



Nonattainment New Source Review (NNSR) Certification for the State of Maryland 2015 Ozone NAAQS Nonattainment Areas

SIP Number: 20-05

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Prepared for:

U.S. Environmental Protection Agency

Prepared by:

Maryland Department of the Environment



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CERTIFICATION THAT MARYLAND'S EXISTING NNSR PROGRAM ADDRESSES THE 2015 OZONE NAAQS SIP REQUIREMENTS RULE

The State of Maryland is certifying that our existing nonattainment new source review (NNSR) program, covering the Baltimore, MD, Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE, and Washington, DC-MD-VA nonattainment areas for the 2015 ozone NAAQS, is at least as stringent as the requirements at 40 CFR 51.165 for ozone and its precursors, as amended by the final rule titled *Implementation of the 2015 National Ambient Air Quality Standard for Ozone: State Implementation Plan Requirements* (83 FR 62998, December 6, 2018).

The requirements necessary to appropriately implement Maryland's NNSR program are included, but not limited to the following:

Table: 2015 Ozone NAAQS NNSR SIP Requirements					
40 CFR 51.165					
(a)(1)(iv)(A)(1)(i)-(iv) and (2): Major source thresholds for ozone – VOC and NOx	COMAR 26.11.17.01B(17)				
(a)(1)(iv)(A)(3): Change constitutes a major source by itself	COMAR 26.11.17.01B(17)(b)				
(a)(1)(v)(E): Significant net emissions increase of NOx is significant for ozone	COMAR 26.11.17.01B(16)(b)				
(a)(1)(v)(F): Any emissions change of VOC in Extreme area triggers NNSR	Maryland does not have any extreme areas, never has, therefore NA.				
(a)(1)(x)(A)-(C) and (E): Significant emissions rates for VOC and NOx as ozone precursors	COMAR 26.11.17.01B(26)				
(a)(3)(ii)(C)(1)-(2): Provisions for emissions reduction credits	COMAR 26.11.17.01B(10)A, 26.11.17.03B & .0406,				
(a)(8): Requirements for VOC apply to NOx as ozone precursors	COMAR 26.11.17.01B(24)				
(a)(9)(i)-(iii): Offset ratios for VOC and NOx for ozone nonattainment areas [subparagraphs (a)(9)(i)-(iii) were changed to (a)(9)(ii)-(iv)]	COMAR 26.11.17.03B(3)				
(a)(11): Interpollutant offsetting, or interpollutant trading or interprecursor trading or interprecursor offset substitution	COMAR 26.11.17.01&.04, Submitted to EPA as a SIP revision on 1/31/2020				
(a)(12): Anti-backsliding provision(s), where applicable	NNSR thresholds were set with more stringent nonattainment designations in 1997, Maryland has not revised, therefore NA.				

History of COMAR 26.11.17 submission and approval to EPA for SIP.

SIP 13-06 to add PM2.5, EPA approved on 7/13/15

SIP 07-13 to align MD definitions to federal definitions for the NSR program, EPA approved 8/2/12

SIP 03-08 to amend major source definition to include bump up to severe, EPA approved 9/20/2004

SIP 00-07 to amend and clarify, EPA approved 2/12/2001

SIP 93-04 to amend and clarify, EPA approved 2/12/2001

Attachments

- A. EPA approved SIP regulatory language for COMAR 26.11.17B. Proof of Proper Notification

ATTACHMENT A

Title 26 DEPARTMENT OF THE ENVIRONMENT Subtitle 11 AIR QUALITY

Chapter 17 Nonattainment Provisions for Major New Sources and Major Modifications Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

01 Definitions.

- A. For the purpose of this chapter, the following terms have the meanings indicated. Other applicable definitions may be found in COMAR 26.11.01.01.
- B. Terms Defined.
- (1) Actual Emissions.
- (a) "Actual emissions" means:
- (i) The actual rate of emissions of a regulated NSR pollutant from an emissions unit as determined in accordance with this subsection;
- (ii) In general, as of a particular date, 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, although the Department may allow the use of a different time period upon a determination that it is more representative of normal source operation; and
- (iii) As of a particular date, for any emissions unit which has not begun normal operations on the particular date, the unit's potential to emit on that date.
- (b) Actual emissions shall be calculated using the emissions unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
- (c) The Department may assume that source-specific allowable emissions for the emissions unit are equivalent to the actual emissions of the unit.
- (2) "Allowable emissions" means the emissions rate 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) Applicable standards as set forth in 40 CFR 60 and 61;
- (b) Any applicable Maryland State Implementation Plan (SIP) 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.
- (3) Baseline Actual Emissions.
- (a) "Baseline actual emissions" means the rate of emissions, in tons per year, of a regulated NSR pollutant.
- (b) For an existing electric utility steam generating unit, "baseline actual emissions" is determined by 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 the date on which a complete application was submitted. The Department may approve a different period upon a demonstration that it is more representative of normal source operations.
- (c) For an existing emissions unit, other than an electric utility steam generating unit, "baseline actual emissions" is determined by 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 5-year period immediately preceding the date on which a complete application was submitted. The Department may allow a different 24-month consecutive time period, within the last 10 years, upon a demonstration that it is more representative of normal source operations.
- (d) 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 the unit shall equal zero, and, thereafter, for all other purposes, shall equal the unit's potential to emit.
- (e) 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 §B(3)(b) of this regulation, for other

existing emissions units in accordance with the procedures contained in B(3)(c) of this regulation, and for a new emissions unit, in accordance with the procedures contained in B(3)(d) of this regulation.

