November 15, 1990.
- (1) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
- (2) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.

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- (3) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply. had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under part 63 of this chapter, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of paragraph (a)(3)(ii)(G) of this section.
- (4) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used For each regulated NSR pollutant.
- (5) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraphs (a)(1)(xxxv)(B)(2) and (3) of this section.
- (C) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.
- (D) For a PAL for a major stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in paragraph (a)(1)(xxxv)(A) of this section, for other existing emissions units in accordance with the procedures contained in paragraph (a)(1)(xxxv)(B) of this section, and for a new emissions unit in accordance with the procedures contained in paragraph (a)(1)(xxxv)(C) of this section.

(xxxvi) [Reserved]

- (xxxvii) Regulated NSR pollutant, for purposes of this section, means the following:
- (A) Nitrogen oxides or any volatile organic compounds;
- (B) Any pollutant for which a national ambient air quality standard has been promulgated;
- (C) Any pollutant that is identified under this paragraph (a)(1)(xxxvii)(C) as a constituent or precursor of a general pollutant listed under paragraph (a)(1)(xxxvii)(A) or (B) of this section, provided that such constituent or precursor pollutant may only be regulated under NSR as part of regulation of the general pollutant. Precursors identified by the Administrator for purposes of NSR are the following:
- (1) Volatile organic compounds and nitrogen oxides are precursors to ozone in all ozone nonattainment areas.
- (2) Sulfur dioxide, Nitrogen oxides, Volatile organic compounds and Ammonia are precursors to  $PM_{2.5}$  in any  $PM_{2.5}$  nonattainment area.
- (D)  $PM_{2.5}$  emissions and  $PM_{10}$  emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. On or after January 1, 2011 (or any earlier date established in the upcoming rulemaking codifying test methods), such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM2.5 and PM10 in nonattainment major NSR permits. Compliance with emissions limitations for PM<sub>2.5</sub> and PM<sub>10</sub> issued prior to this date shall not be based on condensable particulate matter unless required by the terms and conditions of the permit or the applicable implementation plan. Applicability determinations made prior to this date without accounting for condensable particulate matter shall not be considered in violation of this section unless the applicable implementation plan required condensable particulate matter to be in-

(xxxviii) Reviewing authority means the State air pollution control agency, local agency, other State agency, Indian tribe, or other agency authorized by the Administrator to carry out a permit program under this section and

§51.166, or the Administrator in the case of EPA-implemented permit programs under §52.21.

(xxxix) *Project* means a physical change in, or change in the method of operation of, an existing major stationary source.

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

(xli) Prevention of Significant Deterioration (PSD) permit means any permit that is issued under a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of \$51.166 of this chapter, or under the program in \$52.21 of this chapter.

(xlii) Federal Land Manager means, with respect to any lands in the United

States, the Secretary of the department with authority over such lands.

(xliii)(A) In general, process unit means any collection of structures and/or equipment that processes, assembles, applies, blends, or otherwise uses material inputs to produce or store an intermediate or a completed product. A single stationary source may contain more than one process unit, and a process unit may contain more than one emissions unit.

- (B) Pollution control equipment is not part of the process unit, unless it serves a dual function as both process and control equipment. Administrative and warehousing facilities are not part of the process unit.
- (C) For replacement cost purposes, components shared between two or more process units are proportionately allocated based on capacity.
- (D) The following list identifies the process units at specific categories of stationary sources.
- (1) For a steam electric generating facility, the process unit consists of those portions of the plant that contribute directly to the production of electricity. For example, at a pulverized coal-fired facility, the process unit would generally be the combination of those systems from the coal receiving equipment through the emission stack (excluding post-combustion pollution controls), including the coal handling pulverizers or equipment. coal crushers, feedwater heaters, ash handling, boiler, burners, turbine-generator set, condenser, cooling tower, water treatment system, preheaters, and operating control systems. Each separate generating unit is a separate process unit.
- (2) For a petroleum refinery, there are several categories of process units: those that separate and/or distill petroleum feedstocks; those that change molecular structures; petroleum treating processes; auxiliary facilities, such as steam generators and hydrogen production units; and those that load, unload, blend or store intermediate or completed products.
- (3) For an incinerator, the process unit would consist of components from the feed pit or refuse pit to the stack,

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including conveyors, combustion devices, heat exchangers and steam generators, quench tanks, and fans.

NOTE TO PARAGRAPH (a)(1)(xliii): By a court order on December 24, 2003, this paragraph (a)(1)(xliii) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(xliv) Functionally equivalent component means a component that serves the same purpose as the replaced component.

NOTE TO PARAGRAPH (a)(1)(xliv): By a court order on December 24, 2003, this paragraph (a)(1)(xliv) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(xlv) Fixed capital cost means the capital needed to provide all the depreciable components. "Depreciable components" refers to all components of fixed capital cost and is calculated by subtracting land and working capital from the total capital investment, as defined in paragraph (a)(1)(xlvi) of this section.

NOTE TO PARAGRAPH (a)(1)(xlv): By a court order on December 24, 2003, this paragraph (a)(1)(xlv) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(xlvi) Total capital investment means the sum of the following: All costs required to purchase needed process equipment (purchased equipment costs); the costs of labor and materials for installing that equipment (direct installation costs); the costs of site preparation and buildings; other costs such as engineering, construction and field expenses, fees to contractors, startup and performance tests, and contingencies (indirect installation costs); land for the process equipment; and working capital for the process equipment.

NOTE TO PARAGRAPH (a)(1)(xlvi): By a court order on December 24, 2003, this paragraph (a)(1)(xlvi) is stayed indefinitely. The stayed provisions will become effective immediately

if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(2) Applicability procedures. (i) Each plan shall adopt a preconstruction review program to satisfy the requirements of sections 172(c)(5) and 173 of the Act for any area designated nonattainment for any national ambient air quality standard under subpart C of 40 CFR part 81. Such a program shall apply to any new major stationary source or major modification that is major for the pollutant for which the area is designated nonattainment under section 107(d)(1)(A)(i) of the Act, if the stationary source or modification would locate anywhere in the designated nonattainment area. Different pollutants, including individual precursors, are not summed to determine applicability of a major stationary source or major modification.

(ii) Each plan shall use the specific provisions of paragraphs (a)(2)(ii)(A) through (F) of this section. Deviations from these provisions will be approved only if the State specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding provisions in paragraphs (a)(2)(ii)(A) through (F) of this section.

(A) Except as otherwise provided in paragraphs (a)(2)(iii) and (iv) of this section, and consistent with the definition of major modification contained in paragraph (a)(1)(v)(A) of this section, a project is a major modification for a regulated NSR pollutant (as defined in paragraph (a)(1)(xxxvii) of this section) if it causes two types of emissions increases—a significant emissions increase (as defined in paragraph (a)(1)(xxvii) of this section), and a significant net emissions increase (as defined in paragraphs (a)(1)(vi) and (x) of this section). The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.

(B) The procedure for calculating (before beginning actual construction)

whether a significant emissions increase (i.e., the first step of the process) will occur depends upon the type of emissions units being modified, according to paragraphs (a)(2)(ii)(C) through (F) of this section. The procedure for calculating (before beginning actual construction) whether a significant net emissions increase will occur at the major stationary source (i.e., the second step of the process) is contained in the definition in paragraph (a)(1)(vi) of this section. Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.

- (C) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in paragraph (a)(1)(xxviii) of this section) and the baseline actual emissions (as defined in paragraphs (a)(1)(xxxv)(A) and (B) of this section, as applicable), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (a)(1)(x) of this section).
- (D) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in paragraph (a)(1)(iii) of this section) from each new emissions unit following completion of the project and the baseline actual emissions (as defined in paragraph (a)(1)(xxxv)(C) of this section) of these units before the project equals or exceeds the significant amount for that pollutant (as defined in paragraph (a)(1)(x) of this section).
  - (E) [Reserved]
- (F) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in paragraphs (a)(2)(ii)(C) through (D) of this section as applicable with respect to each

emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant (as defined in paragraph (a)(1)(x) of this section).

- (iii) The plan shall require that for any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with requirements under paragraph (f) of this section.
- (3)(i) Each plan shall provide that for sources and modifications subject to any preconstruction review program adopted pursuant to this subsection the baseline for determining credit for emissions reductions is the emissions limit under the applicable State Implementation Plan in effect at the time the application to construct is filed, except that the offset baseline shall be the actual emissions of the source from which offset credit is obtained where;
- (A) The demonstration of reasonable further progress and attainment of ambient air quality standards is based upon the actual emissions of sources located within a designated nonattainment area for which the preconstruction review program was adopted; or
- (B) The applicable State Implementation Plan does not contain an emissions limitation for that source or source category.
- (ii) The plan shall further provide that:
- (A) Where the emissions limit under the applicable State Implementation Plan allows greater emissions than the potential to emit of the source, emissions offset credit will be allowed only for control below this potential;
- (B) For an existing fuel combustion source, credit shall be based on the allowable emissions under the applicable State Implementation Plan for the type of fuel being burned at the time the application to construct is filed. If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable (or actual) emissions for the fuels involved is not acceptable, unless the permit is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a

dirtier fuel at some later date. The reviewing authority should ensure that adequate long-term supplies of the new fuel are available before granting emissions offset credit for fuel switches.

- (C)(I) Emissions reductions achieved by shutting down an existing emission unit or curtailing production or operating hours may be generally credited for offsets if they meet the requirements in paragraphs (a)(3)(ii)(C)(I)(i) through (ii) of this section.
- (i) Such reductions are surplus, permanent, quantifiable, and federally enforceable.
- (ii) The shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this paragraph, a reviewing authority may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. However, in no event may credit be given for shutdowns that occurred before August 7, 1977.
- (2) Emissions reductions achieved by shutting down an existing emissions unit or curtailing production or operating hours and that do not meet the requirements in paragraph (a)(3)(i)(C)(I)(ii) of this section may be generally credited only if:
- (i) The shutdown or curtailment occurred on or after the date the construction permit application is filed; or
- (ii) The applicant can establish 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 met the requirements of paragraph (a)(3)(ii)(C)(I)(i) of this section.
- (D) No emissions credit may be allowed for replacing one hydrocarbon compound with another of lesser reactivity, except for those compounds listed in Table 1 of EPA's "Recommended Policy on Control of Volatile Organic Compounds" (42 FR 35314, July 8, 1977; (This document is also available from Mr. Ted Creekmore, Office of Air Quality Planning and Standards, (MD-15) Research Triangle Park, NC 27711.))

- (E) All emission reductions claimed as offset credit shall be federally enforceable;
- (F) Procedures relating to the permissible location of offsetting emissions shall be followed which are at least as stringent as those set out in 40 CFR part 51 appendix S section IV.D.
- (G) Credit for an emissions reduction can be claimed to the extent that the reviewing authority has not relied on it in issuing any permit under regulations approved pursuant to 40 CFR part 51 subpart I or the State has not relied on it in demonstration attainment or reasonable further progress.
  - (H) [Reserved]
  - (I) [Reserved]
- (J) The total tonnage of increased emissions, in tons per year, resulting from a major modification that must be offset in accordance with section 173 of the Act shall be determined by summing the difference between the allowable emissions after the modification (as defined by paragraph (a)(1)(xi) of this section) and the actual emissions before the modification (as defined in paragraph (a)(1)(xii) of this section) for each emissions unit.
- (4) Each plan may provide that the provisions of this paragraph do not apply to a source or modification that would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and the source does not belong to any of the following categories:
- (i) Coal cleaning plants (with thermal dryers);
  - (ii) Kraft pulp mills;
  - (iii) Portland cement plants;
  - (iv) Primary zinc smelters:
  - (v) Iron and steel mills;
- (vi) Primary aluminum ore reduction plants;
- (vii) Primary copper smelters;
- (viii) Municipal incinerators capable of charging more than 250 tons of refuse per day;
- (ix) Hydrofluoric, sulfuric, or citric acid plants;
- (x) Petroleum refineries;
- (xi) Lime plants;
- (xii) Phosphate rock processing plants;

- (xiii) Coke oven batteries;
- (xiv) Sulfur recovery plants;
- (xv) Carbon black plants (furnace process):
  - (xvi) Primary lead smelters:
  - (xvii) Fuel conversion plants;
  - (xviii) Sintering plants;
- (xix) Secondary metal production plants;
- (xx) Chemical process plants—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
- (xxi) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
- (xxii) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- (xxiii) Taconite ore processing plants;
  - (xxiv) Glass fiber processing plants;
  - (xxv) Charcoal production plants;
- (xxvi) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;
- (xxvii) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.
- (5) Each plan shall include enforceable procedures to provide that:
- (i) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provision of the plan and any other requirements under local, State or Federal law.
- (ii) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforcement limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of regulations approved pursuant to this section shall apply to the source or modification as though construction had not yet commenced on the source or modification:
- (6) Each plan shall provide that, except as otherwise provided in paragraph (a)(6)(vi) of this section, the fol-

- lowing specific provisions apply with respect to any regulated NSR pollutant emitted from projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility, within the meaning of paragraph (a)(6)(vi) of this section, that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant, and the owner or operator elects to use the method specified in paragraphs (a)(1)(xxviii)(B)(1) through (3) of this section for calculating projected actual emissions. Deviations from these provisions will be approved only if the State specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding provisions in paragraphs (a)(6)(i) through (vi) of this section.
- (i) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
  - (A) A description of the project;
- (B) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph (a)(1)(xxviii)(B)(3) of this section and an explanation for why such amount was excluded, and any netting calculations, if applicable.
- (ii) If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in paragraph (a)(6)(i) of this section to the reviewing authority. Nothing in this paragraph (a)(6)(ii) shall be construed to require the owner or operator of such a unit to obtain any determination from the reviewing authority before beginning actual construction.
- (iii) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a

result of the project and that is emitted by any emissions units identified in paragraph (a)(6)(i)(B) of this section; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

- (iv) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority within 60 days after the end of each year during which records must be generated under paragraph (a)(6)(iii) of this section setting out the unit's annual emissions during the year that preceded submission of the report.
- (v) If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority if the annual emissions, in tons per year, from the project identified in paragraph (a)(6)(i) of this section, exceed the baseline actual emissions (as documented and maintained pursuant to paragraph (a)(6)(i)(C) of this section, by a significant amount (as defined in paragraph (a)(1)(x) of this section) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (a)(6)(i)(C) of this section. Such report shall be submitted to the reviewing authority within 60 days after the end of such year. The report 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 (a)(6)(iii) of this section; and
- (C) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).
- (vi) A "reasonable possibility" under paragraph (a)(6) of this section occurs when the owner or operator calculates the project to result in either:

- (A) A projected actual emissions increase of at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph (a)(1)(xxvii) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant; or
- (B) A projected actual emissions increase that, added to the amount of emissions excluded under paragraph (a)(1)(xxviii)(B)(3), sums to at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph (a)(1)(xxvii) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of paragraph (a)(6)(vi)(B) of this section, and not also within the meaning of paragraph (a)(6)(vi)(A) of this section, then provisions (a)(6)(ii) through (v) do not apply to the project.
- (7) Each plan shall provide that the owner or operator of the source shall make the information required to be documented and maintained pursuant to paragraph (a)(6) of this section available for review upon a request for inspection by the reviewing authority or the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of this chapter.
- (8) The plan shall provide that the requirements of this section applicable to major stationary sources and major modifications of volatile organic compounds shall apply to nitrogen oxides from major stationary emissions sources and major modifications of nitrogen oxides in an ozone transport region or in any ozone nonattainment area, except in ozone nonattainment areas or in portions of an ozone transport region where the Administrator has granted a NO<sub>x</sub> waiver applying the standards set forth under section 182(f) of the Act and the waiver continues to apply.
- (9)(i) The plan shall require that in meeting the emissions offset requirements of paragraph (a)(3) of this section, the ratio of total actual emissions reductions to the emissions increase

shall be at least 1:1 unless an alternative ratio is provided for the applicable nonattainment area in paragraphs (a)(9)(ii) through (a)(9)(iv) of this section.

- (ii) The plan shall require that in meeting the emissions offset requirements of paragraph (a)(3) of this section for ozone nonattainment areas that are subject to subpart 2, part D, title I of the Act, the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be as follows:
- (A) In any marginal nonattainment area for ozone—at least 1.1:1;
- (B) In any moderate nonattainment area for ozone—at least 1.15:1;
- (C) In any serious nonattainment area for ozone—at least 1.2:1;
- (D) In any severe nonattainment area for ozone—at least 1.3:1 (except that the ratio may be at least 1.2:1 if the approved plan also requires all existing major sources in such nonattainment area to use BACT for the control of VOC); and
- (E) In any extreme nonattainment area for ozone—at least 1.5:1 (except that the ratio may be at least 1.2:1 if the approved plan also requires all existing major sources in such nonattainment area to use BACT for the control of VOC); and
- (iii) Notwithstanding the requirements of paragraph (a)(9)(ii) of this section for meeting the requirements of paragraph (a)(3) of this section, the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be at least 1.15:1 for all areas within an ozone transport region that is subject to subpart 2, part D, title I of the Act, except for serious, severe, and extreme ozone nonattainment areas that are subject to subpart 2, part D, title I of the Act.
- (iv) The plan shall require that in meeting the emissions offset requirements of paragraph (a)(3) of this section for ozone nonattainment areas that are subject to subpart 1, part D, title I of the Act (but are not subject to subpart 2, part D, title I of the Act, including 8-hour ozone nonattainment areas subject to 40 CFR 51.902(b)), the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be at least 1:1.

- (10) The plan shall require that the requirements of this section applicable to major stationary sources and major modifications of PM-10 shall also apply to major stationary sources and major modifications of PM-10 precursors, except where the Administrator determines that such sources do not contribute significantly to PM-10 levels that exceed the PM-10 ambient standards in the area.
- (11) The plan shall require that in meeting the emissions offset requirements of paragraph (a)(3) of this section, the emissions offsets obtained shall be for the same regulated NSR pollutant unless interprecursor offseting is permitted for a particular pollutant as specified in this paragraph.
- (i) The plan may allow the offset requirement in paragraph (a)(3) of this section for emissions of the ozone precursors  $NO_X$  and VOC to be satisfied by offsetting reductions in emissions of either of those precursors, if all other requirements for such offsets are also satisfied.
- (ii) The plan may allow the offset requirements in paragraph (a)(3) of this section for direct  $PM_{2.5}$  emissions or emissions of precursors of  $PM_{2.5}$  to be satisfied by offsetting reductions in direct  $PM_{2.5}$  emissions or emissions of any  $PM_{2.5}$  precursor identified under paragraph (a)(1)(xxxvii)(C) of this section if such offsets comply with the interprecursor trading hierarchy and ratio established in the approved plan for a particular nonattainment area.
- (12) The plan shall require that in any area designated nonattainment for the 2008 ozone NAAQS and designated nonattainment for the 1997 ozone NAAQS on April 6, 2015 the requirements of this section applicable to major stationary sources and major modifications of ozone shall include the anti-backsliding requirements contained at \$51.1105.
- (13) The plan shall require that the control requirements of this section applicable to major stationary sources and major modifications of  $PM_{2.5}$  shall also apply to major stationary sources and major modifications of  $PM_{2.5}$  precursors in a  $PM_{2.5}$  nonattainment area, except that a reviewing authority may exempt new major stationary sources and major modifications of a particular

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precursor from the requirements of this section for  $PM_{2.5}$  if the NNSR precursor demonstration submitted to and approved by the Administrator shows that such sources do not contribute significantly to  $PM_{2.5}$  levels that exceed the standard in the area. Any demonstration submitted for the Administrator's review must meet the conditions for a NNSR precursor demonstration as set forth in §51.1006(a)(3).

(b)(1) Each plan shall include a preconstruction review permit program or its equivalent to satisfy the requirements of section 110(a)(2)(D)(i) of the Act for any new major stationary source or major modification as defined in paragraphs (a)(1) (iv) and (v) of

this section. Such a program shall apply to any such source or modification that would locate in any area designated as attainment or unclassifiable for any national ambient air quality standard pursuant to section 107 of the Act, when it would cause or contribute to a violation of any national ambient air quality standard.

(2) A major source or major modification will be considered to cause or contribute to a violation of a national ambient air quality standard when such source or modification would, at a minimum, exceed the following significance levels at any locality that does not or would not meet the applicable national standard:

Pollutant	Annual	Averaging time (hours)					
		24	8	3	1		
SO <sub>2</sub>	0.3 μg/m <sup>3</sup>	5 μg/m³ 5 μg/m³ 1.2 μg/m³	0.5 mg/m <sup>3</sup>	25 μg/m <sup>3</sup>	2 mg/m³		

- (3) Such a program may include a provision which allows a proposed major source or major modification subject to paragraph (b) of this section to reduce the impact of its emissions upon air quality by obtaining sufficient emission reductions to, at a minimum. compensate for its adverse ambient impact where the major source or major modification would otherwise cause or contribute to a violation of any national ambient air quality standard. The plan shall require that, in the absence of such emission reductions, the State or local agency shall deny the proposed construction.
- (4) The requirements of paragraph (b) of this section shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment pursuant to section 107 of the Act.
  - (c)–(e) [Reserved]
- (f) Actuals PALs. The plan shall provide for PALs according to the provisions in paragraphs (f)(1) through (15) of this section.

- (1) Applicability. (i) The reviewing authority may approve the use of an actuals PAL for any existing major stationary source (except as provided in paragraph (f)(1)(ii) of this section) if the PAL meets the requirements in paragraphs (f)(1) through (15) of this section. The term "PAL" shall mean "actuals PAL" throughout paragraph (f) of this section.
- (ii) The reviewing authority shall not allow an actuals PAL for VOC or  $NO_{\rm X}$  for any major stationary source located in an extreme ozone nonattainment area.
- (iii) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs (f)(1) through (15) of this section, and complies with the PAL permit:
- (A) Is not a major modification for the PAL pollutant;
- (B) Does not have to be approved through the plan's nonattainment major NSR program; and
- (C) Is not subject to the provisions in paragraph (a)(5)(ii) of this section (restrictions on relaxing enforceable

emission limitations that the major stationary source used to avoid applicability of the nonattainment major NSR program).

- (iv) Except as provided under paragraph (f)(1)(iii)(C) of this section, a major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.
- (2) Definitions. The plan shall use the definitions in paragraphs (f)(2)(i) through (xi) of this section for the purpose of developing and implementing regulations that authorize the use of actuals PALs consistent with paragraphs (f)(1) through (15) of this section. When a term is not defined in these paragraphs, it shall have the meaning given in paragraph (a)(1) of this section or in the Act.
- (i) Actuals PAL for a major stationary source means a PAL based on the baseline actual emissions (as defined in paragraph (a)(1)(xxxv) of this section) of all emissions units (as defined in paragraph (a)(1)(vii) of this section) at the source, that emit or have the potential to emit the PAL pollutant.
- (ii) Allowable emissions means "allowable emissions" as defined in paragraph (a)(1)(xi) of this section, except as this definition is modified according to paragraphs (f)(2)(ii)(A) through (B) of this section.
- (A) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.
- (B) An emissions unit's potential to emit shall be determined using the definition in paragraph (a)(1)(iii) of this section, except that the words "or enforceable as a practical matter" should be added after "federally enforceable."
- (iii) Small emissions unit means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in paragraph (a)(1)(x) of this section or in the Act, whichever is lower.
  - (iv) Major emissions unit means:
- (A) Any emissions unit that emits or has the potential to emit 100 tons per

year or more of the PAL pollutant in an attainment area; or

- (B) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the Act for nonattainment areas. For example, in accordance with the definition of major stationary source in section 182(c) of the Act, an emissions unit would be a major emissions unit for VOC if the emissions unit is located in a serious ozone nonattainment area and it emits or has the potential to emit 50 or more tons of VOC per year.
- (v) Plantwide applicability limitation (PAL) means an emission limitation expressed in tons per year, for a pollutant at a major stationary source, that is enforceable as a practical matter and established source-wide in accordance with paragraphs (f)(1) through (f)(15) of this section.
- (vi) PAL effective date generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit which is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (vii) *PAL effective period* means the period beginning with the PAL effective date and ending 10 years later.
- (viii) PAL major modification means, notwithstanding paragraphs (a)(1)(v) and (vi) of this section (the definitions for major modification and net emissions increase), any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.
- (ix) PAL permit means the major NSR permit, the minor NSR permit, or the State operating permit under a program that is approved into the plan, or the title V permit issued by the reviewing authority that establishes a PAL for a major stationary source.
- (x) *PAL pollutant* means the pollutant for which a PAL is established at a major stationary source.
- (xi) Significant emissions unit means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in

paragraph (a)(1)(x) of this section or in the Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in paragraph (f)(2)(iv) of this section.

