

**Title 25—ENVIRONMENTAL PROTECTION**  
**ENVIRONMENTAL QUALITY BOARD**  
**[25 PA CODE CHS. 121 and 127]**  
**NEW SOURCE REVIEW**

The Environmental Quality Board (Board) amends Chapters 121 and 127 (relating to general provisions; and construction, modification, reactivation, and operation of sources) to read as set forth in Annex A.

This notice is given under Board order at its meeting of \_\_\_\_\_, 2011.

**A. Effective Date**

This final-form rulemaking is effective upon publication in the *Pennsylvania Bulletin*.

This final-form rulemaking will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the Pennsylvania State Implementation Plan (SIP) upon publication.

**B. Contact Persons**

For further information, contact Krishnan Ramamurthy, Chief, Division of Permits, Bureau of Air Quality, 12<sup>th</sup> Floor, Rachel Carson State Office Building, P.O. Box 8468, Harrisburg, PA 17105-8468, (717) 783-9476; or Robert “Bo” Reiley, Assistant Counsel, Bureau of Regulatory Counsel, 9th floor, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available electronically through the Department of Environmental Protection’s (Department) web site at [www.depweb.state.pa.us](http://www.depweb.state.pa.us) (Keyword: Public Participation).

**C. Statutory Authority**

This final-form rulemaking is being made under the authority of section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants to the Board the authority to adopt regulations for the prevention, control, reduction and abatement of air pollution.

**D. Background and Summary**

On July 18, 1997, the EPA revised the National Ambient Air Quality Standard (NAAQS) for particulate matter (PM) to add a new standard for fine particles, using fine particulates equal to and less than 2.5 micrometers in diameter (PM<sub>2.5</sub>) as the indicator. The EPA set the health-based (primary) and welfare-based (secondary) PM<sub>2.5</sub> annual standard at a level of 15 micrograms per cubic meter (µg/m<sup>3</sup>) and the 24-hour standard at a level of 65 µg/m<sup>3</sup> at 62 FR 38652. The health-based primary standard is designed to protect human health from elevated levels of PM<sub>2.5</sub>, which have been linked to premature mortality and other important health effects. The secondary standard is designed to protect against major environmental effects of PM<sub>2.5</sub> such as visibility impairment, soiling and materials damage. In December 2004, the EPA designated all or portions of the following counties in this Commonwealth as nonattainment areas for the 1997 fine particulate matter annual NAAQS: Allegheny (partial), Armstrong (partial), Beaver, Berks,

Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene (partial), Indiana (partial), Lancaster, Lawrence (partial), Lebanon, Montgomery, Philadelphia, Pittsburgh/Liberty-Clairton (partial), Washington, Westmoreland and York. See 70 FR 944 at 999 (January 5, 2005). No counties were designated nonattainment for the 1997 24-hour standard.

Subsequently, at 71 FR 61236, the EPA lowered the primary and secondary 24-hour NAAQS for PM<sub>2.5</sub> to 35 µg/m<sup>3</sup> from 65 µg/m<sup>3</sup> (October 17, 2006). The following counties or portions thereof have been designated by the EPA as nonattainment for the 2006 fine particulate matter 24-hour NAAQS: Allegheny (partial), Armstrong (partial), Beaver, Bucks, Butler, Cambria, Chester, Cumberland, Dauphin, Delaware, Greene (partial), Indiana (partial), Lancaster, Lawrence (partial), Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Pittsburgh/Liberty-Clairton (partial), Washington, Westmoreland and York. See 74 FR 58688 at 58758 (November 13, 2009).

On May 16, 2008, the EPA published its final rule for the “Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>)” at 73 FR 28321. This Federal regulation requires states with PM<sub>2.5</sub> nonattainment areas to submit revised nonattainment NSR programs to the EPA for SIP approval within 3 years from the date of publication of the final rule, or by May 16, 2011.

Scientific research has shown that various precursor pollutants participate in secondary particle formation and contribute significantly to ambient PM<sub>2.5</sub> concentrations, producing approximately half of the PM<sub>2.5</sub> concentration nationally. Precursor pollutants to particle formation include the following: sulfur dioxide (SO<sub>2</sub>); nitrogen oxides (NO<sub>x</sub>); volatile organic compounds (VOC); and ammonia. Given the complexity of PM formation processes, new information from the scientific community continues to emerge to improve our understanding of the relationship between sources of PM precursors and secondary particle formation. The final Federal rule requires that SO<sub>2</sub> be regulated as a PM<sub>2.5</sub> precursor; NO<sub>x</sub> is presumed regulated; VOC and ammonia are presumed not regulated. See 73 FR at 28325. This final State rulemaking is consistent with the Federal rule in how these pollutants are to be treated.