- (f) In General
- (i) The average rate of emissions shall include fugitive emissions to the extent quantifiable, and emissions associated with start-ups, shutdowns, and malfunctions.
- (ii) The average rate shall be adjusted downward to exclude any noncompliant emissions that occurred while the source was operating above any emissions limitation that was legally enforceable during the consecutive 24-month period. However, if an emission limitation is part of a proposed or promulgated maximum achievable control technology standard under 40 CFR Part 63, the baseline actual emissions need only be adjusted if credit for the emissions reductions was taken in an attainment demonstration or maintenance plan.
- (iii) When a project involves multiple emissions units or different regulated NSR pollutants, only one consecutive 24-month period shall be used to determine the baseline actual emissions for the emissions units being changed.
- (iv) The average rate may not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions and adjusting the amount if required.
- (4) "Begin actual construction" means, in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. These activities include 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 definition refers to those on-site activities other than preparatory activities which mark the initiation of the change.
- (5) Best Available Control Technology.
- (a) "Best available control technology" 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 Department, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for that 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 the pollutant.
- (b) Application of best available control technology may not result in emissions of any pollutant which would exceed the emissions allowed by an applicable standard under 40 CFR 60 and 61.
- (c) If the Department 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 of these, may be prescribed instead to satisfy the requirement for the application of best available control technology. This standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of the design, equipment, work practice, or operation, and shall provide for compliance by means which achieve equivalent results.
- (6) Building, Structure, Facility, or Installation.
- (a) "Building, structure, facility, or installation" means all of the pollutant-emitting activities that belong to the same industrial group 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.
- (b) Pollutant-emitting activities are considered as part of the same industrial group if they belong to the same "Major Group" (that is, have the same two-digit code as described in the Standard Industrial Classification Manual (SIC) prepared by the federal Office of Management and Budget (OMB) and amended in 1987).
- (7) "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 on-site construction of the source to be completed within a reasonable time.
- (8) "Construction" means any physical change or change in the method of operation, including fabrication, erection, installation, demolition, or modification of an emissions unit, which would result in a change in emissions.
- (9) "Electric utility steam generating unit" means any steam electric generating unit that is constructed for the purpose of supplying more than 1/3 of its potential electric output capacity and more than 25 megawatts electric 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.
- (10) Emissions Reduction Credit (ERC).
- (a) "Emissions reduction credit (ERC)" means a permanent, enforceable, quantifiable reduction in actual emissions,

occurring on or after January 1, 2003, which is surplus to all applicable State and federally enforceable requirements to be used to offset emission increases.

- (b) "Emissions reduction credit (ERC)" does not constitute a security or other form of property.
- (11) "Emissions unit" means any part of a stationary source which emits, or would have the potential to emit, a regulated NSR pollutant.
- (12) "Existing emissions unit" means an emissions unit that does not meet the requirement in $\S B(20)$ of this regulation.
- (13) "Federally enforceable" means all limitations and conditions which are enforceable by the U.S. Environmental Protection Agency (EPA), including those requirements developed pursuant to 40 CFR 60 and 61, requirements within the SIP, 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 a program that is approved by EPA or that is incorporated into the Maryland SIP and expressly requires adherence to any permit issued under the program.
- (14) "Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- (14-1) "Interprecursor trading" means that the use of emission reduction credits for any ozone precursor, NO_x and VOCs, may be used to offset increased emissions of ozone precursors at a specified ratio, as determined in COMAR 26.11.17.04F.
- (15) Lowest Achievable Emission Rate.
- (a) "Lowest achievable emission rate" means, for any emissions unit, the more stringent rate of emissions based on the following:
- (i) The most stringent emissions limitation which is contained in the implementation plan of any state for the class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that these limitations are not achievable; or
- (ii) The most stringent emissions limitation which is achieved in practice by the class or category of stationary sources, with this limitation, when applied to a modification, meaning the lowest achievable emissions rate for the new or modified emissions units within the stationary source.
- (b) The application of this definition does not permit a proposed new or modified emissions unit to emit any pollutant in excess of the amount allowable under 40 CFR 60.
- (16) Major Modification.
- (a) "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 and a significant net emissions increase of any regulated NSR pollutant.
- (b) Any significant emissions increase from any emissions unit or net emissions increase at a major stationary source that is considered significant for volatile organic compounds or NO_x is considered significant for ozone.
- (c) A physical change in or a change in the method of operation does not include:
- (i) Routine maintenance, repair, and replacement;
- (ii) Use of an alternative fuel or raw material by reason of an order under §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;
- (iii) Use of an alternative fuel by reason of an order or rule under §125 of the federal Clean Air Act;
- (iv) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
- (v) Use of an alternative fuel or raw material by a stationary source which the source was capable of accommodating before December 21, 1976, unless the change would be prohibited under any federally enforceable permit condition which was established after December 21, 1976, pursuant to 40 CFR §52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR §51.166, or the source is approved to use under any federally enforceable permit issued under this subtitle;
- (vi) An increase in the hours of operation or in the production rate, unless such change is prohibited under any federally enforceable permit condition; or
- (vii) Any change in ownership.
- (d) This definition does not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements for a PAL.
- (17) Major Stationary Source.
- (a) "Major stationary source" means any stationary source of air pollution which emits or has the potential to emit 100 tons or more of any regulated NSR pollutant, except that lower emissions thresholds apply as follows:
- (i) 25 tons or more per year of VOC or NO_x for sources located in Baltimore City or Anne Arundel, Baltimore,

Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, or Prince George's counties;

- (ii) 50 tons or more per year of VOC for sources located in Allegany, Caroline, Dorchester, Garrett, Kent, Queen Anne's, St. Mary's, Somerset, Talbot, Washington, Wicomico, or Worcester counties;
- (iii) 50 tons or more 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; and
- (iv) 70 tons or more per year of PM₁₀ in any serious nonattainment area for PM₁₀.
- (b) "Major stationary source" also means any physical change that would occur at a stationary source not qualifying under §B(17)(a) of this regulation as a major stationary source, if the change would constitute a major stationary source by itself.
- (c) A major stationary source that is major for volatile organic compounds or NO_x is considered major for ozone.
- (d) In determining if a source is a major stationary source, fugitive emissions shall be included if the source belongs to one of the categories of stationary sources listed in 40 CFR §51.165(a)(1)(iv)(C).
- (18) "Necessary preconstruction approvals or permits" means those permits or approvals required under this subtitle.
- (19) Net Emissions Increase.
- (a) "Net emissions increase" means, with respect to a regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:
- (i) Any increase in emissions from a particular physical change or change in the method of operation at a stationary source; and
- (ii) Any other increases and decreases in actual emissions of the particular pollutant that are contemporaneous with the particular change and are otherwise creditable.
- (b) Baseline actual emissions for calculating increases and decreases under this definition shall be determined as provided in §B(3) of this regulation, except that §B(3)(c) does not apply.
- (c) An increase or decrease in actual emissions of a particular pollutant is contemporaneous with the increase from the particular change if it occurs within the 5-year period preceding the date on which a complete permit application for the change is submitted and before the date that the increase from the particular change occurs.
- (d) An increase or decrease in actual emissions is creditable only if the Department has not relied on it in issuing a permit for the source and the permit is in effect when the increase in actual emissions from the particular change occurs.
- (e) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
- (f) A decrease in actual emissions is creditable only to the extent that:
- (i) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;
- (ii) The decrease is enforceable in a practicable manner at and after the time that the actual construction on the particular change begins;
- (iii) The Department has not previously relied on the decrease in issuing any permit under this chapter or in demonstrating attainment or reasonable further progress in the SIP and it is not required by any other State requirement; and
- (iv) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.
- (g) An increase that results from a physical change 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.
- (20) "New emissions unit" means an emissions unit which is or will be newly constructed and which has existed for less than 2 years from the date the emissions unit first operated.
- (21) Potential to Emit.
- (a) "Potential to emit" means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design.
- (b) 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.
- (22) "Project" means a physical change in, or change in the method of operation of, an existing major stationary source.
- (23) Projected Actual Emissions.
- (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 following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if:

- (i) The project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR pollutant; and
- (ii) 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 before beginning actual construction, the owner or operator of the major stationary source shall:
- (i) Consider all relevant information including historical operational data, the company's own representations, the company's expected business activity, the company's highest projections of business activity, the company's filings with the State or EPA, and compliance plans under the approved plan;
- (ii) Include fugitive emissions to the extent quantifiable and emissions associated with start-ups, shutdowns, and malfunctions; and
- (iii) Exclude, in calculating any increase in emissions that results from the particular project, that portion of the emissions 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 and that are also unrelated to the particular project, including any increased utilization due to product demand growth.
- (c) In lieu of using the method set out in §B(23)(b) of this definition, a person may elect to use the emissions unit's potential to emit, in tons per year.
- (24) "Regulated NSR pollutant" means any pollutant for which a national ambient air quality standard has been promulgated and any pollutant that is a constituent or precursor of the pollutant for which there is an ambient air quality standard, provided that the constituent or precursor may only be regulated under this chapter as part of regulation of the pollutant. After January 1, 2011, PM_{2.5} and PM₁₀ emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperature. These emissions shall be accounted for in applicability determinations and in establishing emission limitation in permits. Compliance with PM_{2.5}and PM₁₀ emission limitations shall be as described in CFR 51.165(a)(1)(xxxvii)(D). Precursors identified for the purpose of NSR in Maryland are:
- (a) Nitrogen oxides and volatile organic compounds are precursors of ozone in all ozone nonattainment areas.
- (b) Nitrogen oxides and sulfur dioxide are precursors of $PM_{2.5}$ in all $PM_{2.5}$ nonattainment areas.
- (25) "Replacement unit" means an emissions unit that meets all of the following criteria:
- (a) No creditable emission reductions are generated by shutting down the existing emissions unit that is replaced;
- (b) The emissions unit is a reconstructed unit within the meaning of 40 CFR §60.15(b)(1) or the emissions unit completely takes the place of an existing emissions unit;
- (c) The emissions unit is identical to or functionally equivalent to the replaced emissions unit;
- (d) The replaced unit does not alter the basic design parameters of the existing emissions unit; and
- (e) The replaced emissions unit is permanently removed from the major stationary source or otherwise permanently disabled or barred from operation by a permit that is enforceable as a practicable matter.
- (26) "Significant" means, in reference to a net emissions increase, a significant emissions increase or the potential of a source to emit a regulated NSR pollutant, or a rate of emissions that would equal or exceed any of the following rates:
- (a) Volatile organic compounds or nitrogen oxides: 25 tons per year (tpy) in Baltimore City or Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, and Prince George's counties;
- (b) Volatile organic compounds or nitrogen oxides: 40 tpy in Allegany, Caroline, Dorchester, Garrett, Kent, Queen Anne's, St. Mary's, Somerset, Talbot, Washington, Wicomico, and Worcester counties.
- (c) $PM_{2.5}$ emissions: 10 tpy;
- (d) Sulfur dioxide: 40 tpy;
- (e) Lead: 0.6 tpy;
- (f) PM₁₀: 15 tpy; and
- (g) Carbon monoxide: 100 tpy.
- (27) "Stationary source" means any building, structure, facility, or installation which emits or may emit any regulated NSR pollutant subject to this chapter.