- (3) Permit application requirements. As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information to the reviewing authority for approval:
- (i) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations or work practices apply to each unit.
- (ii) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown and malfunction.
- (iii) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (f)(13)(i) of this section.
- (4) General requirements for establishing PALs. (i) The plan allows the reviewing authority to establish a PAL at a major stationary source, provided that at a minimum, the requirements in paragraphs (f)(4)(i)(A) through (G) of this section are met.
- (A) The PAL shall impose an annual emission limitation in tons per year, that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show

that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

- (B) The PAL shall be established in a PAL permit that meets the public participation requirements in paragraph (f)(5) of this section.
- (C) The PAL permit shall contain all the requirements of paragraph (f)(7) of this section.
- (D) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.
- (E) Each PAL shall regulate emissions of only one pollutant.
- (F) Each PAL shall have a PAL effective period of 10 years.
- (G) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs (f)(12) through (14) of this section for each emissions unit under the PAL through the PAL effective period.
- (ii) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant, which occur during the PAL effective period, creditable as decreases for purposes of offsets under paragraph (a)(3)(ii) of this section unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.
- (5) Public participation requirement for PALs. PALs for existing major stationary sources shall be established, renewed, or increased through a procedure that is consistent with §§51.160 and 51.161 of this chapter. This includes the requirement that the reviewing authority provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The reviewing authority must address all material comments before taking final action on the permit.
- (6) Setting the 10-year actuals PAL level. (i) Except as provided in paragraph (f)(6)(ii) of this section, the plan shall provide that the actuals PAL level for a major stationary source

shall be established as the sum of the baseline actual emissions (as defined in paragraph (a)(1)(xxxv) of this section) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph (a)(1)(x) of this section or under the Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL level. The reviewing authority shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the reviewing authority is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO<sub>X</sub> to a new rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).

- (ii) For newly constructed units (which do not include modifications to existing units) on which actual construction began after the 24-month period, in lieu of adding the baseline actual emissions as specified in paragraph (f)(6)(i) of this section, the emissions must be added to the PAL level in an amount equal to the potential to emit of the units.
- (7) Contents of the PAL permit. The plan shall require that the PAL permit contain, at a minimum, the information in paragraphs (f)(7)(i) through (x) of this section.
- (i) The PAL pollutant and the applicable source-wide emission limitation in tons per year.
- (ii) The PAL permit effective date and the expiration date of the PAL (PAL effective period).

- (iii) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL in accordance with paragraph (f)(10) of this section before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the reviewing authority.
- (iv) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns and malfunctions.
- (v) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of paragraph (f)(9) of this section.
- (vi) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (f)(13)(i) of this section.
- (vii) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under paragraph (f)(12) of this section.
- (viii) A requirement to retain the records required under paragraph (f)(13) of this section on site. Such records may be retained in an electronic format.
- (ix) A requirement to submit the reports required under paragraph (f)(14) of this section by the required deadlines.
- (x) Any other requirements that the reviewing authority deems necessary to implement and enforce the PAL.
- (8) PAL effective period and reopening of the PAL permit. The plan shall require the information in paragraphs (f)(8)(i) and (ii) of this section.
- (i) PAL effective period. The reviewing authority shall specify a PAL effective period of 10 years.
- (ii) Reopening of the PAL permit. (A) During the PAL effective period, the plan shall require the reviewing authority to reopen the PAL permit to:
- (1) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL.

- (2) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under paragraph (a)(3)(ii) of this section.
- (3) Revise the PAL to reflect an increase in the PAL as provided under paragraph (f)(11) of this section.
- (B) The plan shall provide the reviewing authority discretion to reopen the PAL permit for the following:
- (1) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) 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 that the State may impose on the major stationary source under the plan.
- (3) Reduce the PAL if the reviewing authority determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an 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.
- (C) Except for the permit reopening in paragraph (f)(8)(ii)(A)(1) of this section for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of paragraph (f)(5) of this section.
- (9) Expiration of a PAL. Any PAL which is not renewed in accordance with the procedures in paragraph (f)(10) of this section shall expire at the end of the PAL effective period, and the requirements in paragraphs (f)(9)(i) through (v) of this section shall apply.
- (i) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in paragraphs (f)(9)(i)(A) through (B) of this section.
- (A) Within the time frame specified for PAL renewals in paragraph (f)(10)(ii) of this section, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emis-

- sions units, if such a distribution is more appropriate as decided by the reviewing authority) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under paragraph (f)(10)(v) of this section, such distribution shall be made as if the PAL had been adjusted.
- (B) The reviewing authority shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the reviewing authority determines is appropriate.
- (ii) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The reviewing authority may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS or CPMS to demonstrate compliance with the allowable emission limitation.
- (iii) Until the reviewing authority issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under paragraph (f)(9)(i)(A) of this section, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.
- (iv) Any physical change or change in the method of operation at the major stationary source will be subject to the nonattainment major NSR requirements if such change meets the definition of major modification in paragraph (a)(1)(v) of this section.
- (v) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to paragraph (a)(5)(ii) of this section, but

were eliminated by the PAL in accordance with the provisions in paragraph (f)(1)(iii)(C) of this section.

- (10) Renewal of a PAL. (i) The reviewing authority shall follow the procedures specified in paragraph (f)(5) of this section in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the reviewing authority.
- (ii) Application deadline. The plan shall require that a major stationary source owner or operator shall submit a timely application to the reviewing authority to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.
- (iii) Application requirements. The application to renew a PAL permit shall contain the information required in paragraphs (f)(10)(iii)(A) through (D) of this section.
- (A) The information required in paragraphs (f)(3)(i) through (iii) of this section.
  - (B) A proposed PAL level.
- (C) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).
- (D) Any other information the owner or operator wishes the reviewing authority to consider in determining the appropriate level for renewing the PAL.
- (iv) PAL adjustment. In determining whether and how to adjust the PAL, the reviewing authority shall consider the options outlined in paragraphs (f)(10)(iv)(A) and (B) of this section. However, in no case may any such adjustment fail to comply with paragraph (f)(10)(iv)(C) of this section.

- (A) If the emissions level calculated in accordance with paragraph (f)(6) of this section is equal to or greater than 80 percent of the PAL level, the reviewing authority may renew the PAL at the same level without considering the factors set forth in paragraph (f)(10)(iv)(B) of this section; or
- (B) The reviewing authority may set the PAL at a level that it determines to be more representative of the source's baseline actual emissions, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the reviewing authority in its written rationale.
- (C) Notwithstanding paragraphs (f)(10)(iv)(A) and (B) of this section,
- (1) If the potential to emit of the major stationary source is less than the PAL, the reviewing authority shall adjust the PAL to a level no greater than the potential to emit of the source; and
- (2) The reviewing authority shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of paragraph (f)(11) of this section (increasing a PAL).
- (v) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the reviewing authority has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.
- (11) Increasing a PAL during the PAL effective period. (i) The plan shall require that the reviewing authority may increase a PAL emission limitation only if the major stationary source complies with the provisions in paragraphs (f)(11)(i)(A) through (D) of this section.
- (A) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s)

contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.

- (B) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.
- (C) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in paragraph (f)(11)(i)(A) of this section, regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the nonattainment major NSR program process (for example, LAER), even though they have also become subject to the PAL or continue to be subject to the PAL.
- (D) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (ii) The reviewing authority shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with paragraph (f)(11)(i)(B)), plus the sum of the base-

line actual emissions of the small emissions units.

- (iii) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of paragraph (f)(5) of this section.
- (12)Monitoring requirements PALs—(i) General requirements. (A) Each PAL permit must contain enforceable requirements for the monitoring systhat accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.
- (B) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in paragraphs (f)(12)(ii)(A) through (D) of this section and must be approved by the reviewing authority.
- (C) Notwithstanding paragraph (f)(12)(i)(B) of this section, you may also employ an alternative monitoring approach that meets paragraph (f)(12)(i)(A) of this section if approved by the reviewing authority.
- (D) Failure to use a monitoring system that meets the requirements of this section renders the PAL invalid.
- (ii) Minimum Performance Requirements for Approved Monitoring Approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in paragraphs (f)(12)(iii) through (ix) of this section:
- (A) Mass balance calculations for activities using coatings or solvents;
  - (B) CEMS;
  - (C) CPMS or PEMS; and
  - (D) Emission Factors.
- (iii) Mass Balance Calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:

- (A) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;
- (B) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
- (C) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the reviewing authority determines there is sitespecific data or a site-specific monitoring program to support another content within the range.
- (iv) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (A) CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and
- (B) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.
- (v) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (A) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and
- (B) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the reviewing authority, while the emissions unit is operating.
- (vi) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
- (A) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

- (B) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and
- (C) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the reviewing authority determines that testing is not required.
- (vii) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.
- (viii) Notwithstanding the requirements in paragraphs (f)(12)(iii) through (vii) of this section, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the reviewing authority shall, at the time of permit issuance:
- (A) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
- (B) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.
- (ix) Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the reviewing authority. Such testing must occur at least once every 5 years after issuance of the PAL.
- (13) Recordkeeping requirements. (i) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of paragraph (f) of this section and of the PAL, including a determination of each

emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.

- (ii) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:
- (A) A copy of the PAL permit application and any applications for revisions to the PAL; and
- (B) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.
- (14) Reporting and notification requirements. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the reviewing authority in accordance with the applicable title V operating permit program. The reports shall meet the requirements in paragraphs (f)(14)(i) through (iii).
- (i) Semi-Annual Report. The semi-annual report shall be submitted to the reviewing authority within 30 days of the end of each reporting period. This report shall contain the information required in paragraphs (f)(14)(i)(A) through (G) of this section.
- (A) The identification of owner and operator and the permit number.
- (B) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph (f)(13)(i) of this section.
- (C) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
- (D) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.
- (E) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
- (F) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational

- or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by paragraph (f)(12)(vii) of this section.
- (G) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- (ii) Deviation report. The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of this chapter. The reports shall contain the following information:
- (A) The identification of owner and 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 the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- (iii) Re-validation results. The owner or operator shall submit to the reviewing authority the results of any re-validation test or method within 3 months after completion of such test or method.
- (15) Transition requirements. (i) No reviewing authority may issue a PAL that does not comply with the requirements in paragraphs (f)(1) through (15) of this section after the Administrator has approved regulations incorporating these requirements into a plan.
- (ii) The reviewing authority may supersede any PAL which was established prior to the date of approval of the plan by the Administrator with a PAL

that complies with the requirements of paragraphs (f)(1) through (15) of this section.

- (g) If any provision of this section, or the application of such provision to any person or circumstance, is held invalid, the remainder of this section, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.
- (h) Equipment replacement provision. Without regard to other considerations, routine maintenance, repair and replacement includes, but is not limited to, the replacement of any component of a process unit with an identical or functionally equivalent component(s), and maintenance and repair activities that are part of the replacement activity, provided that all of the requirements in paragraphs (h)(1) through (3) of this section are met.
- (1) Capital Cost threshold for Equipment Replacement. (i) For an electric utility steam generating unit, as defined in §51.165(a)(1)(xx), the fixed capital cost of the replacement component(s) plus the cost of any associated maintenance and repair activities that are part of the replacement shall not exceed 20 percent of the replacement value of the process unit, at the time the equipment is replaced. For a process unit that is not an electric utility steam generating unit the fixed capital cost of the replacement component(s) plus the cost of any associated maintenance and repair activities that are part of the replacement shall not exceed 20 percent of the replacement value of the process unit, at the time the equipment is replaced.
- (ii) In determining the replacement value of the process unit; and, except as otherwise allowed under paragraph (h)(1)(iii) of this section, the owner or operator shall determine the replacement value of the process unit on an estimate of the fixed capital cost of constructing a new process unit, or on the current appraised value of the process unit.
- (iii) As an alternative to paragraph (h)(1)(ii) of this section for determining the replacement value of a process unit, an owner or operator may choose to use insurance value (where the insurance value covers only complete re-

placement), investment value adjusted for inflation, or another accounting procedure if such procedure is based on Generally Accepted Accounting Principles, provided that the owner or operator sends a notice to the reviewing authority. The first time that an owner or operator submits such a notice for a particular process unit, the notice may be submitted at any time, but any subsequent notice for that process unit may be submitted only at the beginning of the process unit's fiscal year. Unless the owner or operator submits a notice to the reviewing authority, then paragraph (h)(1)(ii) of this section will be used to establish the replacement value of the process unit. Once the owner or operator submits a notice to use an alternative accounting procedure, the owner or operator must continue to use that procedure for the entire fiscal year for that process unit. In subsequent fiscal years, the owner or operator must continue to use this selected procedure unless and until the owner or operator sends another notice to the reviewing authority selecting another procedure consistent with this paragraph or paragraph (h)(1)(ii) of this section at the beginning of such fiscal vear.

(2) Basic design parameters. The replacement does not change the basic design parameter(s) of the process unit to which the activity pertains.

NOTE TO PARAGRAPH (h): By a court order on December 24, 2003, this paragraph (h) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(i) Except as provided in paragraph (h)(2)(iii) of this section, for a process unit at a steam electric generating facility, the owner or operator may select as its basic design parameters either maximum hourly heat input and maximum hourly fuel consumption rate or maximum hourly electric output rate and maximum steam flow rate. When establishing fuel consumption specifications in terms of weight or volume, the minimum fuel quality based on British Thermal Units content shall be used for determining the basic design parameter(s) for a coal-

fired electric utility steam generating unit.

- (ii) Except as provided in paragraph (h)(2)(iii) of this section, the basic design parameter(s) for any process unit that is not at a steam electric generating facility are maximum rate of fuel or heat input, maximum rate of product output. Combustion process units will typically use maximum rate of fuel input. For sources having multiple end products and raw materials, the owner or operator should consider the primary product or primary raw material when selecting a basic design parameter.
- (iii) If the owner or operator believes the basic design parameter(s) in paragraphs (h)(2)(i) and (ii) of this section is not appropriate for a specific industry or type of process unit, the owner or operator may propose to the reviewing authority an alternative basic design parameter(s) for the source's process unit(s). If the reviewing authority approves of the use of an alternative basic design parameter(s), the reviewing authority shall issue a permit that is legally enforceable that records such basic design parameter(s) and requires the owner or operator to comply with such parameter(s).
- (iv) The owner or operator shall use credible information, such as results of historic maximum capability tests, design information from the manufacturer, or engineering calculations, in establishing the magnitude of the basic design parameter(s) specified in paragraphs (h)(2)(i) and (ii) of this section.
- (v) If design information is not available for a process unit, then the owner or operator shall determine the process unit's basic design parameter(s) using the maximum value achieved by the process unit in the five-year period immediately preceding the planned activity.
- (vi) Efficiency of a process unit is not a basic design parameter.
- (3) The replacement activity shall not cause the process unit to exceed any emission limitation, or operational limitation that has the effect of constraining emissions, that applies to the process unit and that is legally enforceable.

- (i) Public participation requirements. The reviewing authority shall notify the public of a draft permit by a method described in either paragraph (i)(1) or (2) of this section. The selected method, known as the "consistent noticing method," shall comply with the public participation procedural requirements of §51.161 of this chapter and be used for all permits issued under this section and may, when appropriate, be supplemented by other noticing methods on individual permits.
- (1) Post the information in paragraphs (i)(1)(i) through (iii) of this section, for the duration of the public comment period, on a public Web site identified by the reviewing authority.
- (i) A notice of availability of the draft permit for public comment;
  - (ii) The draft permit; and
- (iii) Information on how to access the administrative record for the draft permit.
- (2) Publish a notice of availability of the draft permit for public comment in a newspaper of general circulation in the area where the source is located. The notice shall include information on how to access the draft permit and the administrative record for the draft permit.

[51 FR 40669, Nov. 7, 1986]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §51.165, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

EFFECTIVE DATE NOTE: At 76 FR 17552, Mar. 30, 2011,  $\S51.165$ , paragraphs (a)(1)(v)(G) and (v)(1)(vi)(C)(3) are stayed indefinitely.

# § 51.166 Prevention of significant deterioration of air quality.

- (a)(1) Plan requirements. In accordance with the policy of section 101(b)(1) of the Act and the purposes of section 160 of the Act, each applicable State Implementation Plan and each applicable Tribal Implementation Plan shall contain emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality.
- (2) Plan revisions. If a State Implementation Plan revision would result in increased air quality deterioration over any baseline concentration, the

plan revision shall include a demonstration that it will not cause or contribute to a violation of the applicable increment(s). If a plan revision proposing less restrictive requirements was submitted after August 7, 1977 but on or before any applicable baseline date and was pending action by the Administrator on that date, no such demonstration is necessary with respect to the area for which a baseline date would be established before final action is taken on the plan revision. Instead, the assessment described in paragraph (a)(4) of this section, shall review the expected impact to the applicable increment(s).

- (3) Required plan revision. If the State or the Administrator determines that a plan is substantially inadequate to prevent significant deterioration or that an applicable increment is being violated, the plan shall be revised to correct the inadequacy or the violation. The plan shall be revised within 60 days of such a finding by a State or within 60 days following notification by the Administrator, or by such later date as prescribed by the Administrator after consultation with the State.
- (4) Plan assessment. The State shall review the adequacy of a plan on a periodic basis and within 60 days of such time as information becomes available that an applicable increment is being violated.
- (5) Public participation. Any State action taken under this paragraph shall be subject to the opportunity for public hearing in accordance with procedures equivalent to those established in §51.102.
- (6) Amendments. (i) Any State required to revise its implementation plan by reason of an amendment to this section, with the exception of amendments to add new maximum allowable increases or other measures pursuant to section 166(a) of the Act, shall adopt and submit such plan revision to the Administrator for approval no later than 3 years after such amendment is published in the FEDERAL REG-ISTER. With regard to a revision to an implementation plan by reason of an amendment to paragraph (c) of this section to add maximum allowable increases or other measures, the State shall submit such plan revision to the

Administrator for approval within 21 months after such amendment is published in the FEDERAL REGISTER.

- (ii) Any revision to an implementation plan that would amend the provisions for the prevention of significant air quality deterioration in the plan shall specify when and as to what sources and modifications the revision is to take effect.
- (iii) Any revision to an implementation plan that an amendment to this section required shall take effect no later than the date of its approval and may operate prospectively.
- (7) Applicability. Each plan shall contain procedures that incorporate the requirements in paragraphs (a)(7)(i) through (vi) of this section.
- (i) The requirements of this section apply to the construction of any new major stationary source (as defined in paragraph (b)(1) of this section) or any project at an existing major stationary source in an area designated as attainment or unclassifiable under sections 107(d)(1)(A)(ii) or (iii) of the Act.
- (ii) The requirements of paragraphs (j) through (r) of this section apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as this section otherwise provides.
- (iii) No new major stationary source or major modification to which the requirements of paragraphs (j) through (r)(5) of this section apply shall begin actual construction without a permit that states that the major stationary source or major modification will meet those requirements.
- (iv) Each plan shall use the specific provisions of paragraphs (a)(7)(iv)(a) through (f) of this section. Deviations from these provisions will be approved only if the State specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding provisions in paragraphs (a)(7)(iv)(a) through (f) of this section.
- (a) Except as otherwise provided in paragraphs (a)(7)(v) and (vi) of this section, and consistent with the definition of major modification contained in paragraph (b)(2) of this section, a project is a major modification for a regulated NSR pollutant if it causes

two types of emissions increases—a significant emissions increase (as defined in paragraph (b)(39) of this section), and a significant net emissions increase (as defined in paragraphs (b)(3) and (b)(23) of this section). The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.

- (b) The procedure for calculating (before beginning actual construction) whether a significant emissions increase (i.e., the first step of the process) will occur depends upon the type of emissions units being modified, according to paragraphs (a)(7)(iv)(c) through (f) of this section. The procedure for calculating (before beginning actual construction) whether a significant net emissions increase will occur at the major stationary source (i.e., the second step of the process) is contained in the definition in paragraph (b)(3) of this section. Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.
- (c) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in paragraph (b)(40) of this section) and the baseline actual emissions (as defined in paragraphs (b)(47)(i) and (ii) of this section) for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).
- (d) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in paragraph (b)(4) of this section) from each new emissions unit following completion of the project and the baseline actual emissions (as defined in paragraph

(b)(47)(iii) of this section) of these units before the project equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).

- (e) [Reserved]
- (f) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in paragraphs (a)(7)(iv)(c) through (d) of this section as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).
- (v) The plan shall require that for any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with requirements under paragraph (w) of this section.
- (b) Definitions. All State plans shall use the following definitions for the purposes of this section. Deviations from the following wording will be approved only if the State specifically demonstrates that the submitted definition is more stringent, or at least as stringent, in all respects as the corresponding definitions below:
  - (1)(i) Major stationary source means:
- (a) Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant: Fossil fuel-fired steam electric plants of more than 250 million British thermal units 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 (with thermal dryers), primary copper smelters, municipal incinerators capable 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, conversion plants, sintering plants, secondary metal production

plants, chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140), fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants;

- (b) Notwithstanding the stationary source size specified in paragraph (b)(1)(i)(a) of this section, any stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or
- (c) Any physical change that would occur at a stationary source not otherwise qualifying under paragraph (b)(1) of this section, as a major stationary source if the change would constitute a major stationary source by itself.
- (ii) A major source that is major for volatile organic compounds or  $NO_{\rm X}$  shall be considered major for ozone.
- (iii) The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this section whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources:
- (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;
- (0) 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—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140:
- (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units 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 that 250 million British thermal units per hour heat input;
- (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.
- (2)(i) Major modification means any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase (as defined in paragraph (b)(39) of this section) of a regulated NSR pollutant (as defined in paragraph (b)(49) of this section); and a significant net emissions increase of that pollutant from the major stationary source.
- (ii) Any significant emissions increase (as defined at paragraph (b)(39) of this section) from any emissions units or net emissions increase (as defined in paragraph (b)(3) of this section) at a major stationary source that is significant for volatile organic compounds or  $NO_X$  shall be considered significant for ozone.
- (iii) A physical change or change in the method of operation shall not include:
- (a) Routine maintenance, repair and replacement. Routine maintenance, repair and replacement shall include, but not be limited to, any activity(s) that meets the requirements of the equipment replacement provisions contained in paragraph (y) of this section;

NOTE TO PARAGRAPH (b)(2)(iii)(a): On December 24, 2003, the second sentence of this paragraph (b)(2)(iii)(a) is stayed indefinitely by court order. The stayed provisions will

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become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

- (b) Use of an alternative fuel or raw material by reason of any order under section 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- (c) Use of an alternative fuel by reason of an order or rule under section 125 of the Act;
- (d) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
- (e) Use of an alternative fuel or raw material by a stationary source which:
- (1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or \$51.166; or
- (2) The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;
- (f) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or §51.166.
- (g) Any change in ownership at a stationary source.
- (h) [Reserved]
- (i) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:
- (1) The State implementation plan for the State in which the project is located; and
- (2) Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (j) The installation or operation of a permanent clean coal technology dem-

onstration project that constitutes repowering, provided that the project does not result in an increase in the potential to emit of any regulated pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis.

- (k) The reactivation of a very clean coal-fired electric utility steam generating unit.
- (iv) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under paragraph (w) of this section for a PAL for that pollutant. Instead, the definition at paragraph (w)(2)(viii) of this section shall apply.
- (v) Fugitive emissions shall not be included in determining for any of the purposes of this section whether a physical change in or change in the method of operation of a major stationary source is a major modification, unless the source belongs to one of the source categories listed in paragraph (b)(1)(iii) of this section.
- (3)(i) Net emissions increase means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:
- (a) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph (a)(7)(iv) of this section; and
- (b) 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 (b)(3)(i)(b) shall be determined as provided in paragraph (b)(47), except that paragraphs (b)(47)(i)(c) and (b)(47)(ii)(d) of this section shall not apply.
- (ii) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs within a reasonable period (to be specified by the State) before the date that the increase from the particular change occurs.

- (iii) An increase or decrease in actual emissions is creditable only if:
- (a) It occurs within a reasonable period (to be specified by the reviewing authority); and
- (b) The reviewing authority has not relied on it in issuing a permit for the source under regulations approved pursuant to this section, which permit is in effect when the increase in actual emissions from the particular change occurs; and
- (c) The increase or decrease in emissions did not occur at a Clean Unit, except as provided in paragraphs (t)(8) and (u)(10) of this section.
- (d) As it pertains to an increase or decrease in fugitive emissions (to the extent quantifiable), it occurs at an emissions unit that is part of one of the source categories listed in paragraph (b)(1)(iii) of this section or it occurs at an emission unit that is located at a major stationary source that belongs to one of the listed source categories. Fugitive emission increases or decreases are not included for those emissions units located at a facility whose primary activity is not represented by one of the source categories listed in paragraph (b)(1)(iii) of this section and that are not, by themselves, part of a listed source category.
- (iv) 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.
- (v) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
- (vi) A decrease in actual emissions is creditable only to the extent that:
- (a) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;
- (b) It is enforceable as a practical matter at and after the time that actual construction on the particular change begins;
- (c) It has approximately the same qualitative significance for public health and welfare as that attributed

to the increase from the particular change; and

- (vii) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
- (viii) Paragraph (b)(21)(ii) of this section shall not apply for determining creditable increases and decreases.
- (4) Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant. including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.
- (5) Stationary source means any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.
- (6)(i) Building, structure, facility, or installation means all of the pollutantemitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same Major Group (i.e., which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively).
- (ii) The plan may include the following provision: Notwithstanding the provisions of paragraph (b)(6)(i) of this section, building, structure, facility, or installation means, for onshore activities under SIC Major Group 13: Oil and Gas Extraction, all of the pollutant-

emitting activities included in Major Group 13 that are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant emitting activities shall be considered adjacent if they are located on the same surface site; or if they are located on surface sites that are located within 1/4 mile of one another (measured from the center of the equipment on the surface site) and they share equipment. Shared equipment includes, but is not limited to, produced fluids storage tanks, phase separators, natural gas dehydrators or emissions control devices. Surface site. as used in this paragraph (b)(6)(ii), has the same meaning as in 40 CFR 63.761.