Section 173 of the Clean Air Act (CAA) (42 U.S.C.A. § 7503) subjects major stationary sources located in nonattainment areas to the NSR permit program, which the Commonwealth is responsible for implementing through its SIP. The NSR special permit requirements include emission offsets for proposed emission increases and a demonstration that the new source will comply with the “lowest achievable emission rate” (LAER) for each regulated pollutant.

The final-form rulemaking, which limits the emissions of PM<sub>2.5</sub> and precursors including SO<sub>2</sub> and NO<sub>x</sub> for new or modified major sources in nonattainment areas, amends the existing nonattainment NSR requirements in Chapter 127, Subchapter E (relating to new source review), to incorporate the EPA’s May 2008 requirements for PM<sub>2.5</sub> and precursor emissions. Clarifying amendments for Chapter 127 are also made in the final-form rulemaking.

The final-form rulemaking applies to construction of major stationary sources and major modifications at major stationary sources. A stationary source is a “major source” if its actual emissions or its potential to emit (PTE) for a specific pollutant equals or exceeds the major source threshold for that pollutant. The PM<sub>2.5</sub> threshold for new sources is 100 tons per year (TPY) of PM<sub>2.5</sub>. The PM<sub>2.5</sub> threshold for major modifications at existing sources is 10 TPY of PM<sub>2.5</sub>.

The final-form rulemaking assures that the citizens and environment of this Commonwealth will benefit from reduced particulate matter and precursor emissions from regulated sources. The health effects associated with exposure to elevated levels of PM<sub>2.5</sub> are significant. Epidemiological studies have shown a significant correlation between elevated PM<sub>2.5</sub> levels and premature mortality. Other important health effects associated with exposure to particle pollution include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work and restricted activity days), lung disease, decreased lung function, asthma attacks and certain cardiovascular problems. Individuals particularly sensitive to PM<sub>2.5</sub> exposure include older adults, people with heart and lung disease and children. Environmental effects of particle pollution include visibility impairment, soiling and materials damage. Attaining and maintaining levels of PM<sub>2.5</sub> below the health- and welfare-based NAAQS is important to reduce premature mortality and other health and environmental effects associated with PM<sub>2.5</sub> exposure. This control measure is reasonably necessary to attain and maintain the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS.

The owners and operators of new or modified major facilities will be affected by adoption of the final-form rulemaking. There are approximately 887 major facilities in this Commonwealth that may be subject to the existing NSR rules if major modifications to those facilities are proposed. The majority of those facilities affected by these regulatory changes are already subject to the existing NSR provisions in Chapter 127, Subchapter E, and also to the requirements of 40 CFR Part 51, Appendix S, regarding emission offset interpretative ruling. This final-form rulemaking will provide increased flexibility for the owners and operators of affected facilities by allowing exchanges of interpollutant offsets.

Under Section 4.2(b) of the APCA, 35 P.S. § 4004.2(b), control measures, in general, shall be no more stringent than those required under the CAA, unless the Board determines that those measures are reasonably necessary to achieve or maintain ambient air quality standards. The final-form regulation is more stringent than Federal regulations since it includes fugitive emissions for certain pollutants, including PM<sub>2.5</sub>, from all sources when determining whether a source is defined as a “major facility” under § 121.1.

The major facility definition was included in the final rulemaking published at 24 Pa.B. 443 (January 15, 1994). The 1994 final rulemaking was approved by the EPA as a revision to the SIP at 62 Fed. Reg. 64722 (December 9, 1997), and is codified in 40 CFR 52.2020, regarding identification of plan – Pennsylvania. The SIP-approved major facility provision includes fugitive emissions from all sources when determining the status of a major facility, rather than considering fugitives for just the 28 source categories listed in the Federal definition of the term “major stationary source” found at 40 CFR 51.165(a)(1)(iv)(A), regarding permit requirements.

Another area of difference between the existing EPA and Commonwealth nonattainment NSR programs relates to the treatment of projected actual emissions related to a project. Under the EPA’s approach owners or operators of a facility must track their projected actual emissions against the facility’s post-change emissions for 5 years following resumption of regular operations. The EPA presumes that any increases that occur after 5 years are not associated with the physical or operational changes. Under the Commonwealth’s approach specified in § 127.203a(a)(5)(iii)(A) of the NSR amendments promulgated on May 19, 2007 (37 Pa.B. 2365), the projected actual emissions for the regulated NSR pollutant, including PM<sub>2.5</sub>, must be incorporated into the required plan approval or operating permit as an emission limit. According

to the Board findings in the final rulemaking, the May 2007 NSR amendments are “necessary to achieve and maintain ambient air quality standards and to satisfy related CAA requirements.” The Board also found that “the final-form rulemaking is necessary for the Commonwealth to avoid sanctions under the CAA.” See 37 Pa. B. 2377-2378.