.02 Applicability.

- A. This chapter applies Statewide, unless specified otherwise throughout this Chapter, to:
- (1) New major stationary sources and major modifications that are major for VOC or NO_x;

- (2) New major stationary sources and major modifications that are major for PM_{2.5} or its precursors and are located in Baltimore City or Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, Montgomery, Prince George's, and Washington counties;
- (3) Any new major stationary source or major modification at a major stationary source that is major for a pollutant for which the area is designated nonattainment under §107(d)(1)(A)(i) of the Clean Air Act (42 U.S.C. §7407); and
- (4) Major stationary sources and major modifications that are major for VOC or NO_x located in the Ozone Transport Region.
- B. A person may apply for and obtain a permit to construct a new major stationary source or a major modification at an existing major stationary source after meeting the conditions of A(1) of this regulation if all of the provisions in this chapter are met.
- C. Major stationary sources and major modifications, whether located in attainment or nonattainment areas, may also be subject to the Prevention of Significant Deterioration requirements in COMAR 26.11.06.14.
- D. A person may not circumvent the intent of this chapter through incremental construction or modification or through staged construction or modification.
- E. This chapter applies to any source for which:
- (1) The Department did not receive, by November 15, 1992, an application which the Department determines is complete for all necessary permits to construct and approvals required by this subtitle; and
- (2) A completed application, for all necessary permits to construct and approvals required by this subtitle, was received before November 15, 1992, but for which the applicant did not, as determined by the Department, diligently pursue those permits and approvals after November 15, 1992.
- F. Major Modification.
- (1) A project is a major modification for a regulated NSR pollutant if it causes a significant emissions increase and a significant net emissions increase. 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.
- (2) Applicability Tests.
- (a) Actual-to-Projected-Actual Applicability Test for Projects That Involve Only 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 and the baseline actual emissions, for each existing emissions unit, equals or exceeds the significant amount for that pollutant.
- (b) Actual-to-Potential Test for Projects That Involve Only Construction of a New Emissions Unit or Units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit from each new emissions unit following completion of the project and the baseline actual emissions of these units before the project, equals or exceeds the significant amount for that pollutant.
- (c) 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 F(2)(a) and (b) of this regulation, as applicable, with respect to each emissions unit, for each type of emissions unit, equals or exceeds the significant amount for that pollutant.
- G. At the time when a particular stationary source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforcement limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this chapter apply to the source or modification as though construction had not yet commenced on the source or modification.
- H. Any major stationary source with a PAL for a regulated NSR pollutant shall comply with the requirements of Regulations .07—.09 of this chapter.
- I. Preconstruction Permit Program In Attainment Areas.
- (1) The preconstruction permit program requirements also apply to any proposed major stationary source and to any major modification to the source in an area designated as attainment or unclassifiable for any National Ambient Air Quality Standard (NAAQS) pursuant to §107 of the Clean Air Act (42 U.S.C. 7407) when it would cause or contribute to a violation of a NAAQS.
- (2) A major source or major modification is considered to cause or contribute to a violation of a NAAQS when the 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:

			/4
Avera	ging	Time	(hours)

SO_2	$1.0~\mu g/m^3$	$5.0~\mu g/m^3$		$25\;\mu g/m^3$	
PM_{10}	$1.0~\mu g/m^3$	$5.0~\mu\text{g/m}^3$			
NO_2	$1.0~\mu g/m^3$				
CO			0.5mg/m^3		2.0 mg/m^3

(3) A proposed major source or major modification subject to §I(2) of this regulation may 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 NAAQS.

.03 General Conditions.