- (7) Emissions unit means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric utility steam generating unit as defined in paragraph (b)(30) of this section. For purposes of this section, there are two types of emissions units as described in paragraphs (b)(7)(i) and (ii) of this section.
- (i) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.
- (ii) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph (b)(7)(i) of this section. A replacement unit, as defined in paragraph (b)(32) of this section, is an existing emissions unit.
- (8) Construction means 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.
- (9) Commence as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:
- (i) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- (ii) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without

substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

- (10) Necessary preconstruction approvals or permits means those permits or approvals required under Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the applicable State Implementation Plan.
- (11) Begin actual construction means, in general, initiation of physical onsite construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operation this term refers to those on-site activities, other than preparatory activities, which mark the initiation of the change.
- (12) Best available control technology means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each a regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR parts 60 and 61. If the reviewing authority determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control

technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.

- (13)(i) Baseline concentration means that ambient concentration level that exists in the baseline area at the time of the applicable minor source baseline date. A baseline concentration is determined for each pollutant for which a minor source baseline date is established and shall include:
- (a) The actual emissions, as defined in paragraph (b)(21) of this section, representative of sources in existence on the applicable minor source baseline date, except as provided in paragraph (b)(13)(ii) of this section;
- (b) The allowable emissions of major stationary sources that commenced construction before the major source baseline date, but were not in operation by the applicable minor source baseline date.
- (ii) The following will not be included in the baseline concentration and will affect the applicable maximum allowable increase(s):
- (a) Actual emissions, as defined in paragraph (b)(21) of this section, from any major stationary source on which construction commenced after the major source baseline date; and
- (b) Actual emissions increases and decreases, as defined in paragraph (b)(21) of this section, at any stationary source occurring after the minor source baseline date.
- (14)(i) Major source baseline date means:
- (a) In the case of  $PM_{10}$  and sulfur dioxide, January 6, 1975;
- (b) In the case of nitrogen dioxide, February 8, 1988; and
- (c) In the case of  $\mathrm{PM}_{2.5},$  October 20, 2010.
- (ii) Minor source baseline date means the earliest date after the trigger date on which a major stationary source or a major modification subject to 40 CFR 52.21 or to regulations approved pursuant to 40 CFR 51.166 submits a complete application under the relevant regulations. The trigger date is:
- (a) In the case of  $PM_{10}$  and sulfur dioxide, August 7, 1977;

- (b) In the case of nitrogen dioxide, February 8, 1988; and
- (c) In the case of  $PM_{2.5}$ , October 20, 2011.
- (iii) The baseline date is established for each pollutant for which increments or other equivalent measures have been established if:
- (a) The area in which the proposed source or modification would construct is designated as attainment or unclassifiable under section 107(d)(1)(A)(ii) or (iii) of the Act for the pollutant on the date of its complete application under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; and
- (b) In the case of a major stationary source, the pollutant would be emitted in significant amounts, or, in the case of a major modification, there would be a significant net emissions increase of the pollutant.
- (iv) Any minor source baseline date established originally for the TSP increments shall remain in effect and shall apply for purposes of determining the amount of available PM-10 increments, except that the reviewing authority may rescind any such minor source baseline date where it can be shown, to the satisfaction of the reviewing authority, that the emissions increase from the major stationary source, or the net emissions increase from the major modification, responsible for triggering that date did not result in a significant amount of PM-10 emissions.
- (15)(i) Baseline area means any intrastate area (and every part thereof) designated as attainment or unclassifiable under section 107(d)(1)(A)(ii) or (iii) of the Act in which the major source or major modification establishing the minor source baseline date would construct or would have an air quality impact for the pollutant for which the baseline date is established, as follows: Equal to or greater than 1  $\mu$ g/m³ (annual average) for SO<sub>2</sub>, NO<sub>2</sub>, or PM<sub>10</sub>; or equal or greater than 0.3  $\mu$ g/m³ (annual average) for PM<sub>2.5</sub>.
- (ii) Area redesignations under section 107(d)(1)(A)(ii) or (iii) of the Act cannot intersect or be smaller than the area of impact of any major stationary source or major modification which:

- (a) Establishes a minor source baseline date; or
- (b) Is subject to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166, and would be constructed in the same State as the State proposing the redesignation.
- (iii) Any baseline area established originally for the TSP increments shall remain in effect and shall apply for purposes of determining the amount of available PM-10 increments, except that such baseline area shall not remain in effect if the permit authority rescinds the corresponding minor source baseline date in accordance with paragraph (b)(14)(iv) of this section.
- (16) Allowable emissions means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
- (i) The applicable standards as set forth in 40 CFR parts 60 and 61;
- (ii) The applicable State Implementation Plan emissions limitation, including those with a future compliance date: or
- (iii) The emissions rate specified as a federally enforceable permit condition.
- (17) Federally enforceable means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the State implementation plan and expressly requires adherence to any permit issued under such program.
- (18) Secondary emissions means emissions which occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purposes of this section, secondary emissions must be specific, well defined, quantifiable, and

- impact the same general areas the stationary source modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.
- (19) Innovative control technology means any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.
- (20) Fugitive emissions means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- (21)(i) Actual emissions means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs (b)(21)(ii) through (iv) of this section, except that this definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL under paragraph (w) of this section. Instead, paragraphs (b)(40) and (b)(47) of this section shall apply for those purposes.
- (ii) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

- (iii) The reviewing authority may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
- (iv) For any emissions unit that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- (22) Complete means, in reference to an application for a permit, that the application contains all the information necessary for processing the application. Designating an application complete for purposes of permit processing does not preclude the reviewing authority from requesting or accepting any additional information.

(23)(i) Significant means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

## POLLUTANT AND EMISSIONS RATE

Carbon monoxide: 100 tons per year (tpy)

Nitrogen oxides: 40 tpy Sulfur dioxide: 40 tpy

Particulate matter: 25 tpy of particulate matter emissions. 15 tpy of PM<sub>10</sub> emissions PM<sub>2.5</sub>: 10 tpy of direct PM<sub>2.5</sub> emissions; 40 tpy of sulfur dioxide emissions; 40 tpy of nitrogen oxide emissions unless demonstrated not to be a PM<sub>2.5</sub> precursor under paragraph (b)(49) of this section

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<sub>2</sub>S): 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 octachlorinated dibenzo-p-dioxins and dibenzofurans):  $3.2 \times 10^{-6}$  megagrams per year ( $3.5 \times 10^{-6}$  tons per year)

Municipal waste combustor metals (measured as particulate matter): 14 megagrams per year (15 tons per year)

Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride): 36 megagrams per year (40 tons per year)

Municipal solid waste landfill emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year)

(ii) Significant means, in reference to a net emissions increase or the poten-

tial of a source to emit a regulated NSR pollutant that paragraph (b)(23)(i) of this section, does not list, any emissions rate.

- (iii) Notwithstanding paragraph (b)(23)(i) of this section, significant means any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact on such area equal to or greater than 1  $\mu$ g/m³ (24-hour average).
- (24) Federal Land Manager means, with respect to any lands in the United States, the Secretary of the department with authority over such lands.
- (25) *High terrain* means any area having an elevation 900 feet or more above the base of the stack of a source.
- (26) Low terrain means any area other than high terrain.
- (27) Indian Reservation means any federally recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.
- (28) Indian Governing Body means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.
- (29) Volatile organic compounds (VOC) is as defined in §51.100(s) of this part.
- (30) Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.
  - (31) [Reserved]
- (32) Replacement unit means an emissions unit for which all the criteria listed in paragraphs (b)(32)(i) through (iv) of this section are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.

- (i) The emissions unit is a reconstructed unit within the meaning of §60.15(b)(1) of this chapter, or the emissions unit completely takes the place of an existing emissions unit.
- (ii) The emissions unit is identical to or functionally equivalent to the replaced emissions unit.
- (iii) The replacement does not change the basic design parameter(s) (as discussed in paragraph (y)(2) of this section) of the process unit.
- (iv) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.
- (33) Clean coal technology means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.
- (34) Clean coal technology demonstration project means a project using funds appropriated under the heading "Department of Energy—Clean Coal Technology", up to a total amount of \$2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.
- (35) Temporary clean coal technology demonstration project means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during and after the project is terminated.
- (36)(i) Repowering means replacement of an existing coal-fired boiler with one

- of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.
- (ii) Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.
- (iii) The reviewing authority shall give expedited consideration to permit applications for any source that satisfies the requirements of this subsection and is granted an extension under section 409 of the Clean Air Act.
- (37) Reactivation of a very clean coalfired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:
- (i) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (ii) Was equipped prior to shutdown with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (iii) Is equipped with low- $NO_X$  burners prior to the time of commencement of operations following reactivation; and
- (iv) Is otherwise in compliance with the requirements of the Clean Air Act.
- (38) Pollution prevention means any activity that through process changes, product reformulation or redesign, or

substitution of less polluting raw materials, eliminates or reduces the release of air pollutants (including fugitive emissions) and other pollutants to the environment prior to recycling, treatment, or disposal; it does not mean recycling (other than certain "in-process recycling" practices), energy recovery, treatment, or disposal.

(39) Significant emissions increase means, for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph (b)(23) of this section) for that pollutant.

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

- (ii) In determining the projected actual emissions under paragraph (b)(40)(i) of this section (before beginning actual construction), the owner or operator of the major stationary source:
- (a) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved plan; and
- (b) Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions; and
- (c) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions

under paragraph (b)(47) of this section and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or.

(d) In lieu of using the method set out in paragraphs (b)(40)(ii)(a) through (c) of this section, may elect to use the emissions unit's potential to emit, in tons per year, as defined under paragraph (b)(4) of this section.

(41) [Reserved]

(42) Prevention of Significant Deterioration Program (PSD) program means a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of this section, or the program in §52.21 of this chapter. Any permit issued under such a program is a major NSR permit.

(43) Continuous emissions monitoring system (CEMS) means all of the equipment that may be required to meet the data acquisition and availability requirements of this section, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.

(44) Predictive emissions monitoring system (PEMS) means all of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O<sup>2</sup> or CO<sup>2</sup> concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

- (45) Continuous parameter monitoring system (CPMS) means all of the equipment necessary to meet the data acquisition and availability requirements of this section, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O² or CO² concentrations), and to record average operational parameter value(s) on a continuous basis.
- (46) Continuous emissions rate monitoring system (CERMS) means the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).

- (47) Baseline actual emissions means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs (b)(47)(i) through (iv) of this section.
- (i) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation.
- (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
- (b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.
- (c) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used For each regulated NSR pollutant.
- (d) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph (b)(47)(i)(b) of this section.
- (ii) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the re-

- viewing authority for a permit required either under this section or under a plan approved by the Administrator, whichever is earlier, except that the 10year period shall not include any period earlier than November 15, 1990.
- (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
- (b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.
- (c) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under part 63 of this chapter, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of §51.165(a)(3)(ii)(G).
- (d) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used For each regulated NSR pollutant.
- (e) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraphs (b)(47)(ii)(b) and (c) of this section
- (iii) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all

other purposes, shall equal the unit's potential to emit.

- (iv) For a PAL for a stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in paragraph (b)(47)(i) of this section, for other existing emissions units in accordance with the procedures contained in paragraph (b)(47)(ii) of this section, and for a new emissions unit in accordance with the procedures contained in paragraph (b)(47)(iii) of this section.
- (48) Subject to regulation means, for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act, or a nationally-applicable regulation codified by the Administrator in subchapter C of this chapter, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity. Except that:
- (i) Greenhouse gases (GHGs), the air pollutant defined in §86.1818-12(a) of this chapter as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation except as provided in paragraphs (b)(48)(iv) through (v) of this section.
- (ii) For purposes of paragraphs (b)(48)(iii) through (v) of this section, the term tpy  $CO_2$  equivalent emissions ( $CO_2e$ ) shall represent an amount of GHGs emitted, and shall be computed as follows:
- (a) Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of part 98 of this chapter—Global Warming Potentials. For purposes of this paragraph (b)(48)(ii)(a), prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material origi-

nating from plants, animals, or microorganisms (including products, byproducts, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material).

- (b) Sum the resultant value from paragraph (b)(48)(ii)(a) of this section for each gas to compute a tpy  $CO_2e$ .
- (iii) The term emissions increase as used in paragraphs (b)(48)(iv) through (v) of this section shall mean that both a significant emissions increase (as calculated using the procedures (a)(7)(iv) of this section) and a significant net emissions increase (as defined in paragraphs (b)(3) and (b)(23) of this section) occur. For the pollutant GHGs, an emissions increase shall be based on tpy CO2e, and shall be calculated assuming the pollutant GHGs is a regulated NSR pollutant, and "significant" is defined as 75,000 tpy CO<sub>2</sub>e instead of applying the value in paragraph (b)(23)(ii) of this section.
- (iv) Beginning January 2, 2011, the pollutant GHGs is subject to regulation if
- (a) The stationary source is a new major stationary source for a regulated NSR pollutant that is not GHGs, and also will emit or will have the potential to emit 75,000 tpy CO<sub>2</sub>e or more; or
- (b) The stationary source is an existing major stationary source for a regulated NSR pollutant that is not GHGs, and also will have an emissions increase of a regulated NSR pollutant, and an emissions increase of 75,000 tpy CO<sub>2</sub>e or more; and,
- (49) Regulated NSR pollutant, for purposes of this section, means the following:
- (i) Any pollutant for which a national ambient air quality standard has been promulgated. This includes, but is not limited to, the following:
- (a) PM<sub>2.5</sub> emissions and PM<sub>10</sub> emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. On or after January 1, 2011, such condensable particulate matter shall be accounted for in

applicability determinations and in establishing emissions limitations for PM<sub>2.5</sub> and PM<sub>10</sub> in PSD permits. Compliance with emissions limitations for  $PM_{\rm 2.5}$  and  $PM_{\rm 10}$  issued prior to this date shall not be based on condensable particulate matter unless required by the terms and conditions of the permit or the applicable implementation plan. Applicability determinations made prior to this date without accounting for condensable particulate matter shall not be considered in violation of this section unless the applicable implementation plan required condensable particulate matter to be included:

- (b) Any pollutant identified under this paragraph (b)(49)(i)(b) as a constituent or precursor to a pollutant for which a national ambient air quality standard has been promulgated. Precursors identified by the Administrator for purposes of NSR are the following:
- (1) Volatile organic compounds and nitrogen oxides are precursors to ozone in all attainment and unclassifiable areas.
- (2) Sulfur dioxide is a precursor to  $PM_{2.5}$  in all attainment and unclassifiable areas.
- (3) Nitrogen oxides are presumed to be precursors to  $PM_{2.5}$  in all attainment and unclassifiable areas, unless the State demonstrates to the 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.
- (4) Volatile organic compounds are presumed not to be precursors to  $PM_{2.5}$  in any attainment or unclassifiable area, unless the State demonstrates to the 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.
- (ii) Any pollutant that is subject to any standard promulgated under section 111 of the Act;
- (iii) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Act;
- (iv) Any pollutant that otherwise is subject to regulation under the Act as

defined in paragraph (b)(48) of this section.

- (v) Notwithstanding paragraphs (b)(49)(i) through (iv) of this section, the term regulated NSR pollutant shall not include any or all hazardous air pollutants either listed in section 112 of the Act, or added to the list pursuant to section 112(b)(2) of the Act, and which have not been delisted pursuant to section 112(b)(3) of the Act, unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Act.
- (50) Reviewing authority means the State air pollution control agency, local agency, other State agency, Indian tribe, or other agency authorized by the Administrator to carry out a permit program under §51.165 and this section, or the Administrator in the case of EPA-implemented permit programs under §52.21 of this chapter.
- (51) *Project* means a physical change in, or change in method of operation of, an existing major stationary source.
- (52) Lowest achievable emission rate (LAER) is as defined in §51.165(a)(1)(xiii).
- (53)(i) In general, process unit means any collection of structures and/or equipment that processes, assembles, applies, blends, or otherwise uses material inputs to produce or store an intermediate or a completed product. A single stationary source may contain more than one process unit, and a process unit may contain more than one emissions unit.
- (ii) Pollution control equipment is not part of the process unit, unless it serves a dual function as both process and control equipment. Administrative and warehousing facilities are not part of the process unit.
- (iii) For replacement cost purposes, components shared between two or more process units are proportionately allocated based on capacity.
- (iv) The following list identifies the process units at specific categories of stationary sources.
- (a) For a steam electric generating facility, the process unit consists of those portions of the plant that contribute directly to the production of electricity. For example, at a pulverized coal-fired facility, the process unit

would generally be the combination of those systems from the coal receiving equipment through the emission stack (excluding post-combustion pollution controls), including the coal handling equipment, pulverizers or coal crushers, feedwater heaters, ash handling, boiler, burners, turbine-generator set, condenser, cooling tower, water treatment system, air preheaters, and operating control systems. Each separate generating unit is a separate process unit.

- (b) For a petroleum refinery, there are several categories of process units: those that separate and/or distill petroleum feedstocks; those that change molecular structures; petroleum treating processes; auxiliary facilities, such as steam generators and hydrogen production units; and those that load, unload, blend or store intermediate or completed products.
- (c) For an incinerator, the process unit would consist of components from the feed pit or refuse pit to the stack, including conveyors, combustion devices, heat exchangers and steam generators, quench tanks, and fans.

NOTE TO PARAGRAPH (b)(53): By a court order on December 24, 2003, this paragraph (b)(53) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(54) Functionally equivalent component means a component that serves the same purpose as the replaced component.

NOTE TO PARAGRAPH (b)(54): By a court order on December 24, 2003, this paragraph (b)(54) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(55) Fixed capital cost means the capital needed to provide all the depreciable components. "Depreciable components" refers to all components of fixed capital cost and is calculated by subtracting land and working capital from the total capital investment, as defined in paragraph (b)(56) of this section.

NOTE TO PARAGRAPH (b)(55): By a court order on December 24, 2003, this paragraph (b)(55) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(56) Total capital investment means the sum of the following: all costs required to purchase needed process equipment (purchased equipment costs); the costs of labor and materials for installing that equipment (direct installation costs); the costs of site preparation and buildings; other costs such as engineering, construction and field expenses, fees to contractors, startup and performance tests, and contingencies (indirect installation costs); land for the process equipment; and working capital for the process equipment.

NOTE TO PARAGRAPH (b)(56): By a court order on December 24, 2003, this paragraph (b)(56) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(c) Ambient air increments and other measures. (1) The plan shall contain emission limitations and such other measures as may be necessary to assure that in areas designated as Class I, II, or III, increases in pollutant concentrations over the baseline concentration shall be limited to the following:

Pollutant	Maximum allowable increase (micrograms per cubic meter)
Class I Area	
PM <sub>2.5</sub> : Annual arithmetic mean 24-hr maximum	
PM <sub>10</sub> :	

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Pollutant	Maximum allowable increase (micrograms per cubic meter)
Annual arithmetic mean	4
24-hr maximum	8
Sulfur dioxide:	0
Annual arithmetic mean	2 5
24-hr maximum	25
Nitrogen dioxide:	25
Annual arithmetic mean	2.5
, under until the control of the con	
Class II Area	
PM <sub>2</sub> s;	
Annual arithmetic mean	4
24-hr maximum	9
PM <sub>10</sub> :	
Annual arithmetic mean	17
24-hr maximum	30
Sulfur dioxide:	
Annual arithmetic mean	20
24-hr maximum	91
3-hr maximum	512
Nitrogen dioxide:	0.5
Annual arithmetic mean	25
Class III Area	
PM <sub>2</sub> ;:	
Annual arithmetic mean	8
24-hr maximum	18
PM <sub>10</sub> :	
Annual arithmetic mean	34
24-hr maximum	60
Sulfur dioxide:	
Annual arithmetic mean	40
24-hr maximum	182
3-hr maximum	700
Nitrogen dioxide:	-
Annual arithmetic mean	50

For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

(2) Where the State can demonstrate that it has alternative measures in its plan other than maximum allowable increases as defined under paragraph (c)(1) of this section, that satisfy the requirements in sections 166(c) and 166(d) of the Clean Air Act for a regulated NSR pollutant for which the Administrator has established maximum allowable increases pursuant to section 166(a) of the Act, the requirements for maximum allowable increases for that pollutant under paragraph (c)(1) of this section shall not apply upon approval of the plan by the Administrator. The following regulated NSR pollutants are eligible for such treatment:

- (i) Nitrogen dioxide.
- (ii)  $PM_{2.5}$ .
- (d) Ambient air ceilings. The plan shall provide that no concentration of a pollutant shall exceed:
- (1) The concentration permitted under the national secondary ambient air quality standard, or
- (2) The concentration permitted under the national primary ambient air quality standard, whichever concentration is lowest for the pollutant for a period of exposure.
- (e) Restrictions on area classifications. The plan shall provide that—  $\,$
- (1) All of the following areas which were in existence on August 7, 1977, shall be Class I areas and may not be redesignated:
- (i) International parks,
- (ii) National wilderness areas which exceed 5,000 acres in size,

- (iii) National memorial parks which exceed 5,000 acres in size, and
- (iv) National parks which exceed 6,000 acres in size.
- (2) Areas which were redesignated as Class I under regulations promulgated before August 7, 1977, shall remain Class I, but may be redesignated as provided in this section.
- (3) Any other area, unless otherwise specified in the legislation creating such an area, is initially designated Class II, but may be redesignated as provided in this section.
- (4) The following areas may be redesignated only as Class I or II:
- (i) 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 wild-life refuge, a national lakeshore or seashore: and
- (ii) A national park or national wilderness area established after August 7, 1977, which exceeds 10.000 acres in size.
- (f) Exclusions from increment consumption. (1) The plan may provide that the following concentrations shall be excluded in determining compliance with a maximum allowable increase:
- (i) Concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum products, natural gas, or both by reason of an order in effect under section 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order;
- (ii) Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of natural gas curtailment plan in effect pursuant to the Federal Power Act over the emissions from such sources before the effective date of such plan;
- (iii) Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources;
- (iv) The increase in concentrations attributable to new sources outside the United States over the concentrations

- attributable to existing sources which are included in the baseline concentration; and
- (v) Concentrations attributable to the temporary increase in emissions of sulfur dioxide, particulate matter, or nitrogen oxides from stationary sources which are affected by plan revisions approved by the Administrator as meeting the criteria specified in paragraph (f)(4) of this section.
- (2) If the plan provides that the concentrations to which paragraph (f)(1) (i) or (ii) of this section, refers shall be excluded, it shall also provide that no exclusion of such concentrations shall apply more than five years after the effective date of the order to which paragraph (f)(1)(i) of this section, refers or the plan to which paragraph (f)(1)(ii) of this section, refers, whichever is applicable. If both such order and plan are applicable, no such exclusion shall apply more than five years after the later of such effective dates.
  - (3) [Reserved]
- (4) For purposes of excluding concentrations pursuant to paragraph (f)(1)(v) of this section, the Administrator may approve a plan revision that:
- (i) Specifies the time over which the temporary emissions increase of sulfur dioxide, particulate matter, or nitrogen oxides would occur. Such time is not to exceed 2 years in duration unless a longer time is approved by the Administrator.
- (ii) Specifies that the time period for excluding certain contributions in accordance with paragraph (f)(4)(i) of this section, is not renewable;
- (iii) Allows no emissions increase from a stationary source which would:
- (a) Impact a Class I area or an area where an applicable increment is known to be violated; or
- (b) Cause or contribute to the violation of a national ambient air quality standard;
- (iv) Requires limitations to be in effect the end of the time period specified in accordance with paragraph (f)(4)(i) of this section, which would ensure that the emissions levels from stationary sources affected by the plan revision would not exceed those levels occurring from such sources before the plan revision was approved.