In order to attain and maintain the NAAQS in this Commonwealth, as required by the Federal CAA, the Board has relied on the 1994 and 2007 rulemakings, which now include the NSR regulated pollutant PM<sub>2.5</sub>, as a result of this final-form rulemaking. The only change being made in this final-form rulemaking is to include PM<sub>2.5</sub> as a regulated NSR pollutant. Consequently, the “no more stringent than” provision under Section 4.2(b) is satisfied, because the Board has determined that this approach is reasonably required to achieve or maintain the PM<sub>2.5</sub> NAAQS. Moreover, these provisions must be maintained to satisfy the anti-backsliding provisions of sections 110 and 193 of the CAA (42 U.S.C.A. §§ 7410 and 7515).

The Department met with the Air Quality Technical Advisory Committee (AQTAC) on September 15, 2010, and the Citizens Advisory Council (CAC) Air Committee on October 18, 2010, to discuss the final-form rulemaking. The AQTAC and CAC both concurred with the Department’s recommendation to move the final-form rulemaking forward to the Board.

#### **E. Summary of Comments and Responses**

A commentator understands that the proposed rulemaking would amend the existing requirements promulgated in Chapter 127, Subchapter E to incorporate recently promulgated Federal requirements for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors, and insists that the proposed changes mirror the new Federal requirements to the extent practicable. The Board agrees with the commentator that there should be consistency between the Federal requirements and the Commonwealth’s regulations.

A commentator believes that a fundamental difficulty with the proposed NSR amendments is the Board's attempt to meet the requirements of the Federal NSR PM<sub>2.5</sub> Rule by applying the Commonwealth's existing NSR provisions to PM<sub>2.5</sub>. Because the Commonwealth's existing NSR rules were developed specifically to address particular issues relating to the Commonwealth's ozone nonattainment areas, and have been amended many times over many years, the rules are not suited in many respects to also address PM<sub>2.5</sub>. The Board clarifies that it did not propose amendments at 40 Pa.B. 703 (February 6, 2010) to many existing provisions of the NSR requirements found in Chapter 127, Subchapter E, which were published at 24 Pa.B. 443 (January 15, 1994). The 1994 final-form rulemaking was approved by the EPA as a revision to the SIP at 62 FR 64722 (December 9, 1997), and is codified in 40 CFR 52.2020, regarding identification of plan – Pennsylvania. Subsequent to the 1994 final-form rulemaking, the EPA initiated a number of changes to the Federal requirements for NSR, which are discussed in the Order to the Board’s final-form rulemaking published at 37 Pa.B. 2365 (May 19, 2007). Amendments to Subchapter E published at 37 Pa.B. 2365 were effective May 19, 2007. The 2007 amendments were submitted to the EPA on August 9, 2007, as an equivalency demonstration and revision to the SIP. However, in light of the concerns raised during the public comment period about the aggregation of de minimis emissions for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors and the limited availability of PM<sub>2.5</sub> emission reduction credits (ERCs) for emission offsets for new or modified major source projects, this final-form rulemaking does not require the aggregation of de minimis emissions for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors. The language at

§ 127.203a(a)(2) is revised in the final-form rulemaking to specifically exclude PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors.

The Independent Regulatory Review Commission (IRRC) stated that there appears to be some inconsistency between the proposed rulemaking Regulatory Analysis Form (RAF) and Preamble as to whether the proposed regulation is consistent with or more stringent than Federal regulations. The Board clarifies that the proposed rulemaking is more stringent than Federal regulations in three ways – de minimis aggregation, fugitive emissions, and the contemporaneous period provisions which were approved by the EPA as a revision to the SIP and implemented by the Department for at least 15 years. As a result, the Preamble to the proposed rulemaking is correct. The final-form rulemaking deletes the de minimis aggregation provision for PM<sub>2.5</sub> and precursor emissions.

IRRC commented further that the information in the Preamble to the proposed rulemaking and the accompanying materials did not provide information on whether the Department has identified areas where NOx emissions are not a significant contributor to PM<sub>2.5</sub> concentrations. The IRRC requested that this information be provided with the final-form rulemaking. To this end, the Board responds that the final-form rulemaking definition of the term “regulated NSR pollutant” has been amended as follows: “Nitrogen oxides are presumed to be precursors to PM<sub>2.5</sub> in PM<sub>2.5</sub> nonattainment areas unless the Department demonstrates to the satisfaction of the Administrator of the EPA or the Administrator of the EPA determines that NOx emissions from a source in a specific area are not a significant contributor to that area’s ambient PM<sub>2.5</sub> concentrations.” The Department has not done a study to identify areas where NOx emissions are not a significant contributor to PM<sub>2.5</sub> concentrations.