- A. A person who proposes to construct or modify an emissions unit subject to this chapter may not commence construction of the emissions unit without first obtaining all permits and approvals required under this subtitle.
- B. The Department shall deny a permit or approval to a person who proposes to construct a new major stationary source or major modification to a major stationary source unless the following conditions are met:
- (1) The applicant certifies that all existing major stationary sources owned or operated by the applicant, or any entity controlling, controlled by, or under common control with the applicant, in the State are in compliance with all applicable emission limitations or are in compliance with an approved federally enforceable plan for compliance;
- (2) The proposed new major stationary source or major modification will meet an emission limitation which specifies the lowest achievable emissions rate;
- (3) More than equivalent emission offsets from existing sources in the area impacted by the proposed new major stationary source or major modification (whether or not under the same ownership) are required so that there will be reasonable further progress toward attainment of the applicable standard; for sources locating in the Ozone Transport Region, the offset ratios for VOC and NO_x shall equal or exceed the following:
- (a) 1.3 to 1 for sources of VOC or NO_x in Baltimore City, or Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, or Prince George's counties; and
- (b) 1.15 to 1 for sources of VOC or NO_x in Allegany, Caroline, Dorchester, Garrett, Kent, Queen Anne's, Somerset, St. Mary's, Talbot, Washington, Wicomico, or Worcester counties;
- (4) The emission offsets will provide a positive net air quality benefit in the affected area, although for sources of VOC or NO_x , atmospheric simulation modeling is not necessary for VOC and NO_x and fulfillment of $\S B(3)$ of this regulation is considered adequate to meet this condition;
- (5) The emission offsets for the major source or major modification shall be federally enforceable before construction is commenced:
- (6) An analysis of alternative sites, sizes, production processes, and environmental control techniques for a proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification; and
- (7) The total tonnage of increased emissions, in tons per year, resulting from a major modification that is to be offset is the sum of the difference between the allowable emissions after the modification and the actual emissions before the modification for each emissions unit.
- C. For phased construction projects, the determination of the lowest achievable emission rate shall be reviewed and modified, as appropriate, at the latest reasonable time which occurs not later than 18 months before commencement of construction of each independent phase of the project. At that time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of the lowest achievable emission rate for the source.
- D. Approval to construct does not relieve an owner or operator of the responsibility to comply fully with any other requirement under local, State, or federal law.
- E. If an existing emissions unit at a major stationary source is modified and causes an increase in emissions that may be significant and the modification is not part of a major modification at the source:
- (1) A permit is required in accordance with COMAR 26.11.02 and the Department will establish permit conditions that prevent the emissions from becoming significant; and
- (2) The source is also subject to the annual reporting requirements in COMAR 26.11.01.05-1 that require a report of emissions for each emissions unit for each year.
- F. If the emissions from the modified emissions unit become significant, the provisions in this chapter apply

.04 Creating Emission Reduction Credits (ERCs).

- A. An emissions unit that emits NO_x or VOC is eligible to create an ERC if:
- (1) The unit was in operation any time during calendar year 2002 or later, and emissions from the unit were included in the current inventory for the State Implementation Plan for the pollutant;
- (2) The Department did not rely on the emission reduction in issuing a permit under an approved regulation; and
- (3) The Department has not relied on the emission reduction in demonstrating attainment or reasonable further progress.
- B. An ERC may be created by:
- (1) Controlling emissions below the emission levels required by applicable State and federal requirements and the State Implementation Plan through a federally enforceable permit limit;
- (2) Curtailing operations and reducing emissions through a federally enforceable permit condition; or
- (3) Permanently discontinuing the operation of one or more emissions units at a source.
- C. Quantification and use of ERCs.
- (1) ERCs shall be based on a reduction of the source's actual emissions as that term is defined in Regulation .01 of this chapter.
- (2) The Department shall credit an emissions unit with emission reductions achieved by shutting down an existing emissions unit or permanently curtailing production or operating hours if the reductions are permanent, quantifiable, and federally enforceable. In addition, the shutdown or curtailment is creditable only if it occurred on or after January 1, 2003, and if the reduction is not necessary to meet any other State or federal requirement.
- (3) Creditable emission reductions that qualify as ERCs may be used to satisfy the requirement to provide offsets under this chapter and shall total at least 5 tons per year of VOC or NO_x .
- (4) If a new regulation is adopted that applies to an emissions unit that created ERCs, the ERCs shall be reduced by an amount equal to the reduction that would have been required before the ERCs were created.
- (5) Emission reduction credits shall be enforceable by the Department and the EPA and shall be obtained by the date the new emissions unit commences construction.
- (6) The reduction of emissions from an emissions unit that provides emission reduction credits shall occur before the date when the new or modified emissions unit becomes operational.
- D. Location of ERCs.
- (1) Generally, ERCs are acceptable if obtained from within the same area as the new or modified emissions unit. The Department may allow the owner or operator to obtain VOC or NO_x emission reductions from other areas if:
- (a) The other area has an equal or higher nonattainment classification than the area in which the emissions unit is located; and
- (b) Emissions of the particular pollutant from the other area have been demonstrated to contribute to a violation of the National Ambient Air Quality Standard in the area in which the new emissions unit is located.
- (2) The Department shall give preference to ERCs from emissions units located as close to the proposed emissions unit site as possible.
- E. Exclusions and Limitations.
- (1) ERCs shall expire as follows:
- (a) For emissions units discontinuing operation before January 1, 2002, the ERCs expire January 1, 2012; and
- (b) For emissions units discontinuing operation on or after January 1, 2002, the ERCs expire January 1, 2012, or 10 years after the discontinued operation, whichever is later.
- (2) The expiration dates in §E(1) of this regulation do not apply if the ERCs are committed to a new or modified emissions unit through a permit to construct that has an enforceable contract to transfer the ERCs to the owner or operator of a new or modified emissions unit.
- (3) An ERC may not be used to meet BACT, LAER, NSPS, RACT, allowance based programs, or any other emission limitation under the Clean Air Act.
- F. Interprecursor Trading.
- (1) Provided that the other requirements for such offsets are satisfied, the offset requirements of COMAR 26.11.17.03B(3) for emissions of NO_X and VOC may be satisfied through interprecursor trading by offsetting reductions of emissions of either NO_X or VOC, by submitting to the Department and EPA for written approval the following information:
- (a) A description of the EPA approved air quality model(s) used to establish the appropriate ratio for the precursor substitution;

- (b) A proposed ratio, not to be less than the ratio required under COMAR 26.11.17.03B(3), for the precursor substitution and accompanying calculations; and
- (c) A technical demonstration substantiating that the ratio achieves an equivalent or greater air quality benefit for ozone in the nonattainment area than what would be achieved without interprecursor trading.
- (2) Approvals of precursor substitutions shall be made by the Department and EPA on a case-by-case basis and are permit specific.