- (g) Redesignation. (1) The plan shall provide that all areas of the State (except as otherwise provided under paragraph (e) of this section) shall be designated either Class I, Class II, or Class III. Any designation other than Class II shall be subject to the redesignation procedures of this paragraph. Redesignation (except as otherwise precluded by paragraph (e) of this section) may be proposed by the respective States or Indian Governing Bodies, as provided below, subject to approval by the Administrator as a revision to the applicable State implementation plan.
- (2) The plan may provide that the State may submit to the Administrator a proposal to redesignate areas of the State Class I or Class II: *Provided*. That:
- (i) At least one public hearing has been held in accordance with procedures established in §51.102.
- (ii) Other States, Indian Governing Bodies, and Federal Land Managers whose lands may be affected by the proposed redesignation were notified at least 30 days prior to the public hearing:
- (iii) A discussion of the reasons for the proposed redesignation, including a satisfactory description and analysis of the health, environmental, economic, social, and energy effects of the proposed redesignation, was prepared and made available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing contained appropriate notification of the availability of such discussion:
- (iv) Prior to the issuance of notice respecting the redesignation of an area that includes any Federal lands, the State has provided written notice to the appropriate Federal Land Manager and afforded adequate opportunity (not in excess of 60 days) to confer with the State respecting the redesignation and to submit written comments and recommendations. In redesignating any area with respect to which any Federal Land Manager had submitted written comments and recommendations, the State shall have published a list of any inconsistency between such redesignation and such comments and recommendations (together with the reasons for making such redesignation

- against the recommendation of the Federal Land Manager); and
- (v) The State has proposed the redesignation after consultation with the elected leadership of local and other substate general purpose governments in the area covered by the proposed redesignation.
- (3) The plan may provide that any area other than an area to which paragraph (e) of this section refers may be redesignated as Class III if—
- (i) The redesignation would meet the requirements of provisions established in accordance with paragraph (g)(2) of this section;
- (ii) The redesignation, except any established by an Indian Governing Body, has been specifically approved by the Governor of the State, after consultation with the appropriate committees of the legislature, if it is in session, or with the leadership of the legislature, if it is not in session (unless State law provides that such redesignation must be specifically approved by State legislation) and if general purpose units of local government representing a majority of the residents of the area to be redesignated enact legislation (including resolutions where appropriate) concurring in the redesignation;
- (iii) The redesignation would not cause, or contribute to, a concentration of any air pollutant which would exceed any maximum allowable increase permitted under the classification of any other area or any national ambient air quality standard; and
- (iv) Any permit application for any major stationary source or major modification subject to provisions established in accordance with paragraph (l) of this section which could receive a permit only if the area in question were redesignated as Class III, and any material submitted as part of that application, were available, insofar as was practicable, for public inspection prior to any public hearing on redesignation of any area as Class III.
- (4) The plan shall provide that lands within the exterior boundaries of Indian Reservations may be redesignated only by the appropriate Indian Governing Body. The appropriate Indian Governing Body may submit to the Administrator a proposal to redesignate

areas Class I, Class II, or Class III: Provided, That:

- (i) The Indian Governing Body has followed procedures equivalent to those required of a State under paragraphs (g) (2), (3)(iii), and (3)(iv) of this section; and
- (ii) Such redesignation is proposed after consultation with the State(s) in which the Indian Reservation is located and which border the Indian Reservation.
- (5) The Administrator shall disapprove, within 90 days of submission, a proposed redesignation of any area only if he finds, after notice and opportunity for public hearing, that such redesignation does not meet the procedural requirements of this section or is inconsistent with paragraph (e) of this section. If any such disapproval occurs, the classification of the area shall be that which was in effect prior to the redesignation which was disapproved.
- (6) If the Administrator disapproves any proposed area designation, the State or Indian Governing Body, as appropriate, may resubmit the proposal after correcting the deficiencies noted by the Administrator.
- (h) Stack heights. The plan shall provide, as a minimum, that the degree of emission limitation required for control of any air pollutant under the plan shall not be affected in any manner by—
- (1) So much of a stack height, not in existence before December 31, 1970, as exceeds good engineering practice, or
- (2) Any other dispersion technique not implemented before then.
- (i) Exemptions. (1) The plan may provide that requirements equivalent to those contained in paragraphs (j) through (r) of this section do not apply to a particular major stationary source or major modification if:
- (i) The major stationary source would be a nonprofit health or nonprofit educational institution or a major modification that would occur at such an institution; or
- (ii) The source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modi-

fication and such source does not belong to any 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—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
- (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units 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 British thermal units per hour heat input;
- (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act; or
- (iii) The source or modification is a portable stationary source which has previously received a permit under requirements equivalent to those contained in paragraphs (j) through (r) of this section, if:

- (a) The source proposes to relocate and emissions of the source at the new location would be temporary; and
- (b) The emissions from the source would not exceed its allowable emissions; and
- (c) The emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated; and
- (d) Reasonable notice is given to the reviewing authority prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the reviewing authority not less than 10 days in advance of the proposed relocation unless a different time duration is previously approved by the reviewing authority.
- (2) The plan may provide that requirements equivalent to those contained in paragraphs (j) through (r) of this section do not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment under section 107 of the Act. Nonattainment designations for revoked NAAQS, as contained in part 81 of this chapter, shall not be viewed as current designations under section 107 of the Act for purposes of determining the applicability of requirements equivalent to those contained in paragraphs (j) through (r) of this section to a major stationary source or major modification after the revocation of that NAAQS is effective.
- (3) The plan may provide that requirements equivalent to those contained in paragraphs (k), (m), and (o) of this section do not apply to a proposed major stationary source or major modification with respect to a particular pollutant, if the allowable emissions of that pollutant from a new source, or the net emissions increase of that pollutant from a modification, would be temporary and impact no Class I area and no area where an applicable increment is known to be violated.
- (4) The plan may provide that requirements equivalent to those contained in paragraphs (k), (m), and (o) of

- this section as they relate to any maximum allowable increase for a Class II area do not apply to a modification of a major stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each a regulated NSR pollutant from the modification after the application of best available control technology would be less than 50 tons per year.
- (5) The plan may provide that the reviewing authority may exempt a proposed major stationary source or major modification from the requirements of paragraph (m) of this section, with respect to monitoring for a particular pollutant, if:
- (i) The emissions increase of the pollutant from a new stationary source or the net emissions increase of the pollutant from a modification would cause, in any area, air quality impacts less than the following amounts:
- (a) Carbon monoxide—575 ug/m³, 8-hour average;
- (b) Nitrogen dioxide—14 ug/m³, annual average;
  - (c)  $PM_{2.5}$ —0  $\mu g/m^3$ ;

NOTE TO PARAGRAPH (i)(5)(i)(c): In accordance with Sierra Club v. EPA, 706 F.3d 428 (D.C. Cir. 2013), no exemption is available with regard to PM $_{2.5}$ .

- (d)  $PM_{10}$ -10  $\mu g/m^3$ , 24-hour average;
- (e) Sulfur dioxide—13 ug/m³, 24-hour average;
  - (f) Ozone; 1
- (q) Lead—0.1 μg/m<sup>3</sup>, 3-month average.
- (h) Fluorides—0.25  $\mu$ g/m³, 24-hour average;
- (i) Total reduced sulfur—10  $\mu g/m^3$ , 1-hour average
- (j) Hydrogen sulfide—0.2 μg/m³, 1-hour average:
- (k) Reduced sulfur compounds—10 μg/m³, 1-hour average; or
- (ii) The concentrations of the pollutant in the area that the source or modification would affect are less than the concentrations listed in paragraph (i)(5)(i) of this section; or

<sup>&</sup>lt;sup>1</sup>No *de minimis* air quality level is provided for ozone. However, any net emissions increase of 100 tons per year or more of volatile organic compounds or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of air quality data.

- (iii) The pollutant is not listed in paragraph (i)(5)(i) of this section.
- (6) If EPA approves a plan revision under 40 CFR 51.166 as in effect before August 7, 1980, any subsequent revision which meets the requirements of this section may contain transition provisions which parallel the transition provisions of 40 CFR 52.21(i)(9), (i)(10) and (m)(1)(v) as in effect on that date, which provisions relate to requirements for best available control technology and air quality analyses. Any such subsequent revision may not contain any transition provision which in the context of the revision would operate any less stringently than would its counterpart in 40 CFR 52.21.
- (7) If EPA approves a plan revision under §51.166 as in effect [before July 31, 1987], any subsequent revision which meets the requirements of this section may contain transition provisions which parallel the transition provisions of §52.21 (i)(11), and (m)(1) (vii) and (viii) of this chapter as in effect on that date, these provisions being related to monitoring requirements for particulate matter. Any such subsequent revision may not contain any transition provision which in the context of the revision would operate any less stringently than would its counterpart in §52.21 of this chapter.
- (8) The plan may provide that the permitting requirements equivalent to those contained in paragraph (k)(1)(ii) of this section do not apply to a stationary source or modification with respect to any maximum allowable increase for nitrogen oxides if the owner or operator of the source or modification submitted an application for a permit under the applicable permit program approved or promulgated under the Act before the provisions embodying the maximum allowable increase took effect as part of the plan and the permitting authority subsequently determined that the application as submitted before that date was complete.
- (9) The plan may provide that the permitting requirements equivalent to those contained in paragraph (k)(1)(ii) of this section shall not apply to a stationary source or modification with respect to any maximum allowable increase for PM-10 if (i) the owner or operator of the source or modification

- submitted an application for a permit under the applicable permit program approved under the Act before the provisions embodying the maximum allowable increases for PM-10 took effect as part of the plan, and (ii) the permitting authority subsequently determined that the application as submitted before that date was complete. Instead, the applicable requirements equivalent to paragraph (k)(1)(ii) shall apply with respect to the maximum allowable increases for TSP as in effect on the date the application was submitted.
- (10) The plan may provide that the requirements of paragraph (k)(1) of this section shall not apply to a stationary source or modification with respect to the national ambient air quality standards for PM<sub>2.5</sub> in effect on March 18, 2013 if:
- (i) The reviewing authority has determined a permit application subject to this section to be complete on or before December 14, 2012. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for  $PM_{2.5}$  in effect at the time the reviewing authority determined the permit application to be complete; or
- (ii) The reviewing authority has first published before March 18, 2013 a public notice of a preliminary determination for the permit application subject to this section. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for  $PM_{2.5}$  in effect at the time of first publication of a public notice on the preliminary determination.
- (11) The plan may provide that the requirements of paragraph (k)(1) of this section shall not apply to a permit application for a stationary source or modification with respect to the revised national ambient air quality standards for ozone published on October 26, 2015 if:
- (i) The reviewing authority has determined the permit application subject to this section to be complete on or before October 1, 2015. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards

for ozone in effect at the time the reviewing authority determined the permit application to be complete; or

- (ii) The reviewing authority has first published before December 28, 2015 a public notice of a preliminary determination or draft permit for the permit application subject to this section. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for ozone in effect at the time of first publication of a public notice of the preliminary determination or draft permit.
- (j) Control technology review. The plan shall provide that:
- (1) A major stationary source or major modification shall meet each applicable emissions limitation under the State Implementation Plan and each applicable emission standards and standard of performance under 40 CFR parts 60 and 61.
- (2) A new major stationary source shall apply best available control technology for each a regulated NSR pollutant that it would have the potential to emit in significant amounts.
- (3) A major modification shall apply best available control technology for each a regulated NSR pollutant for which it would be a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.
- (4) For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the least reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.
- (k) Source impact analysis—(1) Required demonstration. The plan shall provide that the owner or operator of the proposed source or modification shall demonstrate that allowable emis-

- sion increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reduction (including secondary emissions), would not cause or contribute to air pollution in violation of:
- (i) Any national ambient air quality standard in any air quality control region; or
- (ii) Any applicable maximum allowable increase over the baseline concentration in any area.
  - (2) [Reserved]
- (1) Air quality models. The plan shall provide for procedures which specify that—
- (1) All applications of air quality modeling involved in this subpart shall be based on the applicable models, data bases, and other requirements specified in appendix W of this part (Guideline on Air Quality Models).
- (2) Where an air quality model specified in appendix W of this part (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific State program. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in §51.102.
- (m) Air quality analysis—(1) Preapplication analysis. (i) The plan shall provide that any application for a permit under regulations approved pursuant to this section shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:
- (a) For the source, each pollutant that it would have the potential to emit in a significant amount;
- (b) For the modification, each pollutant for which it would result in a significant net emissions increase.
- (ii) The plan shall provide that, with respect to any such pollutant for which no National Ambient Air Quality Standard exists, the analysis shall contain such air quality monitoring data as the reviewing authority determines

is necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.

- (iii) The plan shall provide that with respect to any such pollutant (other than nonmethane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maxiumum allowable increase.
- (iv) The plan shall provide that, in general, the continuous air monitoring data that is required shall have been gathered over a period of one year and shall represent the year preceding receipt of the application, except that, if the reviewing authority determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than four months), the data that is required shall have been gathered over at least that shorter period.
- (v) The plan may provide that the owner or operator of a proposed major stationary source or major modification of volatile organic compounds who satisfies all conditions of 40 CFR part 51 appendix S, section IV may provide postapproval monitoring data for ozone in lieu of providing preconstruction data as required under paragraph (m)(1) of this section.
- (2) Post-construction monitoring. The plan shall provide that the owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the reviewing authority determines is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in any area.
- (3) Operation of monitoring stations. The plan shall provide that the owner or operator of a major stationary source or major modification shall meet the requirements of appendix B to part 58 of this chapter during the operation of monitoring stations for pur-

poses of satisfying paragraph (m) of this section.

- (n) Source information. (1) The plan shall provide that the owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or make any determination required under procedures established in accordance with this section.
- (2) The plan may provide that such information shall include:
- (i) 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;
- (ii) A detailed schedule for construction of the source or modification;
- (iii) A detailed description as to what system of continuous emission reduction is planned by the source or modification, emission estimates, and any other information as necessary to determine that best available control technology as applicable would be applied;
- (3) The plan shall provide that upon request of the State, the owner or operator shall also provide information on:
- (i) The air quality impact of the source or modification, including meteorological and topographical data necessary to estimate such impact; and
- (ii) The air quality impacts and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.
- (o) Additional impact analyses. The plan shall provide that—
- (1) The owner or operator shall provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.
- (2) The owner or operator shall provide an analysis of the air quality impact projected for the area as a result

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of general commercial, residential, industrial, and other growth associated with the source or modification.

- (p) Sources impacting Federal Class I areas—additional requirements—(1) Notice to EPA. The plan shall provide that the reviewing authority shall transmit to the Administrator a copy of each permit application relating to a major stationary source or major modification and provide notice to the Administrator of every action related to the consideration of such permit.
- (2) Federal Land Manager. The Federal Land Manager and the Federal official charged with direct responsibility for management of Class I lands have an affirmative responsibility to protect the air quality related values (including visibility) of any such lands and to consider, in consultation with the Administrator, whether a proposed source or modification would have an adverse impact on such values.
- (3) Denial—impact on air quality related values. The plan shall provide a mechanism whereby a Federal Land Manager of any such lands may present to the State, after the reviewing authority's preliminary determination required under procedures developed in accordance with paragraph (r) of this section, a demonstration that the emissions from the proposed source or modification would have an adverse impact on the air quality-related values (including visibility) of any Fed-

eral mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the State concurs with such demonstration, the reviewing authority shall not issue the permit.

(4) Class I Variances. The plan may provide that the owner or operator of a proposed source or modification may demonstrate to the Federal Land Manager that the emissions from such source would have no adverse impact on the air quality related values of such lands (including visibility), notwithstanding that the change in air quality resulting from emissions from such source or modification would cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the Federal land manager concurs with such demonstration and so certifies to the State, the reviewing authority may: Provided, That applicable requirements are otherwise met, issue the permit with such emission limitations as may be necessary to assure that emissions of sulfur dioxide,  $PM_{2.5}$ ,  $PM_{10}$ , and nitrogen oxides would not exceed the following maximum allowable increases over minor source baseline concentration for such pollutants:

Pollutant	Maximum allowable increase (micrograms per cubic meter)
PM <sub>2</sub> s:	
Annual arithmetic mean	4
24-hr maximum	9
$PM_{10}$ :	
Annual arithmetic mean	17
24-hr maximum	30
Sulfur dioxide:	
Annual arithmetic mean	20
24-hr maximum	91
3-hr maximum	325
Nitrogen dioxide:	
Annual arithmetic mean	25

- (5) Sulfur dioxide variance by Governor with Federal Land Manager's concurrence. The plan may provide that—
- (i) The owner or operator of a proposed source or modification which

cannot be approved under procedures developed pursuant to paragraph (q)(4) of this section may demonstrate to the Governor that the source or modification cannot be constructed by reason of

any maximum allowable increase for sulfur dioxide for periods of twenty-four hours or less applicable to any Class I area and, in the case of Federal mandatory Class I areas, that a variance under this clause would not adversely affect the air quality related values of the area (including visibility):

- (ii) The Governor, after consideration of the Federal Land Manager's recommendation (if any) and subject to his concurrence, may grant, after notice and an opportunity for a public hearing, a variance from such maximum allowable increase; and
- (iii) If such variance is granted, the reviewing authority may issue a permit to such source or modification in accordance with provisions developed pursuant to paragraph (q)(7) of this section: *Provided*, That the applicable requirements of the plan are otherwise met.
- (6) Variance by the Governor with the President's concurrence. The plan may provide that—
- (i) The recommendations of the Governor and the Federal Land Manager shall be transferred to the President in any case where the Governor recommends a variance in which the Federal Land Manager does not concur;
- (ii) The President may approve the Governor's recommendation if he finds that such variance is in the national interest; and
- (iii) If such a variance is approved, the reviewing authority may issue a permit in accordance with provisions developed pursuant to the requirements of paragraph (q)(7) of this section: *Provided*, That the applicable requirements of the plan are otherwise met.
- (7) Emission limitations for Presidential or gubernatorial variance. The plan shall provide that in the case of a permit issued under procedures developed pursuant to paragraph (q) (5) or (6) of this section, the source or modification shall comply with emission limitations as may be necessary to assure that emissions of sulfur dioxide from the source or modification would not (during any day on which the otherwise applicable maximum allowable increases are exceeded) cause or contribute to concentrations which would exceed the

following maximum allowable increases over the baseline concentration and to assure that such emissions would not cause or contribute to concentrations which exceed the otherwise applicable maximum allowable increases for periods of exposure of 24 hours or less for more than 18 days, not necessarily consecutive, during any annual period:

MAXIMUM ALLOWABLE INCREASE
[Micrograms per cubic meter]

Paried of expenses	Terrain	areas
Period of exposure	Low	High
24-hr maximum	36 130	62 221

- (q) Public participation. The plan shall provide that—
- (1) The reviewing authority shall notify all applicants within a specified time period as to the completeness of the application or any deficiency in the application or information submitted. In the event of such a deficiency, the date of receipt of the application shall be the date on which the reviewing authority received all required information.
- (2) Within one year after receipt of a complete application, the reviewing authority shall:
- (i) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.
- (ii) Make available in at least one location in each region in which the proposed source would be constructed, a copy of all materials the applicant submitted, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination. This requirement may be met by making these materials available at a physical location or on a public Web site identified by the reviewing authority.
- (iii) Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the

source or modification, and of the opportunity for comment at a public hearing as well as through written public comment. Alternatively, these notifications may be made on a public Web site identified by the reviewing authority. However, the reviewing authority's selected notification method (i.e., either newspaper or Web site), known as the "consistent noticing method," shall be used for all permits subject to notice under this section and may, when appropriate, be supplemented by other noticing methods on individual permits. If the reviewing authority selects Web site notice as its consistent noticing method, the notice shall be available for the duration of the public comment period and shall include the notice of public comment, the draft permit, information on how to access the administrative record for the draft permit and how to request and/or attend a public hearing on the draft permit.

- (iv) Send a copy of the notice of public comment to the applicant, the Administrator and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: Any other State or local air pollution control agencies, the chief executives of the city and county where the source would be located; any comprehensive regional land use planning agency, and any State, Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification.
- (v) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations.
- (vi) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing in making a final decision on the approvability of the application. The reviewing authority shall make all comments available for public inspection at the same physical location or on the same Web site where the reviewing authority made available

preconstruction information relating to the proposed source or modification.

- (vii) Make a final determination whether construction should be approved, approved with conditions, or disapproved.
- (viii) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location or on the same Web site where the reviewing authority made available preconstruction information and public comments relating to the proposed source or modification.
- (r) Source obligation. (1) The plan shall include enforceable procedures to provide that approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the plan and any other requirements under local, State or Federal law.
- (2) The plan shall provide that at such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of paragraphs (j) through (s) of this section shall apply to the source or modification as though construction had not yet commenced on the source or modification.
  - (3)-(5) [Reserved]
- (6) Each plan shall provide that, except as otherwise provided in paragraph (r)(6)(vi) of this section, the following specific provisions apply with respect to any regulated NSR pollutant emitted from projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility, within the meaning of paragraph (r)(6)(vi) of this section, that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant, and the owner or operator elects to use the method specified in paragraphs (b)(40)(ii)(a) through (c) of this section for calculating projected actual emissions. Deviations from these provisions will be approved

only if the State specifically demonstrates that the submitted provisions are more stringent than or at least as stringent in all respects as the corresponding provisions in paragraphs (r)(6)(i) through (vi) of this section.

- (i) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
  - (a) A description of the project;
- (b) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
- (c) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph (b)(40)(ii)(c) of this section and an explanation for why such amount was excluded, and any netting calculations, if applicable.
- (ii) If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in paragraph (r)(6)(i) of this section to the reviewing authority. Nothing in this paragraph (r)(6)(ii) shall be construed to require the owner or operator of such a unit to obtain any determination from the reviewing authority before beginning actual construction.
- (iii) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in paragraph (r)(6)(i)(b) of this section; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emis-
- (iv) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority within 60

days after the end of each year during which records must be generated under paragraph (r)(6)(iii) of this section setting out the unit's annual emissions during the calendar year that preceded submission of the report.

- (v) If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority if the annual emissions, in tons per year, from the project identified in paragraph (r)(6)(i) of this section, exceed the baseline actual emissions (as documented and maintained pursuant to paragraph (r)(6)(i)(c) of this section) by a significant amount (as defined in paragraph (b)(23) of this section) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (r)(6)(i)(c) of this section. Such report shall be submitted to the reviewing authority within 60 days after the end of such year. The report 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 (r)(6)(iii) of this section; and
- (c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).
- (vi) A "reasonable possibility" under paragraph (r)(6) of this section occurs when the owner or operator calculates the project to result in either:
- (a) A projected actual emissions increase of at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph (b)(39) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant; or
- (b) A projected actual emissions increase that, added to the amount of emissions excluded under paragraph (b)(40)(ii)(c), sums to at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph (b)(39) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant. For a

project for which a reasonable possibility occurs only within the meaning of paragraph (r)(6)(vi)(b) of this section, and not also within the meaning of paragraph (a)(6)(vi)(a) of this section, then provisions (a)(6)(ii) through (v) do not apply to the project.

- (7) Each plan shall provide that the owner or operator of the source shall make the information required to be documented and maintained pursuant to paragraph (r)(6) of this section available for review upon request for inspection by the reviewing authority or the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of this chapter.
- (s) Innovative control technology. (1) The plan may provide that an owner or operator of a proposed major stationary source or major modification may request the reviewing authority to approve a system of innovative control technology.
- (2) The plan may provide that the reviewing authority may, with the consent of the Governor(s) of other affected State(s), determine that the source or modification may employ a system of innovative control technology, if:
- (i) The proposed control system would not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function:
- (ii) The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required under paragraph (j)(2) of this section, by a date specified by the reviewing authority. Such date shall not be later than 4 years from the time of startup or 7 years from permit issuance;
- (iii) The source or modification would meet the requirements equivalent to those in paragraphs (j) and (k) of this section, based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified by the reviewing authority;
- (iv) The source or modification would not before the date specified by the reviewing authority:

- (a) Cause or contribute to any violation of an applicable national ambient air quality standard; or
- (b) Impact any area where an applicable increment is known to be violated;
- (v) All other applicable requirements including those for public participation have been met.
- (vi) The provisions of paragraph (p) of this section (relating to Class I areas) have been satisfied with respect to all periods during the life of the source or modification.
- (3) The plan shall provide that the reviewing authority shall withdraw any approval to employ a system of innovative control technology made under this section, if:
- (i) The proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or
- (ii) The proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare, or safety; or
- (iii) The reviewing authority decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.
- (4) The plan may provide that if a source or modification fails to meet the required level of continuous emissions reduction within the specified time period, or if the approval is withdrawn in accordance with paragraph (s)(3) of this section, the reviewing authority may allow the source or modification up to an additional 3 years to meet the requirement for the application of best available control technology through use of a demonstrated system of control.
  - (t)-(v) [Reserved]
- (w) Actuals PALs. The plan shall provide for PALs according to the provisions in paragraphs (w)(1) through (15) of this section.
- (1) Applicability. (i) The reviewing authority may approve the use of an actuals PAL for any existing major stationary source if the PAL meets the requirements in paragraphs (w)(1) through (15) of this section. The term "PAL" shall mean "actuals PAL" throughout paragraph (w) of this section

- (ii) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs (w)(1) through (15) of this section, and complies with the PAL permit:
- (a) Is not a major modification for the PAL pollutant;
- (b) Does not have to be approved through the plan's major NSR program; and
- (c) Is not subject to the provisions in paragraph (r)(2) of this section (restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of the major NSR program).
- (iii) Except as provided under paragraph (w)(1)(ii)(c) of this section, a major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.
- (2) Definitions. The plan shall use the definitions in paragraphs (w)(2)(i) through (xi) of this section for the purpose of developing and implementing regulations that authorize the use of actuals PALs consistent with paragraphs (w)(1) through (15) of this section. When a term is not defined in these paragraphs, it shall have the meaning given in paragraph (b) of this section or in the Act.
- (i) Actuals PAL for a major stationary source means a PAL based on the baseline actual emissions (as defined in paragraph (b)(47) of this section) of all emissions units (as defined in paragraph (b)(7) of this section) at the source, that emit or have the potential to emit the PAL pollutant.
- (ii) Allowable emissions means "allowable emissions" as defined in paragraph (b)(16) of this section, except as this definition is modified according to paragraphs (w)(2)(ii)(a) and (b) of this section
- (a) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.