IRRC is concerned about the impact the final rule will have on Commonwealth industry with respect to competitiveness with industry in neighboring states. The Board responds that the Department conferred with neighboring states in April and November, 2010, concerning the status of their NSR PM<sub>2.5</sub> rulemakings. A number of neighboring states are still working on PM<sub>2.5</sub> amendments to their NSR programs to meet the Federal PM<sub>2.5</sub> requirements and develop SIP revisions by May 2011. West Virginia finalized NSR requirements for PM<sub>2.5</sub> on June 1, 2010. Delaware expects to propose its rulemaking by May 1, 2011, and finalize its rulemaking by July 1, 2011. All of the states must submit SIP revisions that, at a minimum, will implement the EPA’s PM<sub>2.5</sub> requirements for nonattainment areas. It is not anticipated that the final-form rulemaking will place the owners of affected sources in this Commonwealth at a competitive disadvantage; the final-form rulemaking does not include PM<sub>2.5</sub> de minimis aggregation requirements because of the limited availability of emission offsets.

A commentator questions the testing procedures and listed offset ratio relationships and wonder how it was calculated, and where the ratios came from, and exact dates for early emission reduction credit (ERC) credit calculations. The Board responds that EPA-established trading ratios for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors for nonattainment NSR PM<sub>2.5</sub> emissions were specified in the proposed rulemaking and these ratios are retained in the final-form rulemaking. The Board did not propose to amend the existing requirements at § 127.207(1) (relating to creditable emissions decrease or ERC generation and creation).

A commentator stated that enactment of the proposed rulemaking amendments would result in two distinct and different sets of definitions for some parameters of interest (for example, two different definitions for a "regulated NSR pollutant" and "significant," with the definitions

depending on the attainment status of the pollutant of interest). The Board responds that the definitions and requirements for the state-specific NSR and prevention of significant deterioration (PSD) programs mirror the applicable Federal NSR and PSD regulations.

The commentator requested that the Department's definition of the term "significant" specified in § 121.1 (relating to definitions) be consistent and verbatim with the EPA's definition of the term found at 40 CFR 52.21(b)(23). The Board disagrees. The EPA's definition of the term "significant" found at 40 CFR 52.21(b)(23) applies to PSD requirements for attainment and unclassifiable areas, not to nonattainment NSR, and is adopted by reference under Chapter 127, Subchapter D to support the Department's PSD program. The definition of the term "significant" specified in § 121.1 supports existing requirements in Subchapter E for nonattainment NSR and is consistent with the EPA's definition of the term "significant" found at 40 CFR 51.165(a)(1)(x)(A) for nonattainment NSR programs.

A commentator requested that the Department's definition of the term "regulated NSR pollutant" specified in § 121.1 be consistent and verbatim with the EPA's definition of the term found at 40 CFR 52.21(b)(50). The Board disagrees. The EPA's definition of the term "regulated NSR pollutant" found at 40 CFR 52.21(b)(50) applies to PSD requirements for attainment and unclassifiable areas, not to nonattainment NSR, and is adopted by reference under Chapter 127, Subchapter D to support the Department's PSD program. The definition of the term "regulated NSR pollutant" specified in § 121.1 supports existing requirements in Subchapter E for nonattainment NSR and is consistent with the EPA's definition of the term "regulated NSR pollutant" found at 40 CFR 51.165(a)(1)(xxxvii) for nonattainment NSR programs.

A commentator stated that the proposed NSR amendments require clarification with respect to the manner in which NSR will be applied to PM<sub>2.5</sub> and its precursors. The Board clarifies that the definitions of the terms "major facility" and "net emissions increase" specified in § 121.1 are similar to the EPA's definition of the term "major stationary source" found at 40 CFR § 51.165(a)(1)(iv)(A). During the implementation of the NSR PM<sub>2.5</sub> provisions, the Department will follow the EPA's policies and interpretations provided for nonattainment NSR for regulating emissions of PM<sub>2.5</sub> and its precursors SO<sub>2</sub> and NO<sub>x</sub>.

A commentator stated that the definition of the term "maximum allowable emissions" should be verbatim with the definition of the term "allowable emissions" found at 40 CFR 52.21(b)(16), regarding prevention of significant deterioration of air quality. The Board proposed deletion of the term "maximum allowable emissions" and its definition, as denoted by bolded brackets in the published notice, since the term is no longer used to support existing regulations and this term is not used in the Federal NSR regulations under 40 CFR 51.165. This deletion is retained in the final-form rulemaking.

Several commentators stipulated that the aggregation of de minimis emission increases is inappropriate for PM<sub>2.5</sub>, indicating that the proposed revisions would make de minimis emissions of PM<sub>2.5</sub> subject to the 10-year aggregation provisions of § 127.203a and potentially to the provisions in § 127.203 (relating to facilities subject to special permit requirements). The final-form rulemaking does not require de minimis aggregation for PM<sub>2.5</sub> and precursor emissions.