.05 Information of Emission Reductions and Certification.

- A. A person who creates an emission reduction for use as an ERC shall submit the following information to the Department:
- (1) A description of the equipment or process that resulted in a reduction in actual emissions, including any air pollution control devices serving that equipment or process;
- (2) The actual emissions occurring when the equipment or process operated in compliance with all applicable requirements during the selected 24-month period;
- (3) Identification of all regulations or other requirements that apply to the equipment or process and a demonstration of compliance with those requirements;
- (4) Identification of the method used to reduce actual emissions and calculations showing the emission reductions achieved; and
- (5) The date or dates on which the reduction in emissions occurred.
- B. ERCs may not be used until they are certified.
- C. ERCs shall be certified as follows:
- (1) Information on emission reductions submitted by the person who owns or operates the emissions units creating the ERCs shall be verified by the Department based on review of information in the Department's files including the source's emission certification reports, stack tests, inspection reports, and other information relating to emissions and compliance with applicable requirements;
- (2) A site inspection may be made to verify the shutdown or other method used to create the ERCs.

.06 Transferring Emission Reduction Credits.

- A. An ERC may be transferred to the control of another person after it is certified and becomes federally enforceable.
- B. A person may not use an ERC in a manner that causes a violation of any applicable federal or State emission standard or requirement.
- C. ERCs may not be transferred to a third party or used for any other purpose except as offsets through a federally enforceable permit to construct.
- D. A source located in Maryland may use an ERC created by a source located in another State if:
- (1) The emission reduction is certified by the state in which it is created;
- (2) The conditions of the transfer are enforceable by the other state and the EPA; and
- (3) All of the requirements in this chapter are met

.07 Plantwide Applicability Limit (PAL) – General.

- A. Applicability.
- (1) The Department may approve the use of a PAL for any existing major stationary source if the requirements in this regulation are met.
- (2) Any physical change 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 of this chapter and complies with the PAL permit if:
- (a) It is not a major modification for the PAL pollutant;
- (b) It does not have to be approved through Regulations .01—.03 of this chapter; and
- (c) It is not subject to Regulation .02G of this chapter.
- (3) Except as provided under §A(2) of this regulation, a major stationary source shall continue to comply with all

applicable federal and State requirements, emission limitations, and work practice requirements that were established before the effective date of the PAL.

- B. Definitions. In Regulations .07—.09 of this chapter, the following terms have the meanings indicated:
- (1) "Actual PAL" means, for a major stationary source, a PAL based on the baseline actual emissions of all emissions units at the source that emit or have the potential to emit the PAL pollutant.
- (2) "Allowable emissions" has the meaning stated in Regulation .01B(2) of this chapter, except that this definition is modified as follows:
- (a) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practicable matter on an emissions unit's potential to emit;
- (b) An emissions unit's potential to emit shall be determined using the definition in Regulation .01B(21) of this chapter, except that the words "or enforceable as a practicable matter" shall be added after "federally enforceable".
- (3) "Continuous emissions monitoring system (CEMs)" means all of the equipment that may be required to meet the data acquisition and availability requirements of this regulation, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.
- (4) "Continuous emissions rate monitoring system (CERMs)" means the total equipment required for determining and recording the pollutant mass emissions rate (in terms of mass per unit of time).
- (5) "Continuous parameter monitoring system (CPMs)" means all of the equipment necessary to meet the data acquisition and availability requirements of this regulation 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, oxygen or carbon dioxide concentrations), and to record average operational parameter values on a continuous basis.
- (6) "Major emissions unit" means an emissions unit that emits or has the potential to emit:
- (a) 100 tons per year or more of the PAL pollutant in an attainment area; or
- (b) The PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant.
- (7) "PAL effective date" means the date of issuance of a PAL permit or a revised PAL permit, except that the PAL effective date for an increased PAL is the date an emissions unit which is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (8) "PAL effective period" means the period beginning with the PAL effective date and ending 5 years later.
- (9) "PAL major modification" means any physical change in or changes 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.
- (10) "PAL permit" means the permit issued by the Department that establishes a PAL for a major stationary source.
- (11) "PAL pollutant" means the pollutant for which the PAL is established.
- (12) "Plantwide applicability limit (PAL)" means an emissions limitation, expressed in tons per year, for a pollutant at a major stationary source, that is enforceable as a practicable matter and established source-wide according to Regulation .08B of this chapter.
- (13) "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, oxygen or carbon dioxide concentrations), and calculate and record the mass emissions rate (for example, pounds per hour) on a continuous basis.
- (14) "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 for the PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit.
- (15) "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 Regulation .01B(26) of this chapter or in the Clean Air Act, whichever is lower.

.08 Plantwide Applicability Limit (PAL) – Permits.

A. Permit Application.

- (1) The owner or operator of a major stationary source may apply for a PAL permit by submitting an application to the Department that includes:
- (a) A list of all emissions units at the source designated as small, major, or significant based on their potential to emit;
- (b) Applicable State and federal requirements for each emissions unit;
- (c) The baseline actual emissions for each emissions unit with supporting calculations and documentation including

emissions associated with startup, shutdown, and malfunctions; and

- (d) The method to be used to monitor each emissions unit.
- (2) The source shall include in the application calculations and procedures that are to be used to convert emissions data to monthly emissions to enable calculation of 12-month rolling averages.