- (b) An emissions unit's potential to emit shall be determined using the definition in paragraph (b)(4) of this section, except that the words "or enforceable as a practical matter" should be added after "federally enforceable."
- (iii) Small emissions unit means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in paragraph (b)(23) of this section or in the Act, whichever is lower.
  - (iv) Major emissions unit means:
- (a) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area; or
- (b) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the Act for nonattainment areas. For example, in accordance with the definition of major stationary source in section 182(c) of the Act, an emissions unit would be a major emissions unit for VOC if the emissions unit is located in a serious ozone nonattainment area and it emits or has the potential to emit 50 or more tons of VOC per year.
- (v) Plantwide applicability limitation (PAL) means an emission limitation expressed in tons per year, for a pollutant at a major stationary source, that is enforceable as a practical matter and established source-wide in accordance with paragraphs (w)(1) through (15) of this section.
- (vi) PAL effective date generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (vii) *PAL effective period* means the period beginning with the PAL effective date and ending 10 years later.
- (viii) PAL major modification means, notwithstanding paragraphs (b)(2) and (b)(3) of this section (the definitions for major modification and net emissions increase), any physical change in or change in the method of operation of the PAL source that causes it to emit

the PAL pollutant at a level equal to or greater than the PAL.

- (ix) PAL permit means the major NSR permit, the minor NSR permit, or the State operating permit under a program that is approved into the plan, or the title V permit issued by the reviewing authority that establishes a PAL for a major stationary source.
- (x) PAL pollutant means the pollutant for which a PAL is established at a major stationary source.
- (xi) Significant emissions unit means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in paragraph (b)(23) of this section or in the Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in paragraph (w)(2)(iv) of this section.
- (3) Permit application requirements. As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information in paragraphs (w)(3)(i) through (iii) of this section to the reviewing authority for approval.
- (i) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations, or work practices apply to each unit.
- (ii) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown, and malfunction.
- (iii) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (w)(13)(i) of this section.
- (4) General requirements for establishing PALs. (i) The plan allows the reviewing authority to establish a PAL at a major stationary source, provided that at a minimum, the requirements

in paragraphs (w)(4)(i)(a) through (g) of this section are met.

- (a) The PAL shall impose an annual emission limitation in tons per year, that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.
- (b) The PAL shall be established in a PAL permit that meets the public participation requirements in paragraph (w)(5) of this section.
- (c) The PAL permit shall contain all the requirements of paragraph (w)(7) of this section.
- (d) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.
- (e) Each PAL shall regulate emissions of only one pollutant.
- (f) Each PAL shall have a PAL effective period of 10 years.
- (g) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs (w)(12) through (14) of this section for each emissions unit under the PAL through the PAL effective period.
- (ii) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under §51.165(a)(3)(ii) of this chapter unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

- (5) Public participation requirements for PALs. PALs for existing major stationary sources shall be established, renewed, or increased, through a procedure that is consistent with §\$51.160 and 51.161 of this chapter. This includes the requirement that the reviewing authority provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The reviewing authority must address all material comments before taking final action on the permit.
- (6) Setting the 10-year actuals PAL level. (i) Except as provided in paragraph (w)(6)(ii) of this section, the plan shall provide that the actuals PAL level for a major stationary source shall be established as the sum of the baseline actual emissions (as defined in paragraph (b)(47) of this section) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph (b)(23) of this section or under the Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24month period must be subtracted from the PAL level. The reviewing authority shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the reviewing authority is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO<sub>X</sub> to a new rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).
- (ii) For newly constructed units (which do not include modifications to existing units) on which actual construction began after the 24-month pe-

- riod, in lieu of adding the baseline actual emissions as specified in paragraph (w)(6)(i) of this section, the emissions must be added to the PAL level in an amount equal to the potential to emit of the units.
- (7) Contents of the PAL permit. The plan shall require that the PAL permit contain, at a minimum, the information in paragraphs (w)(7)(i) through (x) of this section.
- (i) The PAL pollutant and the applicable source-wide emission limitation in tons per year.
- (ii) The PAL permit effective date and the expiration date of the PAL (PAL effective period).
- (iii) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL in accordance with paragraph (w)(10) of this section before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the reviewing authority.
- (iv) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns and malfunctions.
- (v) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of paragraph (w)(9) of this section.
- (vi) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (w)(3)(i) of this section.
- (vii) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under paragraph (w)(13) of this section.
- (viii) A requirement to retain the records required under paragraph (w)(13) of this section on site. Such records may be retained in an electronic format.
- (ix) A requirement to submit the reports required under paragraph (w)(14) of this section by the required deadlines.

- (x) Any other requirements that the reviewing authority deems necessary to implement and enforce the PAL.
- (8) PAL effective period and reopening of the PAL permit. The plan shall require the information in paragraphs (w)(8)(i) and (ii) of this section.
- (i) *PAL effective period*. The reviewing authority shall specify a PAL effective period of 10 years.
- (ii) Reopening of the PAL permit. (a) During the PAL effective period, the plan shall require the reviewing authority to reopen the PAL permit to:
- (1) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL;
- (2) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under §51.165(a)(3)(ii) of this chapter; and
- (3) Revise the PAL to reflect an increase in the PAL as provided under paragraph (w)(11) of this section.
- (b) The plan shall provide the reviewing authority discretion to reopen the PAL permit for the following:
- (1) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) 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 that the State may impose on the major stationary source under the plan; and
- (3) Reduce the PAL if the reviewing authority determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an AQRV 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.
- (c) Except for the permit reopening in paragraph (w)(8)(ii)(a)(1) of this section for the correction of typographical/calculation errors that do not increase the PAL level, all reopenings shall be carried out in accordance with the public participation requirements of paragraph (w)(5) of this section.
- (9) Expiration of a PAL. Any PAL that is not renewed in accordance with the procedures in paragraph (w)(10) of this

- section shall expire at the end of the PAL effective period, and the requirements in paragraphs (w)(9)(i) through (v) of this section shall apply.
- (i) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in paragraphs (w)(9)(i)(a) and (b) of this section.
- (a) Within the time frame specified PAL renewals in paragraph (w)(10)(ii) of this section, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the reviewing authority) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under paragraph (w)(10)(v) of this section, such distribution shall be made as if the PAL had been adjusted.
- (b) The reviewing authority shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the reviewing authority determines is appropriate.
- (ii) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The reviewing authority may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS or CPMS to demonstrate compliance with the allowable emission limitation.
- (iii) Until the reviewing authority issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under paragraph (w)(9)(i)(b) of this section, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.
- (iv) Any physical change or change in the method of operation at the major

stationary source will be subject to major NSR requirements if such change meets the definition of major modification in paragraph (b)(2) of this section.

- (v) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to paragraph (r)(2) of this section, but were eliminated by the PAL in accordance with the provisions in paragraph (w)(1)(ii)(c) of this section.
- (10) Renewal of a PAL. (i) The reviewing authority shall follow the procedures specified in paragraph (w)(5) of this section in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the reviewing authority.
- (ii) Application deadline. The plan shall require that a major stationary source owner or operator shall submit a timely application to the reviewing authority to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.
- (iii) Application requirements. The application to renew a PAL permit shall contain the information required in paragraphs (w)(10)(iii) (a) through (d) of this section.
- (a) The information required in paragraphs (w)(3)(i) through (iii) of this section.
  - (b) A proposed PAL level.

- (c) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).
- (d) Any other information the owner or operator wishes the reviewing authority to consider in determining the appropriate level for renewing the PAI.
- (iv) PAL adjustment. In determining whether and how to adjust the PAL, the reviewing authority shall consider the options outlined in paragraphs (w)(10)(iv) (a) and (b) of this section. However, in no case may any such adjustment fail to comply with paragraph (w)(10)(iv)(c) of this section.
- (a) If the emissions level calculated in accordance with paragraph (w)(6) of this section is equal to or greater than 80 percent of the PAL level, the reviewing authority may renew the PAL at the same level without considering the factors set forth in paragraph (w)(10)(iv)(b) of this section; or
- (b) The reviewing authority may set the PAL at a level that it determines to be more representative of the source's baseline actual emissions, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the reviewing authority in its written rationale.
- (c) Notwithstanding paragraphs (w)(10)(iv) (a) and (b) of this section:
- (1) If the potential to emit of the major stationary source is less than the PAL, the reviewing authority shall adjust the PAL to a level no greater than the potential to emit of the source; and
- (2) The reviewing authority shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of paragraph (w)(11) of this section (increasing a PAL).
- (v) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the reviewing authority has not already adjusted for

such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.

- (11) Increasing a PAL during the PAL effective period. (i) The plan shall require that the reviewing authority may increase a PAL emission limitation only if the major stationary source complies with the provisions in paragraphs (w)(11)(i) (a) through (d) of this section.
- (a) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.
- (b) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s), exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.
- (c) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in paragraph (w)(11)(i)(a) of this section, regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the major NSR process (for example, BACT), even though they have also be-

come subject to the PAL or continue to be subject to the PAL.

- (d) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (ii) The reviewing authority shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with paragraph (w)(11)(i)(b) of this section), plus the sum of the baseline actual emissions of the small emissions units.
- (iii) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of paragraph (w)(5) of this section.
- (12)Monitoring requirements PALs—(i) General requirements. (a) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL
- (b) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in paragraphs (w)(12)(ii) (a) through (d) of this section and must be approved by the reviewing authority.
- (c) Notwithstanding paragraph (w)(12)(i)(b) of this section, you may also employ an alternative monitoring approach that meets paragraph (w)(12)(i)(a) of this section if approved by the reviewing authority.
- (d) Failure to use a monitoring system that meets the requirements of this section renders the PAL invalid.

- (ii) Minimum performance requirements for approved monitoring approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in paragraphs (w)(12)(iii) through (ix) of this section:
- (a) Mass balance calculations for activities using coatings or solvents;
- (b) CEMS:
- (c) CPMS or PEMS; and
- (d) Emission factors.
- (iii) Mass balance calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:
- (a) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;
- (b) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
- (c) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the reviewing authority determines there is sitespecific data or a site-specific monitoring program to support another content within the range.
- (iv) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (a) CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and
- (b) CEMS must sample, analyze, and record data at least every 15 minutes while the emissions unit is operating.
- (v) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (a) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the

- range of operation of the emissions unit; and
- (b) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the reviewing authority, while the emissions unit is operating.
- (vi) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
- (a) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
- (b) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and
- (c) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the reviewing authority determines that testing is not required.
- (vii) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.
- (viii) Notwithstanding the requirements in paragraphs (w)(12)(iii) through (vii) of this section, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the reviewing authority shall, at the time of permit issuance:
- (a) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
- (b) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the

PAL pollutant emissions is a violation of the PAL.

- (ix) Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the reviewing authority. Such testing must occur at least once every 5 years after issuance of the PAL.
- (13) Recordkeeping requirements. (i) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of paragraph (w) of this section and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.
- (ii) The PAL permit shall require an owner or operator to retain a copy of the following records, for the duration of the PAL effective period plus 5 years:
- (a) A copy of the PAL permit application and any applications for revisions to the PAL; and
- (b) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.
- (14) Reporting and notification requirements. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the reviewing authority in accordance with the applicable title V operating permit program. The reports shall meet the requirements in paragraphs (w)(14)(i) through (iii) of this section.
- (i) Semi-annual report. The semi-annual report shall be submitted to the reviewing authority within 30 days of the end of each reporting period. This report shall contain the information required in paragraphs (w)(14)(i)(a) through (g) of this section.
- (a) The identification of owner and operator and the permit number.
- (b) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph (w)(13)(i) of this section.
- (c) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calcu-

- lating the monthly and annual PAL pollutant emissions.
- (d) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.
- (e) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
- (f) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by paragraph (w)(12)(vii) of this section.
- (g) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- (ii) Deviation report. The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of this chapter. The reports shall contain the following information:
- (a) The identification of owner and 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 the applicable title V operating permit program) certifying the truth, accuracy, and

completeness of the information provided in the report.

- (iii) Re-validation results. The owner or operator shall submit to the reviewing authority the results of any re-validation test or method within three months after completion of such test or method.
- (15) Transition requirements. (i) No reviewing authority may issue a PAL that does not comply with the requirements in paragraphs (w)(1) through (15) of this section after the Administrator has approved regulations incorporating these requirements into a plan.
- (ii) The reviewing authority may supersede any PAL which was established prior to the date of approval of the plan by the Administrator with a PAL that complies with the requirements of paragraphs (w)(1) through (15) of this section.
- (x) If any provision of this section, or the application of such provision to any person or circumstance, is held invalid, the remainder of this section, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.
- (y) Equipment replacement provision. Without regard to other considerations, routine maintenance, repair and replacement includes, but is not limited to, the replacement of any component of a process unit with an identical or functionally equivalent component(s), and maintenance and repair activities that are part of the replacement activity, provided that all of the requirements in paragraphs (y)(1) through (3) of this section are met.
- (1) Capital Cost threshold for Equipment Replacement. (i) For an electric utility steam generating unit, as defined in §51.166(b)(30), the fixed capital cost of the replacement component(s) plus the cost of any associated maintenance and repair activities that are part of the replacement shall not exceed 20 percent of the replacement value of the process unit, at the time the equipment is replaced. For a process unit that is not an electric utility steam generating unit the fixed capital cost of the replacement component(s) plus the cost of any associated maintenance and repair activities that are part of the replacement shall not exceed 20 percent

of the replacement value of the process unit, at the time the equipment is replaced.

- (ii) In determining the replacement value of the process unit; and, except as otherwise allowed under paragraph (y)(1)(iii) of this section, the owner or operator shall determine the replacement value of the process unit on an estimate of the fixed capital cost of constructing a new process unit, or on the current appraised value of the process unit.
- (iii) As an alternative to paragraph (v)(1)(ii) of this section for determining the replacement value of a process unit, an owner or operator may choose to use insurance value (where the insurance value covers only complete replacement), investment value adjusted for inflation, or another accounting procedure if such procedure is based on Generally Accepted Accounting Principles, provided that the owner or operator sends a notice to the reviewing authority. The first time that an owner or operator submits such a notice for a particular process unit, the notice may be submitted at any time, but any subsequent notice for that process unit may be submitted only at the beginning of the process unit's fiscal year. Unless the owner or operator submits a notice to the reviewing authority, then paragraph (y)(1)(ii) of this section will be used to establish the replacement value of the process unit. Once the owner or operator submits a notice to use an alternative accounting procedure, the owner or operator must continue to use that procedure for the entire fiscal year for that process unit. In subsequent fiscal years, the owner or operator must continue to use this selected procedure unless and until the owner or operator sends another notice to the reviewing authority selecting another procedure consistent with this paragraph or paragraph (y)(1)(ii) of this section at the beginning of such fiscal
- (2) Basic design parameters. The replacement does not change the basic design parameter(s) of the process unit to which the activity pertains.
- (i) Except as provided in paragraph (y)(2)(iii) of this section, for a process

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unit at a steam electric generating facility, the owner or operator may select as its basic design parameters either maximum hourly heat input and maximum hourly fuel consumption rate or maximum hourly electric output rate and maximum steam flow rate. When establishing fuel consumption specifications in terms of weight or volume, the minimum fuel quality based on British Thermal Units content shall be used for determining the basic design parameter(s) for a coalfired electric utility steam generating unit.

(ii) Except as provided in paragraph (y)(2)(iii) of this section, the basic design parameter(s) for any process unit that is not at a steam electric generating facility are maximum rate of fuel or heat input, maximum rate of product output. Combustion process units will typically use maximum rate of fuel input. For sources having multiple end products and raw materials, the owner or operator should consider the primary product or primary raw material when selecting a basic design parameter.

(iii) If the owner or operator believes the basic design parameter(s) in paragraphs (y)(2)(i) and (ii) of this section is not appropriate for a specific industry or type of process unit, the owner or operator may propose to the reviewing authority an alternative basic design parameter(s) for the source's process unit(s). If the reviewing authority approves of the use of an alternative basic design parameter(s), the reviewing authority shall issue a permit that is legally enforceable that records such basic design parameter(s) and requires the owner or operator to comply with such parameter(s).

(iv) The owner or operator shall use credible information, such as results of historic maximum capability tests, design information from the manufacturer, or engineering calculations, in establishing the magnitude of the basic design parameter(s) specified in paragraphs (y)(2)(i) and (ii) of this section.

(v) If design information is not available for a process unit, then the owner or operator shall determine the process unit's basic design parameter(s) using the maximum value achieved by the

process unit in the five-year period immediately preceding the planned activity.

- (vi) Efficiency of a process unit is not a basic design parameter.
- (3) The replacement activity shall not cause the process unit to exceed any emission limitation, or operational limitation that has the effect of constraining emissions, that applies to the process unit and that is legally enforceable.

NOTE TO PARAGRAPH (y): By a court order on December 24, 2003, this paragraph (y) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

(Secs. 101(b)(1), 110, 160–169, 171–178, and 301(a), Clean Air Act, as amended (42 U.S.C. 7401(b)(1), 7410, 7470–7479, 7501–7508, and 7601(a)); sec. 129(a), Clean Air Act Amendments of 1977 (Pub. L. 95–95, 91 Stat. 685 (Aug. 7, 1977)))

[43 FR 26382, June 19, 1978]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §51.166, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

EFFECTIVE DATE NOTE: At 76 FR 17553, Mar. 30, 2011,  $\S51.166$  paragraphs (b)(2)(v) and (b)(3)(iii)(d) are stayed indefinitely.

# Subpart J—Ambient Air Quality Surveillance

AUTHORITY: Secs. 110, 301(a), 313, 319, Clean Air Act (42 U.S.C. 7410, 7601(a), 7613, 7619).

# § 51.190 Ambient air quality monitoring requirements.

The requirements for monitoring ambient air quality for purposes of the plan are located in subpart C of part 58 of this chapter.

[44 FR 27569, May 10, 1979]

# Subpart K—Source Survelliance

SOURCE: 51 FR 40673, Nov. 7, 1986, unless otherwise noted.

# §51.210 General.

Each plan must provide for monitoring the status of compliance with



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the plan during the 5-year period following its submission. The description must include projections of the extent to which resources will be acquired at 1-, 3-, and 5-year intervals.

[51 FR 40674, Nov. 7, 1986]

# §51.281 Copies of rules and regulations.

Emission limitations and other measures necessary for attainment and maintenance of any national standard, including any measures necessary to implement the requirements of subpart L must be adopted as rules and regulations enforceable by the State agency. Copies of all such rules and regulations must be submitted with the plan. Submittal of a plan setting forth proposed rules and regulations will not satisfy the requirements of this section nor will it be considered a timely submittal.

[51 FR 40674, Nov. 7, 1986]

#### §51.285 Public notification.

By March 1, 1980, the State shall submit a plan revision that contains provisions for:

- (a) Notifying the public on a regular basis of instances or areas in which any primary standard was exceeded during any portion of the preceding calendar year.
- (b) Advising the public of the health hazards associated with such an exceedance of a primary standard, and
  - (c) Increasing public awareness of:
- (1) Measures which can be taken to prevent a primary standard from being exceeded, and
- (2) Ways in which the public can participate in regulatory and other efforts to improve air quality.

[44 FR 27569, May 10, 1979]

#### §51.286 Electronic reporting.

States that wish to receive electronic documents must revise the State Implementation Plan to satisfy the requirements of 40 CFR Part 3—(Electronic reporting).

[70 FR 59887, Oct. 13, 2005]

### Subpart P—Protection of Visibility

AUTHORITY: Secs. 110, 114, 121, 160–169, 169A, and 301 of the Clean Air Act, (42 U.S.C. 7410, 7414, 7421, 7470–7479, and 7601).

SOURCE: 45 FR 80089, Dec. 2, 1980, unless otherwise noted.

#### §51.300 Purpose and applicability.

(a) Purpose. The primary purposes of this subpart are to require States to develop programs to assure reasonable progress toward meeting the national goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution; and to establish necessary additional procedures for new source permit applicants, States and Federal Land Managers to use in conducting the visibility impact analysis required for new sources under §51.166. This subpart sets forth requirements addressing visibility impairment in its two principal forms: "reasonably attributable" impairment (i.e., impairment attributable to a single source/ small group of sources) and regional haze (i.e., widespread haze from a multitude of sources which impairs visibility in every direction over a large area).

(b) Applicability The provisions of this subpart are applicable to all States as defined in section 302(d) of the Clean Air Act (CAA) except Guam, Puerto Rico, American Samoa, and the Northern Mariana Islands.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35763, July 1, 1999; 82 FR 3122, Jan. 10, 2017]

# $\S 51.301$ Definitions.

For purposes of this subpart:

Adverse impact on visibility means, for purposes of section 307, visibility impairment which interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of the Federal Class I area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of visibility impairments, and how these factors correlate with (1) times of visitor use of the Federal Class I area, and (2) the

frequency and timing of natural conditions that reduce visibility. This term does not include effects on integral vistas

Agency means the U.S. Environmental Protection Agency.

BART-eligible source means an existing stationary facility as defined in this section

Baseline visibility condition means the average of the five annual averages of the individual values of daily visibility for the period 2000–2004 unique to each Class I area for either the most impaired days or the clearest days.

Best Available Retrofit Technology (BART) means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

Building, structure, or facility means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities must be considered as part of the same industrial grouping if they belong to the same Major Group (i.e., which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972 as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0 respectively).

Clearest days means the twenty percent of monitored days in a calendar year with the lowest values of the deciview index.

Current visibility condition means the average of the five annual averages of individual values of daily visibility for

the most recent period for which data are available unique to each Class I area for either the most impaired days or the clearest days.

*Deciview* is the unit of measurement on the deciview index scale for quantifying in a standard manner human perceptions of visibility.

Deciview index means a value for a day that is derived from calculated or measured light extinction, such that uniform increments of the index correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to very obscured. The deciview index is calculated based on the following equation (for the purposes of calculating deciview using IMPROVE data, the atmospheric light extinction coefficient must be calculated from aerosol measurements and an estimate of Rayleigh scattering):

Deciview index = 10 ln  $(b_{ext}/10 \text{ Mm}^{-1})$ .  $b_{ext}$  = the atmospheric light extinction coefficient, expressed in inverse megameters (Mm-1).

End of the applicable implementation period means December 31 of the year in which the next periodic comprehensive implementation plan revision is due under §51.308(f).

Existing stationary facility means any of the following stationary sources of air pollutants, including any reconstructed source, which was not in operation prior to August 7, 1962, and was in existence on August 7, 1977, and has the potential to emit 250 tons per year or more of any air pollutant. In determining potential to emit, fugitive emissions, to the extent quantifiable, must be counted.

Fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input,

Coal cleaning plants (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,

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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 facilities,

Chemical process plants,

Fossil-fuel boilers of more than 250 million British thermal units per hour heat input,

Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels,

Taconite ore processing facilities, Glass fiber processing plants, and Charcoal production facilities.

Federal Class I area means any Federal land that is classified or reclassified Class I.

Federal Land Manager means the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee) or, with respect to Roosevelt-Campobello International Park, the Chairman of the Roosevelt-Campobello International Park Commission.

Federally enforceable means all limitations and conditions which are enforceable by the Administrator under the Clean Air Act including those requirements developed pursuant to parts 60 and 61 of this title, requirements within any applicable State Implementation Plan, and any permit requirements established pursuant to §52.21 of this chapter or under regulations approved pursuant to part 51, 52, or 60 of this title.

Fixed capital cost means the capital needed to provide all of the depreciable components.

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

Geographic enhancement for the purpose of §51.308 means a method, procedure, or process to allow a broad regional strategy, such as an emissions trading program designed to achieve

greater reasonable progress than BART for regional haze, to accommodate BART for reasonably attributable impairment.

Implementation plan means, for the purposes of this part, any State Implementation Plan, Federal Implementation Plan, or Tribal Implementation Plan.

Indian tribe or tribe means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village, which is federally recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

In existence means that the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (1) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (2) entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.

In operation means engaged in activity related to the primary design function of the source.

Installation means an identifiable piece of process equipment.

Integral vista means a view perceived from within the mandatory Class I Federal area of a specific landmark or panorama located outside the boundary of the mandatory Class I Federal area.

Least impaired days means the twenty percent of monitored days in a calendar year with the lowest amounts of visibility impairment.

Major stationary source and major modification mean major stationary source and major modification, respectively, as defined in §51.166.

Mandatory Class I Federal Area or Mandatory Federal Class I Area means any area identified in part 81, subpart D of this title.

Most impaired days means the twenty percent of monitored days in a calendar year with the highest amounts of anthropogenic visibility impairment.

Natural conditions reflect naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration, and may refer to the conditions on a single day or a set of days. These phenomena include, but are not limited to, humidity, fire events, dust storms, volcanic activity, and biogenic emissions from soils and trees. These phenomena may be near or far from a Class I area and may be outside the United States.

Natural visibility means visibility (contrast, coloration, and texture) on a day or days that would have existed under natural conditions. Natural visibility varies with time and location, is estimated or inferred rather than directly measured, and may have long-term trends due to long-term trends in natural conditions.

Natural visibility condition means the average of individual values of daily natural visibility unique to each Class I area for either the most impaired days or the clearest days.

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

Prescribed fire means any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific land or resource management objectives.

Reasonably attributable means attributable by visual observation or any other appropriate technique.

Reasonably attributable visibility impairment means visibility impairment that is caused by the emission of air pollutants from one, or a small number of sources.

Reconstruction will be presumed to have taken place where the fixed cap-

ital cost of the new component exceeds 50 percent of the fixed capital cost of a comparable entirely new source. Any final decision as to whether reconstruction has occurred must be made in accordance with the provisions of §60.15 (f) (1) through (3) of this title.

Regional haze means visibility impairment that is caused by the emission of air pollutants from numerous anthropogenic sources located over a wide geographic area. Such sources include, but are not limited to, major and minor stationary sources, mobile sources, and area sources.