A commentator stated that the rule should clearly indicate that offsets shall be provided only once for a particular pollutant. For example, a facility located in the Ozone Transport Region that triggers NSR for NO<sub>x</sub> and PM<sub>2.5</sub> should only provide offsets for either NO<sub>x</sub> or NO<sub>x</sub> as a

precursor for PM<sub>2.5</sub>, but not for both. The Board agrees with the commentator. Emissions only need to be offset once. Therefore, if NO<sub>x</sub> emissions offsets are provided as an ozone precursor, these offsets can also serve as PM<sub>2.5</sub> precursor offsets.

A commentator expressed concern that the provision at § 127.210 (relating to offset ratios) does not recognize the interpollutant trading that has already been approved by the EPA for NO<sub>x</sub> and VOC ERCs in the five-county Philadelphia area. These NSR regulations should be amended to either include this interpollutant trading, or so as to not exclude this approved ERC trading mechanism. The Board is not changing the EPA's previously approved interpollutant trading of VOC ERCs for NO<sub>x</sub> ERCs using a substitution ratio in the Philadelphia ozone nonattainment area. However, due to concerns raised by the commentators, the Board is clarifying the language at § 127.206(o) (relating to ERC general requirements) in the final-form rulemaking as follows: "Except as provided under § 127.210 (relating to offset ratios), an ERC created for a regulated criteria pollutant shall only be used for offsetting or netting an emissions increase involving the same criteria pollutant unless approved in writing by the Department and the EPA."

Three commentators suggested that the proposed NSR amendments should be revised to exclude fugitive emissions in the context of major source determinations for PM<sub>2.5</sub>, except for source categories specifically listed in the Federal regulations. Further, the Department should follow the Federal rule (as it continues to be developed) with respect to the consideration of fugitive emissions in the evaluation of emission increases caused by modification projects. The Board did not propose amendments at 40 Pa.B. 703 to revise the aggregation of de minimis emissions of VOCs and NO<sub>x</sub> specified in § 127.203(b)(1). In January 1994, the Board adopted a major facility provision for new source review purposes that includes fugitive emissions from all sources when determining NSR applicability for a major facility, rather than considering fugitives for just the 28 source categories listed in the Federal definition of the term "major stationary source" found at 40 CFR 51.165(a)(1)(iv)(A) (24 Pa.B. 443, January 15, 1994). The more stringent than provisions were determined by the Board to be reasonably necessary to attain and maintain the NAAQS. In order to attain and maintain the NAAQS, the Department has relied since January 15, 1994, on these SIP-approved requirements for the inclusion of fugitive emissions of all criteria pollutants, including particulate matter, CO and ozone and its precursors, VOC and NO<sub>x</sub>, from all sources for major facility determinations. These provisions must be maintained to satisfy the anti-backsliding provisions of sections 110 and 193 of the CAA (42 U.S.C.A. §§ 7410 and 7515).

Two commentators indicated that the proposed language at §§ 127.203(b)(2) and (3) would add ambiguous language that could render these provisions more stringent than the present requirements. The Board agrees. The final-form rulemaking deletes the proposed clarifying language, "including the emissions from the proposed project," at §§ 127.203(b)(2) and (3). However, the emissions from the proposed project must be included with the existing facility PTE to determine whether the facility emissions are more than 100 TPY for consideration of the applicability of control technology requirements such as best available control technology (BACT) or LAER under §§ 127.203(b)(2) and (3).

Two commentators stated that the proposed NSR amendments would add a sentence to § 127.203(b)(1)(i) stating that "the aggregated VOC or NO<sub>x</sub> emissions must meet the applicability requirements of paragraph (2) or (3)." The commentators indicated that when evaluated in the context of subparagraphs (2) and (3), use of the phrase "aggregated emissions" is ambiguous, especially in light of the language discussed above related to inclusion of the

“emissions of the proposed project” in the source’s PTE. The Board disagrees. This language clarifies that the applicant needs to use the provisions in §§ 127.203(b)(2) or (3) for a determination of control technology requirements when the net emissions increase is equal to or exceeds the applicable emissions rate that is significant (25 TPY of NO<sub>x</sub> or VOCs). Subsections 127.203(b)(2) and (3) do not require aggregation of emissions; therefore, there is no double-counting of emissions toward the source’s PTE as indicated by the commentators. The final-form rulemaking retains the proposed language.