B. PAL Level.

- (1) The PAL level for a major stationary source shall be established as the sum of the baseline actual emissions 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 Regulation .01B of this chapter or under the Clean Air Act, whichever is lower.
- (2) When establishing the actual PAL levels for a PAL pollutant, only one consecutive 24-month period shall 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.
- (3) Emissions associated with units that were permanently shut down after the 24-month period shall be subtracted from the PAL level. Emissions from units on which actual construction began after the 24-month period shall be added to the PAL level in an amount equal to the potential to emit of the units.
- (4) The Department shall specify a reduced PAL level, in tons per year, in the PAL permit to become effective on the future compliance date of any applicable federal or state regulatory requirement that the Department is aware of before issuance of the PAL permit.
- C. Issuance of a PAL Permit.
- (1) If the Department approves an application for a PAL permit, the PAL permit shall be issued for a period not to exceed 5 years from the PAL effective date.
- (2) The PAL permit shall include:
- (a) The PAL pollutant and the applicable source-wide emissions limitation in tons per year;
- (b) The effective date and expiration date of the PAL;
- (c) Specification that if a major stationary source owner or operator applies to renew a PAL in accordance with §G of this regulation before the end of the PAL effective period, then the PAL does not expire at the end of the PAL effective period but remains in effect until a revised PAL permit is issued by the Department;
- (d) A requirement that emissions calculations for compliance purposes include emissions from startup, shutdowns, and malfunctions;
- (e) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of §E of this regulation;
- (f) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month;
- (g) A requirement that the major stationary source owner or operator monitor all emissions units and retain records, in accordance with the provisions of Regulation .09A of this chapter, which may be retained in an electronic format:
- (h) A requirement to submit the reports required under Regulation .09A of this chapter by the required deadlines;
- (i) Any other requirement that the Department determines is necessary to implement and enforce the PAL.
- D. General Requirements.
- (1) 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.
- (2) The PAL shall include emissions of only one pollutant, including quantifiable fugitive emissions of that pollutant from all emissions units.
- (3) 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. 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.
- (4) A person who receives a PAL permit from the Department is subject to:
- (a) All applicable existing State and federal requirements; and
- (b) Any future State or federal requirements that apply to an emissions unit under an approved PAL.
- (5) During the PAL effective period, emission reductions of a PAL pollutant may not be creditable for use as ERCs unless the level of the PAL is reduced by the amount of the reduction and the reduction would be creditable in the absence of the PAL.
- (6) PALs for existing major stationary sources shall be established, renewed, or increased through a public

participation procedure that is consistent with 40 CFR §§51.160 and 51.161. The Department shall 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. All comments received by the Department shall be addressed before the Department takes final action on the permit.

- E. Expiration of a PAL.
- (1) Any PAL that is not renewed according to §G of this regulation shall expire at the end of the PAL effective period.
- (2) Within the time frame specified for PAL renewals, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if this distribution is more appropriate, as determined by the Department) 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 any applicable requirement that became effective during the PAL effective period, as required under §G of this regulation, the distribution shall be made as if the PAL had been adjusted.
- (3) The Department 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 Department determines is appropriate.
- (4) Each emissions unit shall comply with the allowable emission limitation on a 12-month rolling basis. The Department may approve the use of monitoring systems (for example, source testing or emission factors) other than CEMs, CERMs, PEMs, or CPMs to demonstrate compliance with the allowable emission limitation.
- (5) Until the Department issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.
- (6) Any physical change or change in the method of operation at the major stationary source is subject to the nonattainment major NSR requirements if the change meets the definition of a major modification.
- (7) 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 before the PAL effective period, except for those emission limitations that had been established pursuant to Regulation .02G of this chapter but were eliminated by the PAL in accordance with Regulation .07A(2)(c) of this chapter.
- F. Reopening a PAL Permit.
- (1) During the PAL effective period, the permit may be reopened to:
- (a) Correct any errors in setting the PAL or to reflect a more accurate determination of emissions used to establish the PAL;
- (b) Reduce the PAL if the source creates emission reduction credits; or
- (c) Reflect a necessary increase in the PAL level.
- (2) The Department may reopen the PAL to:
- (a) Reflect a new federal or State requirement that would apply to an emissions unit after the effective date or for other reasons determined by the Department;
- (b) Reduce the PAL consistent with any other requirement that is enforceable as a practicable matter, and that the Department may impose on the major stationary source; or
- (c) Reduce the PAL if the Department determines that a reduction is necessary to avoid causing or contributing to:
- (i) A NAAOS or PSD increment violation; or
- (ii) 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.
- (3) Any adjustment to the PAL shall be made through the public participation procedures required when the PAL was first established.
- G. Renewal of a PAL.
- (1) A person who requests renewal of a PAL permit shall apply for the renewal not later than 6 months before the existing PAL permit expiration date. If a person submits a complete application to renew the PAL within that time period, the PAL shall continue to be effective until a renewed permit is issued.
- (2) The application to renew the PAL shall contain the following:
- (a) The information required in §A of this regulation;
- (b) A proposed PAL level;
- (c) The sum of potential to emit of all emissions units under the PAL and supporting documentation; and
- (d) Any other information the owner or operator wishes the Department to consider in determining the appropriate level for renewing the PAL.
- (3) Adjustments at Renewal.
- (a) If the sum of the emissions from each emissions unit within the PAL is 80 percent or less than the PAL, a

renewed PAL permit may be issued at the same level.