Secondary emissions means emissions which occur as a result of the construction or operation of an existing stationary facility but do not come from the existing stationary facility. Secondary emissions may include, but are not limited to, emissions from ships or trains coming to or from the existing stationary facility.

Significant impairment means, for purposes of §51.303, visibility impairment which, in the judgment of the Administrator, interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of the mandatory Class I Federal area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of the visibility impairment, and how these factors correlate with (1) times of visitor use of the mandatory Class I Federal area, and (2) the frequency and timing of natural conditions that reduce visibility.

State means "State" as defined in section 302(d) of the CAA.

Stationary Source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Visibility means the degree of perceived clarity when viewing objects at a distance. Visibility includes perceived changes in contrast, coloration, and texture elements in a scene.

Visibility impairment or anthropogenic visibility impairment means any humanly perceptible difference due to air pollution from anthropogenic sources between actual visibility and natural visibility on one or more days. Because

natural visibility can only be estimated or inferred, visibility impairment also is estimated or inferred rather than directly measured.

Visibility in any mandatory Class I Federal area includes any integral vista associated with that area.

Wildfire means any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions, or a prescribed fire that has developed into a wildfire. A wildfire that predominantly occurs on wildland is a natural event.

Wildland means an area in which human activity and development is essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35763, 35774, July 1, 1999; 82 FR 3122, Jan. 10, 2017]

# § 51.302 Reasonably attributable visibility impairment.

- (a) The affected Federal Land Manager may certify, at any time, that there exists reasonably attributable visibility impairment in any mandatory Class I Federal area and identify which single source or small number of sources is responsible for such impairment. The affected Federal Land Manager will provide the certification to the State in which the impairment occurs and the State(s) in which the source(s) is located. The affected Federal Land Manager shall provide the State(s) in which the source(s) is located an opportunity to consult on the basis of the planned certification, in person and at least 60 days prior to providing the certification to the State(s).
- (b) The State(s) in which the source(s) is located shall revise its regional haze implementation plan, in accordance with the schedule set forth in paragraph (d) of this section, to include for each source or small number of sources that the Federal Land Manager has identified in whole or in part for reasonably attributable visibility impairment as part of a certification under paragraph (a) of this section:
- (1) A determination, based on the factors set forth in §51.308(f)(2), of the control measures, if any, that are nec-

essary with respect to the source or sources in order for the plan to make reasonable progress toward natural visibility conditions in the affected Class I Federal area;

- (2) Emission limitations that reflect the degree of emission reduction achievable by such control measures and schedules for compliance as expeditiously as practicable; and
- (3) Monitoring, recordkeeping, and reporting requirements sufficient to ensure the enforceability of the emission limitations.
- (c) If a source that the Federal Land Manager has identified as responsible in whole or in part for reasonably attributable visibility impairment as part of a certification under paragraph (a) of this section is a BART-eligible source, and if there is not in effect as of the date of the certification a fully or conditionally approved implementation plan addressing the BART requirement for that source (which existing plan may incorporate either sourcespecific emission limitations reflecting the emission control performance of BART, an alternative program to address the BART requirement under §51.308(e)(2) through (4), or for sources of SO<sub>2</sub>, a program approved under paragraph §51.309(d)(4)), then the State shall revise its regional haze implementation plan to meet the requirements of §51.308(e) with respect to that source, taking into account current conditions related to the factors listed in §51.308(e)(1)(ii)(A). This requirement is in addition to the requirement of paragraph (b) of this section.
- (d) For any existing reasonably attributable visibility impairment the Federal Land Manager certifies to the State(s) under paragraph (a) of this section, the State(s) shall submit a revision to its regional haze implementation plan that includes the elements described in paragraphs (b) and (c) of this section no later than 3 years after the date of the certification. The State(s) is not required at that time to also revise its reasonable progress goals to reflect any additional emission reductions required from the source or sources. In no case shall such a revision in response to a reasonably

attributable visibility impairment certification be due before July 31, 2021.

[82 FR 3123, Jan. 10, 2017]

#### §51.303 Exemptions from control.

- (a)(1) Any existing stationary facility subject to the requirement under §51.302(c) or §51.308(e) to install, operate, and maintain BART may apply to the Administrator for an exemption from that requirement.
- (2) An application under this section must include all available documentation relevant to the impact of the source's emissions on visibility in any mandatory Class I Federal area and a demonstration by the existing stationary facility that it does not or will not, by itself or in combination with other sources, emit any air pollutant which may be reasonably anticipated to cause or contribute to a significant impairment of visibility in any mandatory Class I Federal area.
- (b) Any fossil-fuel fired power plant with a total generating capacity of 750 megawatts or more may receive an exemption from BART only if the owner or operator of such power plant demonstrates to the satisfaction of the Administrator that such power plant is located at such a distance from all mandatory Class I Federal areas that such power plant does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to significant impairment of visibility in any such mandatory Class I Federal area.
- (c) Application under this §51.303 must be accompanied by a written concurrence from the State with regulatory authority over the source.
- (d) The existing stationary facility must give prior written notice to all affected Federal Land Managers of any application for exemption under this §51.303.
- (e) The Federal Land Manager may provide an initial recommendation or comment on the disposition of such application. Such recommendation, where provided, must be part of the exemption application. This recommendation is not to be construed as the concurrence required under paragraph (h) of this section.

- (f) The Administrator, within 90 days of receipt of an application for exemption from control, will provide notice of receipt of an exemption application and notice of opportunity for public hearing on the application.
- (g) After notice and opportunity for public hearing, the Administrator may grant or deny the exemption. For purposes of judicial review, final EPA action on an application for an exemption under this §51.303 will not occur until EPA approves or disapproves the State Implementation Plan revision.
- (h) An exemption granted by the Administrator under this §51.303 will be effective only upon concurrence by all affected Federal Land Managers with the Administrator's determination.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35774, July 1, 1999; 82 FR 3123, Jan. 10, 2017]

# §51.304 Identification of integral vistas.

- (a) Federal Land Managers were required to identify any integral vistas on or before December 31, 1985, according to criteria the Federal Land Managers developed. These criteria must have included, but were not limited to, whether the integral vista was important to the visitor's visual experience of the mandatory Class I Federal area.
- (b) The following integral vistas were identified by Federal Land Managers: At Roosevelt Campobello International Park, from the observation point of Roosevelt cottage and beach area, the viewing angle from 244 to 256 degrees; and at Roosevelt Campobello International Park, from the observation point of Friar's Head, the viewing angle from 154 to 194 degrees.
- (c) The State must list in its implementation plan any integral vista listed in paragraph (b) of this section.

[82 FR 3123, Jan. 10, 2017]

# § 51.305 Monitoring for reasonably attributable visibility impairment.

For the purposes of addressing reasonably attributable visibility impairment, if the Administrator, Regional Administrator, or the affected Federal Land Manager has advised a State containing a mandatory Class I Federal area of a need for monitoring to assess

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reasonably attributable visibility impairment at the mandatory Class I Federal area in addition to the monitoring currently being conducted to meet the requirements of §51.308(d)(4), the State must include in the next implementation plan revision to meet the requirement of §51.308(f) an appropriate strategy for evaluating reasonably attributable visibility impairment in the mandatory Class I Federal area by visual observation or other appropriate monitoring techniques. Such strategy must take into account current and anticipated visibility monitoring research, the availability of appropriate monitoring techniques, and such guidance as is provided by the Agency.

[82 FR 3124, Jan. 10, 2017]

#### §51.306 [Reserved]

#### §51.307 New source review.

- (a) For purposes of new source review of any new major stationary source or major modification that would be constructed in an area that is designated attainment or unclassified under section 107(d) of the CAA, the State plan must, in any review under §51.166 with respect to visibility protection and analyses, provide for:
- (1) Written notification of all affected Federal Land Managers of any proposed new major stationary source or major modification that may affect visibility in any Federal Class I area. Such notification must be made in writing and include a copy of all information relevant to the permit application within 30 days of receipt of and at least 60 days prior to public hearing by the State on the application for permit to construct. Such notification must include an analysis of the anticipated impacts on visibility in any Federal Class I area.
- (2) Where the State requires or receives advance notification (e.g. early consultation with the source prior to submission of the application or notification of intent to monitor under §51.166) of a permit application of a source that may affect visibility the State must notify all affected Federal Land Managers within 30 days of such advance notification, and
- (3) Consideration of any analysis performed by the Federal Land Manager,

provided within 30 days of the notification and analysis required by paragraph (a)(1) of this section, that such proposed new major stationary source or major modification may have an adverse impact on visibility in any Federal Class I area. Where the State finds that such an analysis does not demonstrate to the satisfaction of the State that an adverse impact will result in the Federal Class I area, the State must, in the notice of public hearing, either explain its decision or give notice as to where the explanation can be obtained.

- (b) The plan shall also provide for the review of any new major stationary source or major modification:
- (1) That may have an impact on any integral vista of a mandatory Class I Federal area listed in §51.304(b), or
- (2) That proposes to locate in an area classified as nonattainment under section 107(d)(1) of the Clean Air Act that may have an impact on visibility in any mandatory Class I Federal area.
- (c) Review of any major stationary source or major modification under paragraph (b) of this section, shall be conducted in accordance with paragraph (a) of this section, and §51.166(o), (p)(1) through (2), and (q). In conducting such reviews the State must ensure that the source's emissions will be consistent with making reasonable progress toward the national visibility goal referred to in §51.300(a). The State may take into account the costs of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the useful life of the source.
- (d) The State may require monitoring of visibility in any Federal Class I area near the proposed new stationary source or major modification for such purposes and by such means as the State deems necessary and appropriate.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35765, 35774, July 1, 1999; 82 FR 3124, Jan. 10, 2017]

# §51.308 Regional haze program requirements.

(a) What is the purpose of this section? This section establishes requirements

for implementation plans, plan revisions, and periodic progress reviews to address regional haze.

(b) When are the first implementation plans due under the regional haze program? Except as provided in §51.309(c), each State identified in §51.300(b) must submit, for the entire State, an implementation plan for regional haze meeting the requirements of paragraphs (d) and (e) of this section no later than December 17, 2007.

### (c) [Reserved]

- (d) What are the core requirements for the implementation plan for regional haze? The State must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State. To meet the core requirements for regional haze for these areas, the State must submit an implementation plan containing the following plan elements and supporting documentation for all required analyses:
- (1) Reasonable progress goals. For each mandatory Class I Federal area located within the State, the State must establish goals (expressed in deciviews) that provide for reasonable progress towards achieving natural visibility conditions. The reasonable progress goals must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period.
- (i) In establishing a reasonable progress goal for any mandatory Class I Federal area within the State, the State must:
- (A) Consider the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected sources, and include a demonstration showing how these factors were taken into consideration in selecting the goal.
- (B) Analyze and determine the rate of progress needed to attain natural visibility conditions by the year 2064. To calculate this rate of progress, the State must compare baseline visibility conditions to natural visibility condi-

tions in the mandatory Federal Class I area and determine the uniform rate of visibility improvement (measured in deciviews) that would need to be maintained during each implementation period in order to attain natural visibility conditions by 2064. In establishing the reasonable progress goal, the State must consider the uniform rate of improvement in visibility and the emission reduction measures needed to achieve it for the period covered by the implementation plan.

(ii) For the period of the implementation plan, if the State establishes a reasonable progress goal that provides for a slower rate of improvement in visibility than the rate that would be needed to attain natural conditions by 2064, the State must demonstrate, based on the factors in paragraph (d)(1)(i)(A) of this section, that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable. The State must provide to the public for review as part of its implementation plan an assessment of the number of years it would take to attain natural conditions if visibility improvement continues at the rate of progress selected by the State as reasonable.

(iii) In determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions, the Administrator will evaluate the demonstrations developed by the State pursuant to paragraphs (d)(1)(i) and (d)(1)(ii) of this section.

(iv) In developing each reasonable progress goal, the State must consult with those States which may reasonably be anticipated to cause or contribute to visibility impairment in the mandatory Class I Federal area. In any situation in which the State cannot agree with another such State or group of States that a goal provides for reasonable progress, the State must describe in its submittal the actions taken to resolve the disagreement. In reviewing the State's implementation plan submittal, the Administrator will take this information into account in determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions.

- (v) The reasonable progress goals established by the State are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan to achieve the progress goal adopted by the State.
- (vi) The State may not adopt a reasonable progress goal that represents less visibility improvement than is expected to result from implementation of other requirements of the CAA during the applicable planning period.
- (2) Calculations of baseline and natural visibility conditions. For each mandatory Class I Federal area located within the State, the State must determine the following visibility conditions (expressed in deciviews):
- (i) Baseline visibility conditions for the most impaired and least impaired days. The period for establishing baseline visibility conditions is 2000 to 2004. Baseline visibility conditions must be calculated, using available monitoring data, by establishing the average degree of visibility impairment for the most and least impaired days for each calendar year from 2000 to 2004. The baseline visibility conditions are the average of these annual values. For mandatory Class I Federal areas without onsite monitoring data for 2000-2004, the State must establish baseline values using the most representative available monitoring data for 2000-2004, in consultation with the Administrator or his or her designee;
- (ii) For an implementation plan that is submitted by 2003, the period for establishing baseline visibility conditions for the period of the first long-term strategy is the most recent 5-year period for which visibility monitoring data are available for the mandatory Class I Federal areas addressed by the plan. For mandatory Class I Federal areas without onsite monitoring data, the State must establish baseline values using the most representative available monitoring data, in consultation with the Administrator or his or her designee;
- (iii) Natural visibility conditions for the most impaired and least impaired days. Natural visibility conditions must be calculated by estimating the

- degree of visibility impairment existing under natural conditions for the most impaired and least impaired days, based on available monitoring information and appropriate data analysis techniques; and
- (iv) For the first implementation plan addressing the requirements of paragraphs (d) and (e) of this section, the number of deciviews by which baseline conditions exceed natural visibility conditions for the most impaired and least impaired days.
- (3) Long-term strategy for regional haze. Each State listed in §51.300(b) must submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State that may be affected by emissions from the State. The long-term strategy must include enforceable emissions limitations. compliance schedules, and other measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas. In establishing its longterm strategy for regional haze, the State must meet the following requirements:
- (i) Where the State has emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another State or States, the State must consult with the other State(s) in order to develop coordinated emission management strategies. The State must consult with any other State having emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area within the State.
- (ii) Where other States cause or contribute to impairment in a mandatory Class I Federal area, the State must demonstrate that it has included in its implementation plan all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for the area. If the State has participated in a regional planning process, the State must ensure it has included all measures needed to achieve its apportionment of emission reduction obligations agreed upon through that process.

- (iii) The State must document the technical basis, including modeling, monitoring and emissions information, on which the State is relying to determine its apportionment of emission reobligations necessary duction achieving reasonable progress in each mandatory Class I Federal area it affects. The State may meet this requirement by relying on technical analyses developed by the regional planning organization and approved by all State participants. The State must identify the baseline emissions inventory on which its strategies are based. The baseline emissions inventory year is presumed to be the most recent year of the consolidate periodic emissions inventory.
- (iv) The State must identify all anthropogenic sources of visibility impairment considered by the State in developing its long-term strategy. The State should consider major and minor stationary sources, mobile sources, and area sources.
- (v) The State must consider, at a minimum, the following factors in developing its long-term strategy:
- (A) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment;
- (B) Measures to mitigate the impacts of construction activities;
- (C) Emissions limitations and schedules for compliance to achieve the reasonable progress goal;
- (D) Source retirement and replacement schedules;
- (E) Smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the State for these purposes;
- (F) Enforceability of emissions limitations and control measures; and
- (G) The anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.
- (4) Monitoring strategy and other implementation plan requirements. The State must submit with the implementation plan a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory

- Class I Federal areas within the State. This monitoring strategy must be coordinated with the monitoring strategy required in §51.305 for reasonably attributable visibility impairment. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environments network. The implementation plan must also provide for the following:
- (i) The establishment of any additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the State are being achieved.
- (ii) Procedures by which monitoring data and other information are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the State.
- (iii) For a State with no mandatory Class I Federal areas, procedures by which monitoring data and other information are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas in other States.
- (iv) The implementation plan must provide for the reporting of all visibility monitoring data to the Administrator at least annually for each mandatory Class I Federal area in the State. To the extent possible, the State should report visibility monitoring data electronically.
- (v) A statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area. The inventory must include emissions for a baseline year, emissions for the most recent year for which data are available, and estimates of future projected emissions. The State must also include a commitment to update the inventory periodically.
- (vi) Other elements, including reporting, recordkeeping, and other measures, necessary to assess and report on visibility.
- (e) Best Available Retrofit Technology (BART) requirements for regional haze visibility impairment. The State must

submit an implementation plan containing emission limitations representing BART and schedules for compliance with BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area, unless the State demonstrates that an emissions trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions

- (1) To address the requirements for BART, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:
- (i) A list of all BART-eligible sources within the State.
- (ii) A determination of BART for each BART-eligible source in the State that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area. All such sources are subject to BART.
- (A) The determination of BART must be based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each BART-eligible source that is subject to BART within the State. In this analysis, the State must take into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such tech-
- (B) The determination of BART for fossil-fuel fired power plants having a total generating capacity greater than 750 megawatts must be made pursuant to the guidelines in appendix Y of this part (Guidelines for BART Determinations Under the Regional Haze Rule).
- (C) Exception. A State is not required to make a determination of BART for  $SO_2$  or for  $NO_X$  if a BART-eligible source has the potential to emit less than 40 tons per year of such pollutant(s), or for  $PM_{10}$  if a BART-eligible

source has the potential to emit less than 15 tons per year of such pollutant.

- (iii) If the State determines in establishing BART that technological or economic limitations on the applicability of measurement methodology to a particular source would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice, or other operational standard, or combination thereof, to require the application of BART. Such standard, to the degree possible, is to set forth the emission reduction to be achieved by implementation of such design, equipment, work practice or operation, and must provide for compliance by means which achieve equivalent results.
- (iv) A requirement that each source subject to BART be required to install and operate BART as expeditiously as practicable, but in no event later than 5 years after approval of the implementation plan revision.
- (v) A requirement that each source subject to BART maintain the control equipment required by this subpart and establish procedures to ensure such equipment is properly operated and maintained.
- (2) A State may opt to implement or require participation in an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART. Such an emissions trading program or other alternative measure must achieve greater reasonable progress than would be achieved through the installation and operation of BART. For all such emission trading programs or other alternative measures, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:
- (i) A demonstration that the emissions trading program or other alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State and covered by the alternative program. This demonstration must be based on the following:

- (A) A list of all BART-eligible sources within the State.
- (B) A list of all BART-eligible sources and all BART source categories covered by the alternative program. The State is not required to include every BART source category or every BART-eligible source within a BART source category in an alternative program, but each BART-eligible source in the State must be subject to the requirements of the alternative program, have a federally enforceable emission limitation determined by the State and approved by EPA as meeting BART in accordance with section 302(c) or paragraph (e)(1) of this section, or otherwise addressed under paragraphs (e)(1) or (e)(4)of this section.
- (C) An analysis of the best system of continuous emission control nology available and associated emission reductions achievable for each source within the State subject to BART and covered by the alternative program. This analysis must be conducted by making a determination of BART for each source subject to BART and covered by the alternative program as provided for in paragraph (e)(1) of this section, unless the emissions trading program or other alternative measure has been designed to meet a requirement other than BART (such as the core requirement to have a longterm strategy to achieve the reasonable progress goals established by States). In this case, the State may determine the best system of continuous emission control technology and associated emission reductions for similar types of sources within a source category based on both source-specific and category-wide information, as appro-
- (D) An analysis of the projected emissions reductions achievable through the trading program or other alternative measure.
- (E) A determination under paragraph (e)(3) of this section or otherwise based on the clear weight of evidence that the trading program or other alternative measure achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources.
  - (ii) [Reserved]

- (iii) A requirement that all necessary emission reductions take place during the period of the first long-term strategy for regional haze. To meet this requirement, the State must provide a detailed description of the emissions trading program or other alternative measure, including schedules for implementation, the emission reductions required by the program, all necessary administrative and technical procedures for implementing the program, rules for accounting and monitoring emissions, and procedures for enforcement.
- (iv) A demonstration that the emission reductions resulting from the emissions trading program or other alternative measure will be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP
- (v) At the State's option, a provision that the emissions trading program or other alternative measure may include a geographic enhancement to the program to address the requirement under §51.302(b) or (c) related to reasonably attributable impairment from the pollutants covered under the emissions trading program or other alternative measure.
- (vi) For plans that include an emissions trading program that establishes a cap on total annual emissions of  $SO_2$  or  $NO_X$  from sources subject to the program, requires the owners and operators of sources to hold allowances or authorizations to emit equal to emissions, and allows the owners and operators of sources and other entities to purchase, sell, and transfer allowances, the following elements are required concerning the emissions covered by the cap:
- (A) Applicability provisions defining the sources subject to the program. The State must demonstrate that the applicability provisions (including the size criteria for including sources in the program) are designed to prevent any significant potential shifting within the State of production and emissions from sources in the program to sources outside the program. In the case of a program covering sources in

multiple States, the States must demonstrate that the applicability provisions in each State cover essentially the same size facilities and, if source categories are specified, cover the same source categories and prevent any significant, potential shifting within such States of production and emissions to sources outside the program.

- (B) Allowance provisions ensuring that the total value of allowances (in tons) issued each year under the program will not exceed the emissions cap (in tons) on total annual emissions from the sources in the program.
- (C) Monitoring provisions providing for consistent and accurate measurements of emissions from sources in the program to ensure that each allowance actually represents the same specified tonnage of emissions and that emissions are measured with similar accuracy at all sources in the program. The monitoring provisions must require that boilers, combustion turbines, and cement kilns in the program allowed to sell or transfer allowances must comply with the requirements of part 75 of this chapter. The monitoring provisions must require that other sources in the program allowed to sell or transfer allowances must provide emissions information with the same precision, reliability, accessibility, and timeliness as information provided under part 75 of this chapter.
- (D) Recordkeeping provisions that ensure the enforceability of the emissions monitoring provisions and other program requirements. The recordkeeping provisions must require that boilers, combustion turbines, and cement kilns in the program allowed to sell or transfer allowances must comply with the recordkeeping provisions of part 75 of this chapter. The recordkeeping provisions must require that other sources in the program allowed to sell or transfer allowances must comply with recordkeeping requirements that, as compared with the recordkeeping provisions under part 75 of this chapter, are of comparable stringency and require recording of comparable types of information and retention of the records for comparable periods of time.
- (E) Reporting provisions requiring timely reporting of monitoring data

- with sufficient frequency to ensure the enforceability of the emissions monitoring provisions and other program requirements and the ability to audit the program. The reporting provisions must require that boilers, combustion turbines, and cement kilns in the program allowed to sell or transfer allowances must comply with the reporting provisions of part 75 of this chapter, except that, if the Administrator is not the tracking system administrator for the program, emissions may be reported to the tracking system administrator, rather than to the Administrator. The reporting provisions must require that other sources in the program allowed to sell or transfer allowances must comply with reporting requirements that, as compared with the reporting provisions under part 75 of this chapter, are of comparable stringency and require reporting of comparable types of information and require comparable timeliness and frequency of reporting.
- (F) Tracking system provisions which provide for a tracking system that is publicly available in a secure, centralized database to track in a consistent manner all allowances and emissions in the program.
- (G) Authorized account representative provisions ensuring that the owners and operators of a source designate one individual who is authorized to represent the owners and operators in all matters pertaining to the trading program.
- (H) Allowance transfer provisions providing procedures that allow timely transfer and recording of allowances, minimize administrative barriers to the operation of the allowance market, and ensure that such procedures apply uniformly to all sources and other potential participants in the allowance market.
- (I) Compliance provisions prohibiting a source from emitting a total tonnage of a pollutant that exceeds the tonnage value of its allowance holdings, including the methods and procedures for determining whether emissions exceed allowance holdings. Such method and procedures shall apply consistently from source to source.
- (J) Penalty provisions providing for mandatory allowance deductions for

excess emissions that apply consistently from source to source. The tonnage value of the allowances deducted shall equal at least three times the tonnage of the excess emissions.

- (K) For a trading program that allows banking of allowances, provisions clarifying any restrictions on the use of these banked allowances.
- (L) Program assessment provisions providing for periodic program evaluation to assess whether the program is accomplishing its goals and whether modifications to the program are needed to enhance performance of the program.
- (3) A State which opts under 40 CFR 51.308(e)(2) to implement an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART may satisfy the final step of the demonstration required by that section as follows: If the distribution of emissions is not substantially different than under BART, and the alternative measure results in greater emission reductions, then the alternative measure may be deemed to achieve greater reasonable progress. If the distribution of emissions is significantly different, the State must conduct dispersion modeling to determine differences in visibility between BART and the trading program for each impacted Class I area, for the worst and best 20 percent of days. The modeling would demonstrate "greater reasonable progress" if both of the following two criteria are met:
- (i) Visibility does not decline in any Class I area, and
- (ii) There is an overall improvement in visibility, determined by comparing the average differences between BART and the alternative over all affected Class I areas.
- (4) A State whose sources are subject to a trading program established under part 97 of this chapter in accordance with a federal implementation plan set forth in §52.38 or §52.39 of this chapter or a trading program established under a SIP revision approved by the Administrator as meeting the requirements of §52.38 or §52.39 of this chapter need not require BART-eligible fossil fuel-fired steam electric plants in the State to install, operate, and maintain BART

for the pollutant covered by such trading program in the State. A State may adopt provisions, consistent with the requirements applicable to the State's sources for such trading program, for a geographic enhancement to the trading program to address any requirement under §51.302(b) or (c) related to reasonably attributable impairment from the pollutant covered by such trading program in that State.