A commentator stated that the Board should clarify the provisions of § 127.203(b)(1) that 5-year contemporaneous aggregation is required only for proposed emission increases that exceed the significant emission rate for a pollutant, and that 10-year contemporaneous aggregation is required only for proposed emission increases that are de minimis. The Board disagrees. The Board did not propose amendments to § 127.203(b)(1) at 40 Pa.B. 703. The current requirements in § 127.203 were published at 37 Pa.B. 2385 (May 19, 2007). These 2007 amendments were submitted to the EPA on August 9, 2007, as an equivalency demonstration and revision to the SIP. The requirements at §§ 127.203(b)(1)(i) and (ii) specify that the net emissions increase be calculated using 5-year and 10-year contemporaneous aggregation provisions. First, the owner or operator needs to calculate the net emissions increase using 5-year contemporaneous aggregation provisions at § 127.203(b)(1)(i). If the net emissions increase is equal to or exceeds the applicable emissions rate that is significant (25 TPY of NO<sub>x</sub> or VOCs), the owner or operator needs to use the provisions in §§ 127.203(b)(2) or (3) for the applicability of control technology requirements. If the emissions increase due to the project does not exceed the listed applicable rate, then the owner or operator needs to use the de minimis emissions increase calculation for the 10-year period aggregation of § 127.203(b)(1)(ii) to calculate the net emissions increase.

The commentator requested that the Department issue guidance or amend the language at § 127.203a(a)(5)(iii) that if the projected actual emissions for a regulated NSR pollutant are in excess of the baseline actual emissions and the project results in a net emissions increase which equals or exceeds the applicable significant emissions rate, then the projected actual emissions for the regulated NSR pollutant must be incorporated into the required plan approval or the operating permit as an emission limit. The Board clarifies in the final-form rulemaking that the projected actual emissions are incorporated as a permit limit when the projected actual emissions minus the excludable emissions (emissions following completion of the project that the existing unit could have accounted for prior to the change and that are also unrelated to the change) exceed the baseline actual emissions.

The commentator requested that § 127.201(g) (relating to general requirements) be deleted or suggested that the requirements be modified for consistency with the Federal regulation. The Board amended § 127.201(g) to include condensable emissions in determining whether a source is subject to the major source NSR program beginning January 1, 2011, or earlier date established by the EPA. After January 1, 2011, all sources need to include PM<sub>2.5</sub> condensable emissions in applicability determinations.



## **F. Summary of Final-form Rulemaking and Changes from Proposed to Final-form Rulemaking**

### **Summary of Final-form Rulemaking**

The final-form rulemaking amends § 121.1 to add a new term and definition, “PM<sub>2.5</sub>,” and amend the definitions of two existing terms to include the requirements for PM<sub>2.5</sub> to support the amendments to Chapter 127: “regulated NSR pollutant” and “significant.” The final-form rulemaking deletes an existing term and definition, “maximum allowable emissions,” because this term is no longer needed to support the existing requirements of Chapter 127, Subchapter E and this term is not used in the Federal NSR rules under 40 CFR 51.165

Section 127.201 is amended to include a new subsection (g). Under subsection (g), gaseous emissions that condense to form PM at ambient temperatures will be included in PM<sub>2.5</sub> and PM-10 emissions in accordance with the following requirements: beginning January 1, 2011, or earlier date established by the Administrator, condensable PM shall be accounted for in applicability determinations for PM<sub>2.5</sub> and PM-10 emission limitations established in a plan approval or operating permit issued under this chapter; compliance with emissions limitations for PM<sub>2.5</sub> and PM-10 issued prior to January 1, 2011, or earlier date established by the Administrator, shall not be based on condensable PM unless required by the terms and conditions of a plan approval, operating permit or the SIP; and applicability determinations made prior to January 1, 2011, or earlier date established by the Administrator, without accounting for condensable PM shall not be considered in violation of this subchapter unless the applicable plan approval, operating permit or SIP includes requirements for condensable PM.

Section 127.201a (relating to measurements, abbreviations and acronyms) is amended to include the following acronyms: “PM<sub>2.5</sub>” and “PM-10.” In addition, other minor editorial changes are finalized for this section.

Section 127.202 (relating to effective date) is amended to include references to PM<sub>2.5</sub>.

Section 127.203 is amended under subsection (b)(1)(i) to provide that the aggregated VOC or NO<sub>x</sub> emissions shall meet the applicability requirements of paragraph (2) or (3).

Section 127.203a is amended to include the following requirements under subsection (a): the owner or operator of the facility shall include in the plan approval application the estimate of an emissions increase in a regulated NSR pollutant from the project; the owner or operator shall calculate an emissions increase in a regulated NSR pollutant from a project in accordance with paragraph (1); if the emissions increase from a project equals or exceeds the applicable emissions rate that is significant, the owner or operator shall calculate a net emissions increase in accordance with paragraph (1)(ii); and if the emissions increase from a project does not exceed the listed applicable emissions rate that is significant, the owner or operator shall calculate the net emissions increase in accordance with paragraph (2). In addition, minor editorial changes are finalized for this section as well.