- (b) The Department 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 Department in its written rationale.
- (c) If the potential to emit of the major stationary source is less than the PAL, the Department shall adjust the PAL to a level not greater than the potential to emit of the source, and the Department may not approve a renewed PAL level higher than the current PAL unless the major stationary source has complied with the provisions of Regulation .09A of this chapter.
- (4) If a compliance date for a State or federal requirement that applies to the PAL source occurs during the PAL effective period, and if the Department has not already adjusted for this requirement, that PAL shall be adjusted at the time of PAL renewal or Title V permit renewal, whichever occurs first.
- (5) The Department shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During the public review, any person may propose a PAL level for the source for consideration by the Department.
- H. Increasing a PAL.
- (1) Requirements for Increasing a PAL.
- (a) A PAL may be increased during the PAL effective period if the requirements of this subsection are met.
- (b) 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. The application shall identify the emissions units contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.
- (c) 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 units, 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 this case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit shall currently comply.
- (d) The owner or operator shall obtain a major NSR permit for all emissions units identified in this subsection regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions units shall comply with any emissions requirements resulting from the nonattainment major NSR program processed (for example, LAER), even though they have also become subject to the PAL or continue to be subject to the PAL.
- (e) The PAL permit shall require that the increased PAL level 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.
- (2) The Department 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 H(1)(c) of this regulation), plus the sum of the baseline actual emissions of the small emissions units.
- (3) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of \$D(6) of this regulation.

.09 Plantwide Applicability Limits (PAL) – Monitoring, Recordkeeping, and Reporting

A. Monitoring and Record Keeping Requirements.

- (1) Each PAL permit shall contain enforceable requirements for the monitoring system that accurately determine plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit shall be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by the system shall meet the minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.
- (2) The PAL monitoring system shall employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in §A(5) of this regulation and shall be approved by the Department.
- (3) Notwithstanding A(2) of this regulation, an alternative monitoring approach may be used that meets the requirements of A(1) of this regulation if approved by the Department.

- (4) Failure to use a monitoring system that meets the requirements of this section renders the PAL invalid.
- (5) The following are acceptable general monitoring approaches when conducted in accordance with the minimum performance requirements in A(6)—(12) of this regulation:
- (a) Mass balance calculations for activities using coatings or solvents;
- (b) CEMs;
- (c) CPMs or PEMs; and
- (d) Emission factors.
- (6) Mass Balance Calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coatings 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 that material, the owner or operator shall use the highest value of the range to calculate the PAL pollutant emissions unless the Department determines there is site specific data or a site specific monitoring program to support another content within the range.
- (7) CEMs. An owner or operator using CEMs to monitor PAL pollutant emissions shall meet the following requirements:
- (a) CEMs shall comply with the applicable performance specifications found in 40 CFR Part 60, Appendix B; and
- (b) CEMs shall sample, analyze, and record data at least every 15 minutes while the emissions unit is operating.
- (8) 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 shall be based on current site specific data demonstrating a correlation between the monitored parameters and PAL pollutant emissions across the range of operation of the emissions unit; and
- (b) Each CPMs or PEMs shall sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Department, while the emissions unit is operating.
- (9) 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 factor 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 Department determines that testing is not required.
- (10) A source owner or operator shall 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 this period is specified in the PAL permit.
- (11) Notwithstanding the requirements in A(6)—(10) of this regulation, when an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameters and the PAL pollutant emissions rate at all operating points of the emissions unit, the Department shall, at the time of permit issuance:
- (a) Establish default values for determining compliance with the PAL based on the highest potential emission reasonably estimated at the operating point; or
- (b) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameters and the PAL pollutant emissions is a violation of the PAL.
- (12) Revalidation. All data used to establish the PAL pollutant shall be revalidated through performance testing or other scientifically valid means approved by the Department. This testing shall occur at least once every 5 years after issuance of the PAL.
- (13) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of Regulations .07—.09 of this chapter and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions for 5 years from the date of that record.
- (14) 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 application 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.
- B. Reporting Requirements.

- (1) A semiannual report shall be submitted to the Department within 30 days of the end of each reporting period, beginning 6 months after the PAL effective date. This report shall contain the following information:
- (a) The identification of the owner and operator and the permit number;
- (b) Total annual emissions in tons per year based on a 12-month rolling total for each month in the reporting period recorded pursuant to A(13) of this regulation;
- (c) All data relied upon including 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 deviation or monitoring malfunction, other than the time associated with zero and span calibration checks, and any corrective actions 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 system continued to operate and the calculation of the emissions of the pollutant or the number determined by methods included in the permit; and
- (g) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.
- (2) The major stationary source owner or operator shall promptly submit reports of any deviation or exceedances of the PAL requirements including periods when no monitoring is available. A report submitted pursuant to COMAR 26.11.03.06C(7)(a)(i) shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed in the source's Title V permit. The report shall contain the following information:
- (a) The identification of the owner or operator and the permit number;
- (b) The PAL requirement that experienced the deviation or that was exceeded;
- (c) The emissions resulting from the deviation or the exceedances; and
- (d) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.
- (3) The owner or operator shall submit to the reviewing authority the results of any revalidation test or method within 3 months after completion of the test method.