- (5) After a State has met the requirements for BART or implemented an emissions trading program or other alternative measure that achieves more reasonable progress than the installation and operation of BART, BART-eligible sources will be subject to the requirements of paragraphs (d) and (f) of this section, as applicable, in the same manner as other sources.
- (6) Any BART-eligible facility subject to the requirement under paragraph (e) of this section to install, operate, and maintain BART may apply to the Administrator for an exemption from that requirement. An application for an exemption will be subject to the requirements of §51.303(a)(2)-(h).
- (f) Requirements for periodic comprehensive revisions of implementation plans for regional haze. Each State identified in §51.300(b) must revise and submit its regional haze implementation plan revision to EPA by July 31, 2021, July 31, 2028, and every 10 years thereafter. The plan revision due on or before July 31, 2021, must include a commitment by the State to meet the requirements of paragraph (g) of this section. In each plan revision, the State must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State that may be affected by emissions from within the State. To meet the core requirements for regional haze for these areas, the State must submit an implementation plan containing the following plan elements and supporting documentation for all required analyses:
- (1) Calculations of baseline, current, and natural visibility conditions; progress to date; and the uniform rate of progress. For each mandatory Class I Federal area located within the State, the State must determine the following:

- (i) Baseline visibility conditions for the most impaired and clearest days. The period for establishing baseline visibility conditions is 2000 to 2004. The State must calculate the baseline visibility conditions for the most impaired days and the clearest days using available monitoring data. To determine the baseline visibility condition, the State must calculate the average of the annual deciview index values for the most impaired days and for the clearest days for the calendar years from 2000 to 2004. The baseline visibility condition for the most impaired days or the clearest days is the average of the respective annual values. For purposes of calculating the uniform rate of progress, the baseline visibility condition for the most impaired days must be associated with the last day of 2004. For mandatory Class I Federal areas without onsite monitoring data for 2000-2004, the State must establish baseline values using the most representative available monitoring data for 2000-2004, in consultation with the Administrator or his or her designee. For mandatory Class I Federal areas with incomplete monitoring data for 2000-2004, the State must establish baseline values using the 5 complete years of monitoring data closest in time to 2000-2004.
- (ii) Natural visibility conditions for the most impaired and clearest days. A State must calculate natural visibility condition by estimating the average deciview index existing under natural conditions for the most impaired days or the clearest days based on available monitoring information and appropriate data analysis techniques; and
- (iii) Current visibility conditions for the most impaired and clearest days. The period for calculating current visibility conditions is the most recent 5-year period for which data are available. The State must calculate the current visibility conditions for the most impaired days and the clearest days using available monitoring data. To calculate each current visibility condition, the State must calculate the average of the annual deciview index values for the years in the most recent 5-year period. The current visibility condition for the most impaired or the clearest days is the average of the respective annual values.

- (iv) Progress to date for the most impaired and clearest days. Actual progress made towards the natural visibility condition since the baseline period, and actual progress made during the previous implementation period up to and including the period for calculating current visibility conditions, for the most impaired and for the clearest days.
- (v) Differences between current visibility condition and natural visibility condition. The number of deciviews by which the current visibility condition exceeds the natural visibility condition, for the most impaired and for the clearest days.
- (vi) Uniform rate of progress. (A) The uniform rate of progress for each mandatory Class I Federal area in the State. To calculate the uniform rate of progress, the State must compare the baseline visibility condition for the most impaired days to the natural visibility condition for the most impaired days in the mandatory Class I Federal area and determine the uniform rate of visibility improvement (measured in deciviews of improvement per year) that would need to be maintained during each implementation period in order to attain natural visibility conditions by the end of 2064.
- (B) As part of its implementation plan submission, the State may propose (1) an adjustment to the uniform rate of progress for a mandatory Class I Federal area to account for impacts from anthropogenic sources outside the United States and/or (2) an adjustment to the uniform rate of progress for the mandatory Class I Federal area to account for impacts from wildland prescribed fires that were conducted with the objective to establish, restore, and/ or maintain sustainable and resilient wildland ecosystems, to reduce the risk of catastrophic wildfires, and/or to preserve endangered or threatened species during which appropriate basic smoke management practices were applied. To calculate the proposed adjustment(s), the State must add the estimated impact(s) to the natural visibility condition and compare the baseline visibility condition for the most impaired days to the resulting sum. If the Administrator determines that the State

has estimated the impact(s) from anthropogenic sources outside the United States and/or wildland prescribed fires using scientifically valid data and methods, the Administrator may approve the proposed adjustment(s) to the uniform rate of progress.

- (2) Long-term strategy for regional haze. Each State must submit a longterm strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State that may be affected by emissions from the State. The long-term strategy must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to (f)(2)(i) through (iv). In establishing its longterm strategy for regional haze, the State must meet the following requirements:
- (i) The State must evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment. The State should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources. The State must include in its implementation plan a description of the criteria it used to determine which sources or groups of sources it evaluated and how the four factors were taken into consideration in selecting the measures for inclusion in its long-term strategy. In considering the time necessary for compliance, if the State concludes that a control measure cannot reasonably be installed and become operational until after the end of the implementation period, the State may not consider this fact in determining whether the measure is necessary to make reasonable progress.
- (ii) The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the

mandatory Class I Federal area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

- (A) The State must demonstrate that it has included in its implementation plan all measures agreed to during state-to-state consultations or a regional planning process, or measures that will provide equivalent visibility improvement.
- (B) The State must consider the emission reduction measures identified by other States for their sources as being necessary to make reasonable progress in the mandatory Class I Federal area.
- (C) In any situation in which a State cannot agree with another State on the emission reduction measures necessary to make reasonable progress in a mandatory Class I Federal area, the State must describe the actions taken to resolve the disagreement. In reviewing the State's implementation plan, the Administrator will take this information into account in determining whether the plan provides for reasonable progress at each mandatory Class I Federal area that is located in the State or that may be affected by emissions from the State. All substantive interstate consultations must be documented.
- (iii) The State must document the technical basis, including modeling, monitoring, cost, engineering, and emissions information, on which the State is relying to determine the emission reduction measures that are necessary to make reasonable progress in each mandatory Class I Federal area it affects. The State may meet this requirement by relying on technical analyses developed by a regional planning process and approved by all State participants. The emissions information must include, but need not be limited to, information on emissions in a year at least as recent as the most recent year for which the State has submitted emission inventory information to the Administrator in compliance with the triennial reporting requirements of subpart A of this part. However, if a State has made a submission for a new inventory year to meet the requirements of subpart A in the period

12 months prior to submission of the SIP, the State may use the inventory year of its prior submission.

- (iv) The State must consider the following additional factors in developing its long-term strategy:
- (A) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment;
- (B) Measures to mitigate the impacts of construction activities;
- (C) Source retirement and replacement schedules;
- (D) Basic smoke management practices for prescribed fire used for agricultural and wildland vegetation management purposes and smoke management programs; and
- (E) The anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.
- (3) Reasonable progress goals. (i) A state in which a mandatory Class I Federal area is located must establish reasonable progress goals (expressed in deciviews) that reflect the visibility conditions that are projected to be achieved by the end of the applicable implementation period as a result of those enforceable emissions limitations, compliance schedules, and other measures required under paragraph (f)(2) of this section that can be fully implemented by the end of the applicable implementation period, as well as the implementation of other requirements of the CAA. The long-term strategy and the reasonable progress goals must provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period.

(ii)(A) If a State in which a mandatory Class I Federal area is located establishes a reasonable progress goal for the most impaired days that provides for a slower rate of improvement in visibility than the uniform rate of progress calculated under paragraph (f)(1)(vi) of this section, the State must demonstrate, based on the analysis required by paragraph (f)(2)(i) of this section, that there are no additional emission reduction measures for anthropogenic sources or groups of sources in

the State that may reasonably be anticipated to contribute to visibility impairment in the Class I area that would be reasonable to include in the longterm strategy. The State must provide a robust demonstration, including documenting the criteria used to determine which sources or groups or sources were evaluated and how the four factors required by paragraph (f)(2)(i) were taken into consideration in selecting the measures for inclusion in its long-term strategy. The State must provide to the public for review as part of its implementation plan an assessment of the number of years it would take to attain natural visibility conditions if visibility improvement were to continue at the rate of progress selected by the State as reasonable for the implementation period.

(B) If a State contains sources which are reasonably anticipated to contribute to visibility impairment in a mandatory Class I Federal area in another State for which a demonstration by the other State is required under (f)(3)(ii)(A), the State must demonstrate that there are no additional emission reduction measures for anthropogenic sources or groups of sources in the State that may reasonably be anticipated to contribute to visibility impairment in the Class I area that would be reasonable to include in its own long-term strategy. The State must provide a robust demonstration, including documenting the criteria used to determine which sources or groups or sources were evaluated and how the four factors required by paragraph (f)(2)(i) were taken into consideration in selecting the measures for inclusion in its long-term strategy.

(iii) The reasonable progress goals established by the State are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan in providing for reasonable progress towards achieving natural visibility conditions at that area.

(iv) In determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions, the Administrator will also evaluate the demonstrations developed by the State

pursuant to paragraphs (f)(2) and (f)(3)(ii)(A) of this section and the demonstrations provided by other States pursuant to paragraphs (f)(2) and (f)(3)(ii)(B) of this section.

- (4) If the Administrator, Regional Administrator, or the affected Federal Land Manager has advised a State of a need for additional monitoring to assess reasonably attributable visibility impairment at the mandatory Class I Federal area in addition to the monitoring currently being conducted, the State must include in the plan revision an appropriate strategy for evaluating reasonably attributable visibility impairment in the mandatory Class I Federal area by visual observation or other appropriate monitoring techniques.
- (5) So that the plan revision will serve also as a progress report, the State must address in the plan revision the requirements of paragraphs (g)(1) through (5) of this section. However, the period to be addressed for these elements shall be the period since the most recent progress report.
- (6) Monitoring strategy and other implementation plan requirements. The State must submit with the implementation plan a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the State. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environments network. The implementation plan must also provide for the following:
- (i) The establishment of any additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the State are being achieved.
- (ii) Procedures by which monitoring data and other information are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the State.
- (iii) For a State with no mandatory Class I Federal areas, procedures by which monitoring data and other information are used in determining the contribution of emissions from within

the State to regional haze visibility impairment at mandatory Class I Federal areas in other States.

- (iv) The implementation plan must provide for the reporting of all visibility monitoring data to the Administrator at least annually for each mandatory Class I Federal area in the State. To the extent possible, the State should report visibility monitoring data electronically.
- (v) A statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area. The inventory must include emissions for the most recent year for which data are available, and estimates of future projected emissions. The State must also include a commitment to update the inventory periodically.
- (vi) Other elements, including reporting, recordkeeping, and other measures, necessary to assess and report on visibility.
- (g) Requirements for periodic reports describing progress towards the reasonable progress goals. Each State identified in §51.300(b) must periodically submit a report to the Administrator evaluating progress towards the reasonable progress goal for each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State that may be affected by emissions from within the State. The first progress report is due 5 years from submittal of the initial implementation plan addressing paragraphs (d) and (e) of this section. The first progress reports must be in the form of implementation plan revisions that comply with the procedural requirements of §51.102 and §51.103. Subsequent progress reports are due by January 31, 2025, July 31, 2033, and every 10 years thereafter. Subsequent progress reports must be made available for public inspection and comment for at least 30 days prior to submission to EPA and all comments received from the public must be submitted to EPA along with the subsequent progress report, along with an explanation of any changes to the progress report made in response to

these comments. Periodic progress reports must contain at a minimum the following elements:

- (1) A description of the status of implementation of all measures included in the implementation plan for achieving reasonable progress goals for mandatory Class I Federal areas both within and outside the State.
- (2) A summary of the emissions reductions achieved throughout the State through implementation of the measures described in paragraph (g)(1) of this section.
- (3) For each mandatory Class I Federal area within the State, the State must assess the following visibility conditions and changes, with values for most impaired, least impaired and/or clearest days as applicable expressed in terms of 5-year averages of these annual values. The period for calculating current visibility conditions is the most recent 5-year period preceding the required date of the progress report for which data are available as of a date 6 months preceding the required date of the progress report.
- (i)(A) Progress reports due before January 31, 2025. The current visibility conditions for the most impaired and least impaired days.
- (B) Progress reports due on and after January 31, 2025. The current visibility conditions for the most impaired and clearest days;
- (ii)(A) Progress reports due before January 31, 2025. The difference between current visibility conditions for the most impaired and least impaired days and baseline visibility conditions.
- (B) Progress reports due on and after January 31, 2025. The difference between current visibility conditions for the most impaired and clearest days and baseline visibility conditions.
- (iii)(A) Progress reports due before January 31, 2025. The change in visibility impairment for the most impaired and least impaired days over the period since the period addressed in the most recent plan required under paragraph (f) of this section.
- (B) Progress reports due on and after January 31, 2025. The change in visibility impairment for the most impaired and clearest days over the period since the period addressed in the

most recent plan required under paragraph (f) of this section.

- (4) An analysis tracking the change over the period since the period addressed in the most recent plan required under paragraph (f) of this section in emissions of pollutants contributing to visibility impairment from all sources and activities within the State. Emissions changes should be identified by type of source or activity. With respect to all sources and activities, the analysis must extend at least through the most recent year for which the state has submitted emission inventory information to the Administrator in compliance with the triennial reporting requirements of subpart A of this part as of a date 6 months preceding the required date of the progress report. With respect to sources that report directly to a centralized emissions data system operated by the Administrator, the analysis must extend through the most recent year for which the Administrator has provided a State-level summary of such reported data or an internet-based tool by which the State may obtain such a summary as of a date 6 months preceding the required date of the progress report. The State is not required to backcast previously reported emissions to be consistent with more recent emissions estimation procedures, and may draw attention to actual or possible inconsistencies created by changes in estimation procedures.
- (5) An assessment of any significant changes in anthropogenic emissions within or outside the State that have occurred since the period addressed in the most recent plan required under paragraph (f) of this section including whether or not these changes in anthropogenic emissions were anticipated in that most recent plan and whether they have limited or impeded progress in reducing pollutant emissions and improving visibility.
- (6) An assessment of whether the current implementation plan elements and strategies are sufficient to enable the State, or other States with mandatory Class I Federal areas affected by emissions from the State, to meet all established reasonable progress goals

for the period covered by the most recent plan required under paragraph (f) of this section.

- (7) For progress reports for the first implementation period only, a review of the State's visibility monitoring strategy and any modifications to the strategy as necessary.
- (8) For a state with a long-term strategy that includes a smoke management program for prescribed fires on wildland that conducts a periodic program assessment, a summary of the most recent periodic assessment of the smoke management program including conclusions if any that were reached in the assessment as to whether the program is meeting its goals regarding improving ecosystem health and reducing the damaging effects of catastrophic wildfires.
- (h) Determination of the adequacy of existing implementation plan. At the same time the State is required to submit any progress report to EPA in accordance with paragraph (g) of this section, the State must also take one of the following actions based upon the information presented in the progress report:
- (1) If the State determines that the existing implementation plan requires no further substantive revision at this time in order to achieve established goals for visibility improvement and emissions reductions, the State must provide to the Administrator a declaration that revision of the existing implementation plan is not needed at this time.
- (2) If the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another State(s) which participated in a regional planning process, the State must provide notification to the Administrator and to the other State(s) which participated in the regional planning process with the States. The State must also collaborate with the other State(s) through the regional planning process for the purpose of developing additional strategies to address the plan's deficiencies.
- (3) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources

in another country, the State shall provide notification, along with available information, to the Administrator

- (4) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources within the State, the State shall revise its implementation plan to address the plan's deficiencies within one year.
- (i) What are the requirements for State and Federal Land Manager coordination?
  (1) By November 29, 1999, the State must identify in writing to the Federal Land Managers the title of the official to which the Federal Land Manager of any mandatory Class I Federal area can submit any recommendations on the implementation of this subpart including, but not limited to:
- (i) Identification of impairment of visibility in any mandatory Class I Federal area(s): and
- (ii) Identification of elements for inclusion in the visibility monitoring strategy required by §51.305 and this section.
- (2) The State must provide the Federal Land Manager with an opportunity for consultation, in person at a point early enough in the State's policy analyses of its long-term strategy emission reduction obligation so that information and recommendations provided by the Federal Land Manager can meaningfully inform the State's decisions on the long-term strategy. The opportunity for consultation will be deemed to have been early enough if the consultation has taken place at least 120 days prior to holding any public hearing or other public comment opportunity on an implementation plan (or plan revision) for regional haze required by this subpart. The opportunity for consultation on an implementation plan (or plan revision) or on a progress report must be provided no less than 60 days prior to said public hearing or public comment opportunity. This consultation must include the opportunity for the affected Federal Land Managers to discuss their:
- (i) Assessment of impairment of visibility in any mandatory Class I Federal area; and

- (ii) Recommendations on the development and implementation of strategies to address visibility impairment.
- (3) In developing any implementation plan (or plan revision) or progress report, the State must include a description of how it addressed any comments provided by the Federal Land Managers.
- (4) The plan (or plan revision) must provide procedures for continuing consultation between the State and Federal Land Manager on the implementation of the visibility protection program required by this subpart, including development and review of implementation plan revisions and progress reports, and on the implementation of other programs having the potential to contribute to impairment of visibility in mandatory Class I Federal areas.

[64 FR 35765, July 1, 1999, as amended at 70 FR 39156, July 6, 2005; 71 FR 60631, Oct. 13, 2006; 77 FR 33656, June 7, 2012; 82 FR 3124, Jan. 10, 2017]

# §51.309 Requirements related to the Grand Canyon Visibility Transport Commission.

(a) What is the purpose of this section? This section establishes the requirements for the first regional haze implementation plan to address regional haze visibility impairment in the 16 Class I areas covered by the Grand Canyon Visibility Transport Commission Report. For the period through 2018, certain States (defined in paragraph (b) of this section as Transport Region States) may choose to imthe Commission's plement ommendations within the framework of the national regional haze program and applicable requirements of the Act by complying with the provisions of this section. If a Transport Region State submits an implementation plan which is approved by EPA as meeting the requirements of this section, it will be deemed to comply with the requirements for reasonable progress with respect to the 16 Class I areas for the period from approval of the plan through 2018. Any Transport Region State electing not to submit an implementation plan under this section is subject to the requirements of §51.308 in the same manner and to the same extent as any State not included within the

Transport Region. Except as provided in paragraph (g) of this section, each Transport Region State is also subject to the requirements of §51.308 with respect to any other Federal mandatory Class I areas within the State or affected by emissions from the State.

- (b) Definitions. For the purposes of this section:
- (1) 16 Class I areas means the following mandatory Class I Federal areas on the Colorado Plateau: Grand Canyon National Park, Sycamore Canyon Wilderness, Petrified Forest National Park, Mount Baldy Wilderness, San Pedro Parks Wilderness, Mesa Verde National Park, Weminuche Wilderness, Black Canyon of the Gunnison Wilderness, West Elk Wilderness, Maroon Bells Wilderness, Flat Tops Wilderness, Arches National Park, Canyonlands National Park, Capital Reef National Park, Bryce Canyon National Park, and Zion National Park.
- (2) Transport Region State means one of the States that is included within the Transport Region addressed by the Grand Canyon Visibility Transport Commission (Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah, and Wyoming).
- (3) Commission Report means the report of the Grand Canyon Visibility Transport Commission entitled "Recommendations for Improving Western Vistas," dated June 10, 1996.
- (4) Fire means wildfire, wildland fire, prescribed fire, and agricultural burning conducted and occurring on Federal, State, and private wildlands and farmlands.
- (5) Milestone means the maximum level of annual regional  $SO_2$  emissions, in tons per year, for a given year, assessed annually, through the year 2018, consistent with paragraph (d)(4) of this section.
- (6) Continuous decline in total mobile source emissions means that the projected level of emissions from mobile sources of each listed pollutant in 2008, 2013, and 2018, are less than the projected level of emissions from mobile sources of each listed pollutant for the previous period (i.e., 2008 less than 2003; 2013 less than 2008; and 2018 less than 2013).
- (7) Base year means the year for which data for a source included within

the program were used by the WRAP to calculate emissions as a starting point for development of the milestone required by paragraph (d)(4)(i) of this section.

- (8)-(12) [Reserved]
- (13) Eligible renewable energy resource, for purposes of 40 CFR 51.309, means electricity generated by non-nuclear and non-fossil low or no air emission technologies.
- (c) Implementation Plan Schedule. Each Transport Region State electing to submit an implementation plan under this section must submit such a plan no later than December 17, 2007. Indian Tribes may submit implementation plans after this deadline.
- (d) Requirements of the first implementation plan for States electing to adopt all of the recommendations of the Commission Report. Except as provided for in paragraph (e) of this section, each Transport Region State must submit an implementation plan that meets the following requirements:
- (1) Time period covered. The implementation plan must be effective through December 31, 2018 and continue in effect until an implementation plan revision is approved by EPA in accordance with §51.308(f).
- (2) Projection of visibility improvement. For each of the 16 mandatory Class I areas located within the Transport Region State, the plan must include a projection of the improvement in visiconditions (expressed deciviews, and in any additional ambient visibility metrics deemed appropriate by the State) expected through the year 2018 for the most impaired and least impaired days, based on the implementation of all measures as required in the Commission report and the provisions in this section. The projection must be made in consultation with other Transport Region States with sources which may be reasonably anticipated to contribute to visibility impairment in the relevant Class I area. The projection may be based on a satisfactory regional analysis.
- (3) Treatment of clean-air corridors. The plan must describe and provide for implementation of comprehensive emission tracking strategies for clean-air corridors to ensure that the visibility does not degrade on the least-im-

paired days at any of the 16 Class I areas. The strategy must include:

- (i) An identification of clean-air corridors. The EPA will evaluate the State's identification of such corridors based upon the reports of the Commission's Meteorology Subcommittee and any future updates by a successor organization;
- (ii) Within areas that are clean-air corridors, an identification of patterns of growth or specific sites of growth that could cause, or are causing, significant emissions increases that could have, or are having, visibility impairment at one or more of the 16 Class I areas.
- (iii) In areas outside of clean-air corridors, an identification of significant emissions growth that could begin, or is beginning, to impair the quality of air in the corridor and thereby lead to visibility degradation for the least-impaired days in one or more of the 16 Class I areas.
- (iv) If impairment of air quality in clean air corridors is identified pursuant to paragraphs (d)(3)(i) and (iii) of this section, an analysis of the effects of increased emissions, including provisions for the identification of the need for additional emission reductions measures, and implementation of the additional measures where necessary.
- (v) A determination of whether other clean air corridors exist for any of the 16 Class I areas. For any such clean air corridors, an identification of the necessary measures to protect against future degradation of air quality in any of the 16 Class I areas.
- (4) Implementation of stationary source reductions. The first implementation plan submission must include:
- (i) Provisions for stationary source emissions of  $SO_2$ . The plan submission must include a  $SO_2$  program that contains quantitative emissions milestones for stationary source  $SO_2$  emissions for each year through 2018. After the first two years of the program, compliance with the annual milestones may be measured by comparing a three-year rolling average of actual emissions with a rolling average of the emissions milestones for the same three years. During the first two years of the program, compliance with the milestones may be measured by a

methodology of the States' choosing, so long as all States in the program use the same methodology. Compliance with the 2018 milestone shall be measured by comparing actual emissions from the year 2018 with the 2018 milestone. The milestones must provide for steady and continuing emissions reductions through 2018 consistent with the Commission's definition of reasonable progress, its goal of 50 to 70 percent reduction in SO<sub>2</sub> emissions from 1990 actual emission levels by 2040, applicable requirements under the CAA, and the timing of implementation plan assessments of progress and identification of any deficiencies which will be due in the years 2013 and 2018. The milestones must be shown to provide for greater reasonable progress than would be achieved by application of BART pursuant to §51.308(e)(2).

- (ii) Documentation of emissions calculation methods for SO<sub>2</sub>. The plan submission must include documentation of the specific methodology used to calculate SO<sub>2</sub> emissions during the base year for each emitting unit included in the program. The implementation plan must also provide for documentation of any change to the specific methodology used to calculate emissions at any emitting unit for any year after the base year.
- (iii) Monitoring, recordkeeping, and reporting of SO<sub>2</sub> emissions. The plan submission must include provisions requiring the monitoring, recordkeeping, and annual reporting of actual stationary source SO<sub>2</sub> emissions within the State. The monitoring, recordkeeping, and reporting data must be sufficient to determine annually whether the milestone for each year through 2018 is achieved. The plan submission must provide for reporting of these data by the State to the Administrator and to the regional planning organization. The plan must provide for retention of records for at least 10 years from the establishment of the record.
- (iv) Criteria and Procedures for a Market Trading Program. The plan must include the criteria and procedures for conducting an annual evaluation of whether the milestone is achieved and, in accordance with paragraph (d)(4)(v) of this section, for acti-

vating a market trading program in the event the milestone is not achieved. A draft of the annual report evaluating whether the milestone for each year is achieved shall be completed no later than 12 months from the end of each milestone year. The plan must also provide for assessments of the program in the years 2013 and 2018.