Section 127.204 (relating to emissions subject to this subchapter) is amended to include some minor editorial changes.

Section 127.206 is amended under subsection (o) to provide that except as provided under § 127.210, an ERC created for a regulated criteria pollutant shall only be used for offsetting or netting an emissions increase involving the same criteria pollutant unless approved in writing by the Department and the EPA. The “amnesty period” dates under § 127.206(r) relating to when emission reductions may be used to generate ERCs are amended to specify that emission reductions occurring at a facility after April 5, 2005, but prior to \_\_\_\_\_ (*Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.*) may be used to generate ERCs in accordance with this subchapter, if a complete ERC registry application is submitted to the Department by \_\_\_\_\_ (*Editor's note: The blank refers to the date 12 months after the effective date of adoption of this proposed rulemaking.*). In addition, minor editorial changes are finalized for this section.

Section 127.210 is amended to remove interpollutant trading for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors in the final-form rulemaking due to the EPA’s reconsideration of specific provisions of the final rule published at 73 FR 28321. Among other things, the amended provision provides that the Department may, based on a technical assessment, establish interpollutant trading ratios for offsetting PM<sub>2.5</sub> emissions or PM<sub>2.5</sub> precursor emissions in a specific nonattainment area or geographic area in this Commonwealth. The interpollutant trading ratios shall be subject to public review and comment for at least 30 days prior to submission to the EPA for approval as a SIP revision. Section 127.210 of the final-form rulemaking is further amended to provide that if the EPA promulgates PM<sub>2.5</sub> interpollutant trading ratios in 40 CFR Part 51, the ratios shall be adopted and incorporated in the final-form regulation by reference.

### **Changes from Proposed to Final-form Rulemaking**

Final-form § 121.1 term and definition “regulated NSR pollutant” has been modified between proposed and final-form rulemaking to add subparagraph (iii)(C) to provide that nitrogen oxides are presumed to be precursors to PM<sub>2.5</sub> in PM<sub>2.5</sub> nonattainment areas unless the Department demonstrates to the satisfaction of the Administrator of the EPA or the Administrator of the EPA determines that NO<sub>x</sub> emissions from a source in a specific area are not a significant contributor to that area’s ambient PM<sub>2.5</sub> concentrations.

The term and definition “significant” has been modified between proposed and final-form rulemaking under PM<sub>2.5</sub> emission rate to provide that 10 TPY of PM<sub>2.5</sub>; 40 TPY of SO<sub>2</sub>; and 40 TPY of NO<sub>x</sub> are the applicable rates unless the Department demonstrates to the EPA’s satisfaction or the EPA determines that the NO<sub>x</sub> emissions are not a significant contributor to PM<sub>2.5</sub> nonattainment in the area.

Final-form § 127.201 subsection (g)(1) was modified between proposed and final-form rulemaking to provide that beginning January 1, 2011, or earlier date established by the Administrator, condensable PM shall be accounted for in applicability determinations for PM<sub>2.5</sub> and PM-10 emission limitations established in plan approval or operating permit issued under this chapter.

Final-form § 127.201a was not changed between proposed and final-form rulemaking.

Final-form § 127.202 was not changed between proposed and final-form rulemaking.

Final-form § 127.203 was modified between proposed and final-form rulemaking to delete the proposed phrase “including the emissions from the proposed project” in subsections (b)(2) and (3).

Final-form § 127.203a was modified between proposed and final-form rulemaking under subsection (a)(2) to provide that as part of the plan approval application for a proposed de minimis emission increase, the owner or operator of the facility shall use subparagraphs (i) and (ii) to calculate the net emissions increase for a regulated NSR pollutant except PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors.

Final-form § 127.204 was not changed between proposed and final-form rulemaking.

Final-form § 127.206 was modified between proposed and final-form rulemaking under subsection (o) to provide that except as provided under § 127.210, an ERC created for a regulated criteria pollutant shall only be used for offsetting or netting an emissions increase involving the same criteria pollutant unless approved in writing by the Department and the EPA.

Section 127.210 is amended to remove interpollutant trading for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors in the final-form rulemaking due to the EPA’s reconsideration of specific provisions of the final rule published at 73 FR 28321. On July 15, 2008, the Natural Resources Defense Council and the Sierra Club petitioned the EPA to reconsider and administratively stay specific parts of the final rule titled, “Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>),” published on May 16, 2008. The Petition objected to four parts of the final rule, including allowing states to use EPA-recommended PM<sub>2.5</sub> precursor trading ratios to offset PM<sub>2.5</sub> emissions increases in PM<sub>2.5</sub> nonattainment areas. On January 16, 2009, the EPA denied the July 2008 petition. On February 10, 2009, the same petitioners submitted a second reconsideration request for the same four issues and another request for administrative stay. They also requested reconsideration of the January 16, 2009, denial letter.

The EPA granted the February 10, 2009, petition for reconsideration in order to allow for public comment on each of the four issues raised, including allowing states to use EPA-recommended PM<sub>2.5</sub> precursor trading ratios to offset PM<sub>2.5</sub> emissions increases in PM<sub>2.5</sub> nonattainment areas. The EPA agreed to reconsider the trading ratios and granted the reconsideration of this policy on the grounds that the agency failed to propose for public comment the EPA-recommended offset ratios contained in the preamble to the final rule published at 73 FR 28321. As a result, the existing “preferred” precursor offset ratios will no longer be considered presumptively approvable. That is, any precursor offset ratio submitted as part of the NSR SIP for a PM<sub>2.5</sub> nonattainment area must be accompanied by a technical demonstration showing the suitability of the ratio for that particular nonattainment area. Therefore, the Board developed language for the final-form rulemaking that mirrors the EPA’s intent.

This language removes interpollutant trading for PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors in the final-form rulemaking and amends § 127.210 to provide that the Department may, based on a technical assessment, establish interpollutant trading ratios for offsetting PM<sub>2.5</sub> emissions or PM<sub>2.5</sub> precursor emissions in a specific nonattainment area or geographic area in this Commonwealth. The interpollutant trading ratios shall be subject to public review and comment for at least 30 days prior to submission to the EPA for approval as a SIP revision. Section 127.210 of the final-form rulemaking is further amended to provide that if the EPA promulgates PM<sub>2.5</sub> interpollutant

trading ratios in 40 CFR Part 51, the ratios shall be adopted and incorporated in the final-form regulation by reference.

## **G. Benefits, Costs and Compliance**

### **Benefits**

Overall, the citizens of this Commonwealth will benefit from this final-form rulemaking because it will help to reduce emissions of PM<sub>2.5</sub> from major stationary sources. Attaining and maintaining levels of PM<sub>2.5</sub> below the health- and welfare-based NAAQS are important to reduce premature mortality and other health effects associated with PM<sub>2.5</sub> exposure. Reductions in ambient levels of PM<sub>2.5</sub> will also promote improved animal health and welfare, improved visibility, decreased soiling and materials damage and decreased damage to plants and trees.

### **Compliance Costs**

The final-form rulemaking should not impose additional costs on the regulated community. If a facility triggers NSR for a regulated pollutant or precursor, the owner or operator of the facility must demonstrate compliance by procuring emission offsets and achieving the lowest achievable emission rate. Compliance costs will vary depending on the type of controls installed to satisfy the control technology requirements and the cost of emission offsets.

### **Compliance Assistance Plan**

The Department plans to educate and assist the public and regulated community in understanding the newly revised requirements and how to comply with them. This will be accomplished through the Department's ongoing compliance assistance program.

### **Paperwork Requirements**

There are no additional paperwork requirements associated with this final-form rulemaking with which industry will need to comply.

## **H. Pollution Prevention**

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101-13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. The final-form rulemaking does not directly promote a multi-media approach. The reduced levels of PM<sub>2.5</sub>, however, will benefit water quality through reduced soiling and quantities of sediment that may run off into waterways. Reduced levels of PM<sub>2.5</sub> will therefore promote improved aquatic life and biodiversity, as well as improved human, animal and plant life on land.

## **I. Sunset Review**

These regulations will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

## **J. Regulatory Review**

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on February 6, 2010, the Department submitted a copy of the notice of proposed rulemaking, published at 40 Pa.B. 703, to IRRC and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the House and Senate Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P. S. § 745.5a(j.2)), on xxxx, the final-form rulemaking was (deemed) approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on xxxx and approved the final-form rulemaking.

## **K. Findings**

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2.

(2) At least a 60-day public comment period was provided as required by law and all comments were considered.

(3) This final-form rulemaking does not enlarge the purpose of the proposed rulemaking published at 40 Pa.B. 703.

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this preamble.

(5) These regulations are reasonably necessary to attain and maintain the PM<sub>2.5</sub> NAAQS.

## **L. Order**

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department of Environmental Protection, 25 *Pennsylvania Code*, Chapters 121 and 127 are amended by amending §§ 121.1, 127.201-127.204, 127.206 and 127.210 to read as set forth in Annex A, with ellipses referring to existing text of the regulations.

- (b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.
- (c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the House and Senate Committees as required by the Regulatory Review Act.
- (d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.
- (e) This final-form rulemaking will be submitted to the EPA as an amendment to the Pennsylvania SIP.
- (f) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

MICHAEL KRANCER,  
Chairman