- (v) Market trading program. The implementation plan must include requirements for a market trading program to be implemented in the event that a milestone is not achieved. The plan shall require that the market trading program be activated beginning no later than 15 months after the end of the first year in which the milestone is not achieved. The plan shall also require that sources comply, as soon as practicable, with the requirement to hold allowances covering their emissions. Such market trading program must be sufficient to achieve the milestones in paragraph (d)(4)(i) of this section, and must be consistent with the elements for such programs outlined in  $\S51.308(e)(2)(vi)$ . Such a program may include a geographic enhancement to the program to address the requirement under §51.302(b) related to reasonably attributable impairment from the pollutants covered under the program.
  - (vi) Provision for the 2018 milestone.
- (A) Unless and until a revised implementation plan is submitted in accordance with §51.308(f) and approved by EPA, the implementation plan shall prohibit emissions from covered stationary sources in any year beginning in 2018 that exceed the year 2018 milestone. In no event shall a market-based program approved under §51.308(f) allow an emissions cap for SO2 that is less stringent than the 2018 milestone. unless the milestones are replaced by a different program approved by EPA as meeting the BART and reasonable progress requirements established in § 51.308
- (B) The implementation plan must provide a framework, including financial penalties for excess emissions based on the 2018 milestone, sufficient to ensure that the 2018 milestone will be met even if the implementation of

the market trading program in paragraph (d)(4)(v) of this section has not yet been triggered, or the source allowance compliance provision of the trading program is not yet in effect.

- (vii) Provisions for stationary source emissions of  $NO_X$  and PM. The implementation plan must contain any necessary long term strategies and BART requirements for stationary source PM and  $NO_X$  emissions. Any such BART provisions may be submitted pursuant to either  $\S51.308(e)(1)$  or  $\S51.308(e)(2)$ .
- (5) *Mobile sources*. The plan submission must provide for:
- (i) Statewide inventories of onroad and nonroad mobile source emissions of VOC,  $NO_X$ ,  $SO_2$ ,  $PM_{2.5}$ , elemental carbon, and organic carbon for the years 2003, 2008, 2013, and 2018.
- (A) The inventories must demonstrate a continuous decline in total mobile source emissions (onroad plus nonroad; tailpipe and evaporative) of VOC,  $NO_X$ ,  $PM_{2.5}$ , elemental carbon, and organic carbon, evaluated separately. If the inventories show a continuous decline in total mobile source emissions of each of these pollutants over the period 2003-2018, no further action is required as part of this plan to address mobile source emissions of these pollutants. If the inventories do not show a continuous decline in mobile source emissions of one or more of these pollutants over the period 2003-2018, the plan submission must provide for an implementation plan revision by no later than December 31, 2008 containing any necessary long-term strategies to achieve a continuous decline in total mobile source emissions of the pollutant(s), to the extent practicable, considering economic and technological reasonableness and federal preemption of vehicle standards and fuel standards under title II of the CAA.
- (B) The plan submission must also provide for an implementation plan revision by no later than December 31, 2008 containing any long-term strategies necessary to reduce emissions of SO<sub>2</sub> from nonroad mobile sources, consistent with the goal of reasonable progress. In assessing the need for such long-term strategies, the State may consider emissions reductions achieved or anticipated from any new Federal

standards for sulfur in nonroad diesel fuel.

- (ii) Interim reports to EPA and the public in years 2003, 2008, 2013, and 2018 on the implementation status of the regional and local strategies recommended by the Commission Report to address mobile source emissions.
- (6) Programs related to fire. The plan must provide for:
- (i) Documentation that all Federal, State, and private prescribed fire programs within the State evaluate and address the degree visibility impairment from smoke in their planning and application. In addition the plan must include smoke management programs that include all necessary components including, but not limited to, actions to minimize emissions, evaluation of smoke dispersion, alternatives to fire, public notification, air quality monitoring, surveillance and enforcement, and program evaluation.
- (ii) A statewide inventory and emissions tracking system (spatial and temporal) of VOC, NO<sub>X</sub>, elemental and organic carbon, and fine particle emissions from fire. In reporting and tracking emissions from fire from within the State, States may use information from regional data-gathering and tracking initiatives.
- (iii) Identification and removal wherever feasible of any administrative barriers to the use of alternatives to burning in Federal, State, and private prescribed fire programs within the State.
- (iv) Enhanced smoke management programs for fire that consider visibility effects, not only health and nuisance objectives, and that are based on the criteria of efficiency, economics, law, emission reduction opportunities, land management objectives, and reduction of visibility impact.
- (v) Establishment of annual emission goals for fire, excluding wildfire, that will minimize emission increases from fire to the maximum extent feasible and that are established in cooperation with States, tribes, Federal land management agencies, and private entities.
- (7) Area sources of dust emissions from paved and unpaved roads. The plan must include an assessment of the impact of dust emissions from paved and unpaved roads on visibility conditions in the 16 Class I Areas. If such dust

emissions are determined to be a significant contributor to visibility impairment in the 16 Class I areas, the State must implement emissions management strategies to address the impact as necessary and appropriate.

- (8) Pollution prevention. The plan must provide for:
- (i) An initial summary of all pollution prevention programs currently in place, an inventory of all renewable energy generation capacity and production in use, or planned as of the year 2002 (expressed in megawatts and megawatt-hours), the total energy generation capacity and production for the State, the percent of the total that is renewable energy, and the State's anticipated contribution toward the renewable energy goals for 2005 and 2015, as provided in paragraph (d)(8)(vi) of this section.
- (ii) Programs to provide incentives that reward efforts that go beyond compliance and/or achieve early compliance with air-pollution related requirements.
- (iii) Programs to preserve and expand energy conservation efforts.
- (iv) The identification of specific areas where renewable energy has the potential to supply power where it is now lacking and where renewable energy is most cost-effective.
- (v) Projections of the short- and longterm emissions reductions, visibility improvements, cost savings, and secondary benefits associated with the renewable energy goals, energy efficiency and pollution prevention activities.
- (vi) A description of the programs relied on to achieve the State's contribution toward the Commission's goal that renewable energy will comprise 10 percent of the regional power needs by 2005 and 20 percent by 2015, and a demonstration of the progress toward achievement of the renewable energy goals in the years 2003, 2008, 2013, and 2018. This description must include documentation of the potential for renewable energy resources, the percentage of renewable energy associated with new power generation projects implemented or planned, and the renewable energy generation capacity and production in use and planned in the State. To the extent that it is not feasible for a State to meet its contribution to the

regional renewable energy goals, the State must identify in the progress reports the measures implemented to achieve its contribution and explain why meeting the State's contribution was not feasible.

- (9) Implementation of additional recommendations. The plan must provide for implementation of all other recommendations in the Commission report that can be practicably included as enforceable emission limits, schedules of compliance, or other enforceable measures (including economic incentives) to make reasonable progress toward remedying existing and preventing future regional haze in the 16 Class I areas. The State must provide a report to EPA and the public in 2003, 2008, 2013, and 2018 on the progress toward developing and implementing policy or strategy options recommended in the Commission Report.
- (10) Periodic implementation plan revisions and progress reports. Each Transport Region State must submit to the Administrator periodic reports in the years 2013 and as specified for subsequent progress reports in §51.308(g). The progress report due in 2013 must be in the form of an implementation plan revision that complies with the procedural requirements of §§51.102 and 51.103.
- (i) The report due in 2013 will assess the area for reasonable progress as provided in this section for mandatory Class I Federal area(s) located within the State and for mandatory Class I Federal area(s) located outside the State that may be affected by emissions from within the State. This demonstration may be based on assessments conducted by the States and/or a regional planning body. The progress report due in 2013 must contain at a minimum the following elements:
- (A) A description of the status of implementation of all measures included in the implementation plan for achieving reasonable progress goals for mandatory Class I Federal areas both within and outside the State.
- (B) A summary of the emissions reductions achieved throughout the State through implementation of the measures described in paragraph (d)(10)(i)(A) of this section.

- (C) For each mandatory Class I Federal area within the State, an assessment of the following: the current visibility conditions for the most impaired and least impaired days; the difference between current visibility conditions for the most impaired and least impaired days and baseline visibility conditions; the change in visibility impairment for the most impaired and least impaired days over the past 5 years.
- (D) An analysis tracking the change over the past 5 years in emissions of pollutants contributing to visibility impairment from all sources and activities within the State. Emissions changes should be identified by type of source or activity. The analysis must be based on the most recent updated emissions inventory, with estimates projected forward as necessary and appropriate, to account for emissions changes during the applicable 5-year period.
- (E) An assessment of any significant changes in anthropogenic emissions within or outside the State that have occurred over the past 5 years that have limited or impeded progress in reducing pollutant emissions and improving visibility.
- (F) An assessment of whether the current implementation plan elements and strategies are sufficient to enable the State, or other States with mandatory Federal Class I areas affected by emissions from the State, to meet all established reasonable progress goals.
- (G) A review of the State's visibility monitoring strategy and any modifications to the strategy as necessary.
- (ii) At the same time the State is required to submit the 5-year progress report due in 2013 to EPA in accordance with paragraph (d)(10)(i) of this section, the State must also take one of the following actions based upon the information presented in the progress report:
- (A) If the State determines that the existing implementation plan requires no further substantive revision at this time in order to achieve established goals for visibility improvement and emissions reductions, the State must provide to the Administrator a negative declaration that further revision of the existing implementation plan is not needed at this time.

- (B) If the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another State(s) which participated in a regional planning process, the State must provide notification to the Administrator and to the other State(s) which participated in the regional planning process with the States. The State must also collaborate with the other State(s) through the regional planning process for the purpose of developing additional strategies to address the plan's deficiencies.
- (C) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another country, the State shall provide notification, along with available information, to the Administrator.
- (D) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from within the State, the State shall develop additional strategies to address the plan deficiencies and revise the implementation plan no later than one year from the date that the progress report was
- (iii) The requirements of §51.308(g) regarding requirements for periodic reports describing progress towards the reasonable progress goals apply to States submitting plans under this section, with respect to subsequent progress reports due after 2013.
- (iv) The requirements of §51.308(h) regarding determinations of the adequacy of existing implementation plans apply to States submitting plans under this section, with respect to subsequent progress reports due after 2013.
- (11) State planning and interstate coordination. In complying with the requirements of this section, States may include emission reductions strategies that are based on coordinated implementation with other States. Examples of these strategies include economic incentive programs and transboundary emissions trading programs. The implementation plan must include documentation of the technical and policy

basis for the individual State apportionment (or the procedures for apportionment throughout the trans-boundary region), the contribution addressed by the State's plan, how it coordinates with other State plans, and compliance with any other appropriate implementation plan approvability criteria. States may rely on the relevant technical, policy and other analyses developed by a regional entity (such as the Western Regional Air Partnership) in providing such documentation. Conversely, States may elect to develop their own programs without relying on work products from a regional entity.

- (12) Tribal implementation. Consistent with 40 CFR Part 49, tribes within the Transport Region may implement the required visibility programs for the 16 Class I areas, in the same manner as States, regardless of whether such tribes have participated as members of a visibility transport commission.
- (e) States electing not to implement the commission recommendations. Any Transport Region State may elect not to implement the Commission recommendations set forth in paragraph (d) of this section. Such States are required to comply with the timelines and requirements of §51.308. Any Transport Region State electing not to implement the Commission recommendations must advise the other States in the Transport Region of the nature of the program and the effect of the program on visibility-impairing emissions, so that other States can take this information into account in developing programs under this section.
  - (f) [Reserved]
- (g) Additional Class I areas. Each Transport Region State implementing the provisions of this section as the basis for demonstrating reasonable progress for mandatory Class I Federal areas other than the 16 Class I areas must include the following provisions in its implementation plan. If a Transport Region State submits an implementation plan which is approved by EPA as meeting the requirements of this section, it will be deemed to comply with the requirements for reasonable progress for the period from approval of the plan to 2018.
- (1) A demonstration of expected visibility conditions for the most impaired

- and least impaired days at the additional mandatory Class I Federal area(s) based on emissions projections from the long-term strategies in the implementation plan. This demonstration may be based on assessments conducted by the States and/or a regional planning body.
- (2) Provisions establishing reasonable progress goals and implementing any additional measures necessary to demonstrate reasonable progress for the additional mandatory Federal Class I areas. These provisions must comply with the provisions of §51.308(d)(1) through (4).
- (i) In developing long-term strategies pursuant to §51.308(d)(3), the State may build upon the strategies implemented under paragraph (d) of this section, and take full credit for the visibility improvement achieved through these strategies.
- (ii) The requirement under §51.308(e) related to Best Available Retrofit Technology for regional haze is deemed to be satisfied for pollutants addressed by the milestones and backstop trading program if, in establishing the emission reductions milestones under paragraph (d)(4) of this section, it is shown that greater reasonable progress will be achieved for these additional Class I areas than would be achieved through the application of source-specific BART emission limitations under §51.308(e)(1).
- (iii) The Transport Region State may consider whether any strategies necessary to achieve the reasonable progress goals required by paragraph (g)(2) of this section are incompatible with the strategies implemented under paragraph (d) of this section to the extent the State adequately demonstrates that the incompatibility is related to the costs of the compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, or the remaining useful life of any existing source subject to such requirements.

[64 FR 35769, July 1, 1999, as amended at 68 FR 33784, June 5, 2003; 68 FR 39846, July 3, 2003; 68 FR 61369, Oct. 28, 2003; 68 FR 71014, Dec. 22, 2003; 71 FR 60632, Oct. 13, 2006; 82 FR 3128, Jan. 10, 2017]



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190		54.9
191		54.6
		54.6
		54.8
194		55.1
195		55.5
		55.7
		56.1
		56.3
199		56.6
		56.7
		56.7
		56.3
		56
		55
		53.4
		51.6
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		30.5
		27
		23.5
		20
		16.5
		13
		9.5
		6
		2.5
239		0

 $[57~{\rm FR}~52987,~{\rm Nov.}~5,~1992,~{\rm as}~{\rm amended}~{\rm at}~58~{\rm FR}~59367,~{\rm Nov.}~9,~1993]$ 

Subpart T—Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws

AUTHORITY: 42 U.S.C. 7401-7671q.

#### §51.390 Implementation plan revision.

(a) Purpose and applicability. The federal conformity rules under part 93,

subpart A, of this chapter, in addition to any existing applicable state requirements, establish the conformity criteria and procedures necessary to meet the requirements of Clean Air Act section 176(c) until such time as EPA approves the conformity implementation plan revision required by this subpart. A state with an area subject to this subpart and part 93, subpart A, of this chapter must submit to EPA a revision to its implementation plan which contains criteria and procedures for DOT, MPOs and other state or local agencies to assess the conformity of transportation plans, programs, and projects, consistent with this subpart and part 93, subpart A, of this chapter. The federal conformity regulations contained in part 93, subpart A, of this chapter would continue to apply for the portion of the requirements that the state did not include in its conformity implementation plan and the portion, if any, of the state's conformity provisions that is not approved by EPA. In addition, any previously applicable implementation plan conformity requirements remain enforceable until the state submits a revision to its applicable implementation plan to specifically remove them and that revision is approved by EPA.

(b) Conformity implementation plan content. To satisfy the requirements of Clean Air Act section 176(c)(4)(E), the implementation plan revision required by this section must include the following three requirements of part 93, subpart A, of this chapter: §§ 93.105, 93.122(a)(4)(ii), and 93.125(c). A state may elect to include any other provisions of part 93, subpart A. If the provisions of the following sections of part 93, subpart A, of this chapter are included, such provisions must be included in verbatim form, except insofar as needed to clarify or to give effect to a stated intent in the revision to establish criteria and procedures more stringent than the requirements stated in this chapter: §§ 93.101, 93.102, 93.103, 93.104, 93.106, 93.109, 93.110, 93.111, 93.112, 93.113, 93.114, 93.115, 93.116, 93.117, 93.118, 93.119, 93.120, 93.121, 93.126, and 93.127. A state's conformity provisions may contain criteria and procedures more

stringent than the requirements described in this subpart and part 93, subpart A, of this chapter only if the state's conformity provisions apply equally to non-federal as well as federal entities.

(c) Timing and approval. A state must submit this revision to EPA by November 25, 1994 or within 12 months of an area's redesignation from attainment to nonattainment, if the state has not previously submitted such a revision. The state must also revise its conformity implementation plan within 12 months of the date of publication of any final amendments to §§ 93.105, 93.122(a)(4)(ii), and 93.125(c), as appropriate. Any other portions of part 93, subpart A, of this chapter that the state has included in its conformity implementation plan and EPA has approved must be revised in the state's implementation plan and submitted to EPA within 12 months of the date of publication of any final amendments to such sections. EPA will provide DOT with a 30-day comment period before taking action to approve or disapprove the submission. In order for EPA to approve the implementation plan revision submitted to EPA under this subpart, the plan revision must address and give full legal effect to the following three requirements of part 93, subpart A: §§ 93.105, 93.122(a)(4)(ii), and 93.125(c). Any other provisions that are incorporated into the conformity implementation plan must also be done in a manner that gives them full legal effect. Following EPA approval of the state conformity provisions (or a portion thereof) in a revision to the state's conformity implementation plan, conformity determinations will be governed by the approved (or approved portion of the) state criteria and procedures as well as any applicable portions of the federal conformity rules that are not addressed by the approved conformity SIP.

[73 FR 4438, Jan. 24, 2008]

### Subpart U—Economic Incentive Programs

SOURCE: 59 FR 16710, Apr. 7, 1994, unless otherwise noted.

#### §51.490 Applicability.

- (a) The rules in this subpart apply to any statutory economic incentive program (EIP) submitted to the EPA as an implementation plan revision to comply with sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(g) of the Act. Such programs may be submitted by any authorized governmental organization, including States, local governments, and Indian governing bodies.
- (b) The provisions contained in these rules, except as explicitly exempted, shall also serve as the EPA's policy guidance on discretionary EIP's submitted as implementation plan revisions for any purpose other than to comply with the statutory requirements specified in paragraph (a) of this section.

#### §51.491 Definitions.

Act means the Clean Air Act as amended November 15, 1990.

Actual emissions means the emissions of a pollutant from an affected source determined by taking into account actual emission rates associated with normal source operation and actual or representative production rates (i.e., capacity utilization and hours of operation).

Affected source means any stationary, area, or mobile source of a criteria pollutant(s) to which an EIP applies. This term applies to sources explicitly included at the start of a program, as well as sources that voluntarily enter (i.e., opt into) the program.

Allowable emissions means the emissions of a pollutant from an affected source determined by taking into account the most stringent of all applicable SIP emissions limits and the level of emissions consistent with source compliance with all Federal requirements related to attainment and maintenance of the NAAQS and the production rate associated with the maximum rated capacity and hours of operation (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both).

Area sources means stationary and nonroad sources that are too small and/or too numerous to be individually included in a stationary source emissions inventory.



- (h) Administrative procedures. The program shall contain a description of State commitments which are integral to the implementation of the program, and the administrative system to be used to implement the program, addressing the adequacy of the personnel, funding, and legislative authority.
- (1) States shall furnish adequate documentation of existing legal authority and demonstrated administrative capacity to implement and enforce the provisions of the EIP.
- (2) For programs which require private and/or public entities to establish emission-related economic incentives (e.g., programs requiring employers to exempt carpoolers/multiple occupancy vehicles from paying for parking), States shall furnish adequate documentation of State authority and administrative capacity to implement and enforce the underlying program.
- (i) Enforcement mechanisms. The program shall contain a compliance instrument(s) for all program requirements, which is legally binding and State and federally enforceable. This program element shall also include a State enforcement program which defines violations, and specifies auditing and inspections plans and provisions for enforcement actions. The program shall contain effective penalties for noncompliance which preserve the level of deterrence in traditional programs. For all such programs, the manner of collection of penalties must be specified.
- (1) Emission limit violations. (i) Programs imposing limits on mass emissions or emission rates that provide for extended averaging times and/or compliance on a multisource basis shall include procedures for determining the number of violations, the number of days of violation, and sources in violation, for statutory maximum penalty purposes, when the limits are exceeded. The State shall demonstrate that such procedures shall not lessen the incentive for source compliance as compared to a program applied on a source-bysource, daily basis.
- (ii) Programs shall require plans for remedying noncompliance at any facility that exceeds a multisource emissions limit for a given averaging pe-

- riod. These plans shall be enforceable both federally and by the State.
- (2) Violations of MRR requirements. The MRR requirements shall apply on a daily basis, as appropriate, and violations thereof shall be subject to State enforcement sanctions and to the Federal penalty of up to \$25,000 for each day a violation occurs or continues. In addition, where the requisite scienter conditions are met, violations of such requirements shall be subject to the Act's criminal penalty sanctions of section 113(c)(2), which provides for fines and imprisonment of up to 2 years.

#### § 51.494 Use of program revenues.

Any revenues generated from statutory EIP's shall be used by the State for any of the following:

- (a) Providing incentives for achieving emissions reductions.
- (b) Providing assistance for the development of innovative technologies for the control of  $O_3$  air pollution and for the development of lower-polluting solvents and surface coatings. Such assistance shall not provide for the payment of more than 75 percent of either the costs of any project to develop such a technology or the costs of development of a lower-polluting solvent or surface coating.
- (c) Funding the administrative costs of State programs under this Act. Not more than 50 percent of such revenues may be used for this purpose. The use of any revenues generated from discretionary EIP's shall not be constrained by the provisions of this part.

# Subpart W—Determining Conformity of General Federal Actions to State or Federal Implementation Plans

SOURCE: 58 FR 63247, Nov. 30, 1993, unless otherwise noted.

### § 51.850 [Reserved]

#### §51.851 State implementation plan (SIP) or Tribal implementation plan (TIP) revision.

(a) A State or eligible Tribe (a federally recognized tribal government determined to be eligible to submit a TIP under 40 CFR 49.6) may submit to the Environmental Protection Agency

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(EPA) a revision to its applicable implementation plan which contains criteria and procedures for assessing the conformity of Federal actions to the applicable implementation plan, consistent with this section and 40 CFR part 93, subpart B.

- (b) Until EPA approves the conformity implementation plan revision permitted by this section, Federal agencies shall use the provisions of 40 CFR part 93, subpart B in addition to any existing applicable State or tribal requirements, to demonstrate conformity with the applicable SIP or TIP as required by section 176(c) of the CAA (42 U.S.C. 7506).
- (c) Following EPA approval of the State or tribal conformity provisions (or a portion thereof) in a revision to the applicable SIP or TIP, conformity determinations shall be governed by the approved (or approved portion of) State or tribal criteria and procedures. The Federal conformity regulations contained in 40 CFR part 93, subpart B would apply only for the portion, if any, of the part 93 requirements not contained in the State or Tribe conformity provisions approved by EPA.
- (d) The State or tribal conformity implementation plan criteria and procedures cannot be any less stringent than the requirements in 40 CFR part 93, subpart B.
- (e) A State's or Tribe's conformity provisions may contain criteria and procedures more stringent than the requirements described in this subpart and part 93, subpart B, only if the State's or Tribe's conformity provisions apply equally to non-Federal as well as Federal entities.
- (f) In its SIP or TIP, the State or Tribe may identify a list of Federal actions or type of emissions that it presumes will conform. The State or Tribe may place whatever limitations on that list that it deems necessary. The State or Tribe must demonstrate that the action will not interfere with timely attainment or maintenance of the standard, meeting the reasonable further progress milestones or other requirements of the Clean Air Act. Federal agencies can rely on the list to determine that their emissions conform with the applicable SIP or TIP.

(g) Any previously applicable SIP or TIP requirements relating to conformity remain enforceable until EPA approves the revision to the SIP or TIP to specifically remove them.

[75 FR 17272, Apr. 5, 2010]

#### §§ 51.852-51.860 [Reserved]

## Subpart X—Provisions for Implementation of 8-hour Ozone National Ambient Air Quality Standard

SOURCE: 69 FR 23996, Apr. 30, 2004, unless otherwise noted.

### §51.900 Definitions.

The following definitions apply for purposes of this subpart. Any term not defined herein shall have the meaning as defined in 40 CFR 51.100.

- (a) *1-hour NAAQS* means the 1-hour ozone national ambient air quality standards codified at 40 CFR 50.9.
- (b) 8-hour NAAQS means the 8-hour ozone national ambient air quality standards codified at 40 CFR 50.10.
- (c) 1-hour ozone design value is the 1-hour ozone concentration calculated according to 40 CFR part 50, Appendix H and the interpretation methodology issued by the Administrator most recently before the date of the enactment of the CAA Amendments of 1990.
- (d) 8-Hour ozone design value is the 8-hour ozone concentration calculated according to 40 CFR part 50, appendix I.
- (e) CAA means the Clean Air Act as codified at 42 U.S.C. 7401–7671q (2003).
- (f) Applicable requirements means for an area the following requirements to the extent such requirements apply or applied to the area for the area's classification under section 181(a)(1) of the CAA for the 1-hour NAAQS at designation for the 8-hour NAAQS:
- (1) Reasonably available control technology (RACT).
- (2) Inspection and maintenance programs (I/M).
- (3) Major source applicability cut-offs for purposes of RACT.
- (4) Rate of Progress (ROP) reductions.
- (5) Stage II vapor recovery.
- (6) Clean fuels fleet program under section 183(c)(4) of the CAA.