

FINAL RULEMAKING
ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CHS. 121 AND 127]
Additional Requirements for Control of Fine Particulate Matter in the
Nonattainment New Source Review Program

The Environmental Quality Board (Board) amends Chapters 121 (relating to general provisions) and 127, Subchapters E and H (relating to new source review; and general plan approvals and operating permits) to read as set forth in Annex A. This final-form rulemaking incorporates recently promulgated Federal requirements for the regulation of volatile organic compounds (VOC) and ammonia as precursor emissions to the formation of fine particulate matter, which is particulate matter less than and equal to 2.5 micrometers in diameter (PM_{2.5}). This final-form rulemaking also removes the requirement that applications for plan approvals and operating permits for portable sources be submitted by hand delivery or certified mail return receipt requested to allow for greater flexibility in submitting these applications to the Department.

This final-form rulemaking is necessary to address a mandatory 18-month sanction clock, in accordance with section 179 of the Clean Air Act (CAA) (42 U.S.C.A. § 7509), following the United States Environmental Protection Agency's (EPA) determination that the Commonwealth has not met its obligations for the nonattainment new source review (NNSR) permit program, because its existing NNSR program does not include emissions of VOC and ammonia as PM_{2.5} precursors. To stop the sanction clock, the Commonwealth needs to submit this final-form rulemaking to the EPA, for the EPA's technical and administrative review, by November 7, 2019.

This final-form rulemaking will be submitted to the EPA for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form regulation.

This final-form rulemaking was adopted by the Board at its meeting on _____.

A. Effective Date

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

B. Contact Persons

For further information, contact Virendra Trivedi, Chief, Division of Permits, Bureau of Air Quality, Rachel Carson State Office Building, P.O. Box 8468, Harrisburg, PA 17105-8468, (717) 783-9476; or Jennie Demjanick, Assistant Counsel, Bureau of Regulatory Counsel, 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 on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board (EQB)").

C. Statutory Authority

This final-form rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth. Section 5(a)(8) of the APCA also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the CAA (42 U.S.C.A. §§ 7401—7671q).

D. Background and Purpose

On July 18, 1997, the EPA revised the National Ambient Air Quality Standard (NAAQS) for particulate matter (PM) to add new standards for fine particles, using PM_{2.5} as the indicator. The EPA set the health-based (primary) and welfare-based (secondary) PM_{2.5} annual standard at a level of 15 micrograms per cubic meter (µg/m³) and the 24-hour standard at a level of 65 µg/m³. See 62 FR 38652 (July 18, 1997). Subsequently, on October 17, 2006, the EPA revised the primary and secondary 24-hour NAAQS for PM_{2.5} to 35 µg/m³ from 65 µg/m³. See 71 FR 61236 (October 17, 2006). On January 15, 2013, the EPA lowered the health-based (primary) PM_{2.5} annual standard from 15 µg/m³ to 12 µg/m³. See 78 FR 3086 (January 15, 2013).

On January 15, 2015, the EPA designated five areas in this Commonwealth as moderate nonattainment areas for the 2012 annual PM_{2.5} NAAQS, based on air quality monitoring data from 2011 to 2013. See 80 FR 2206 (January 15, 2015). The nonattainment areas were the Allegheny County Area, Allentown Area (Lehigh and Northampton Counties), Delaware County Area, Johnstown Area (Cambria County and partial Indiana County) and Lebanon County Area.

On April 7, 2015, the EPA issued updated designations, based on complete, quality-assured and certified monitoring data from 2012 to 2014, which reduced the number of nonattainment areas in this Commonwealth to three: the Allegheny County Area, the Delaware County Area and the Lebanon County Area. See 80 FR 18535, 18549 (April 7, 2015).

The EPA subsequently determined that two of these areas—Delaware and Lebanon—attained the 2012 annual PM_{2.5} NAAQS based on complete, quality-assured and certified air quality data that shows that the area is monitoring attainment (Clean Data Determination). See 81 FR 89868 (December 13, 2016) and 82 FR 50851 (November 2, 2017) respectively. These final actions suspended the requirements for the Commonwealth to submit an attainment demonstration and associated reasonably available control measures, reasonable further progress plans, contingency measures and other planning SIP revisions related to the areas' attainment of the 2012 annual PM_{2.5} NAAQS for so long as these areas continue to attain the 2012 annual PM_{2.5} NAAQS.

Section 172(c)(3) of the CAA (42 U.S.C.A. § 7502(c)(3)) requires a comprehensive emissions inventory, which is not suspended by the Clean Data Determinations. The Department submitted emissions inventories for the Delaware County and Lebanon County nonattainment areas on May 5, 2017, and September 25, 2017, respectively. On July 3, 2018, the EPA published a final rule that approved both Delaware County and Lebanon County emissions inventories. See 83 FR 31064 (July 3, 2018).

In August 2016, the EPA published its SIP Requirements Rule, which requires states with nonattainment areas for PM_{2.5} to amend their NNSR regulations to include emissions of VOC and ammonia as PM_{2.5} precursors. See Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements, 81 FR 58010 (August 24, 2016). Section 189(a)(2)(B) of the CAA (42 U.S.C.A. § 7513a(a)(2)(B)) and its implementing regulations at 40 CFR 51.1003(a) (relating to attainment plan due dates and submission requirements) requires all moderate nonattainment area elements to be submitted to the EPA for SIP approval no later than 18 months from the date of designation. The designations were effective on April 15, 2015. See 80 FR 2206, 18535. Accordingly, the required elements were due to the EPA for SIP approval on October 15, 2016. The Clean Data Determinations for the Delaware and Lebanon County Areas do not relieve the Commonwealth of its responsibilities to develop this SIP revision for the NNSR permit program.

This final-form rulemaking amends the § 121.1 (relating to definitions) definition of “regulated NSR pollutant” and the Chapter 127, Subchapter E NNSR permitting regulations to include the PM_{2.5} precursor emissions provisions under the SIP Requirements Rule.

In May 2008, the EPA issued its Implementation Rule which defines a major facility as having the potential to emit: 100 tons per year (TPY) of emissions of VOC or ammonia, or both, in a moderate PM_{2.5} nonattainment area and 70 TPY of VOC or ammonia emissions, or both, in a serious PM_{2.5} nonattainment area. See Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), 73 FR 28321 (May 16, 2008). The EPA’s Implementation Rule also established a VOC significance threshold of 40 TPY. The Implementation Rule requires states to determine the ammonia significance threshold and the VOC and ammonia offset ratio. The Clean Data Determinations for the Delaware and Lebanon County Areas do not relieve the Commonwealth of its responsibilities to develop this SIP revision for the NNSR permit program.

This final-form rulemaking amends the § 121.1 definitions of “major facility” and “significant” and the Chapter 127 Subchapter E NNSR permitting regulations related to the VOC and ammonia offset ratio provisions under the Implementation Rule. The definition of “major facility” is also amended to include facilities which emit or have the potential to emit: 70 TPY of PM_{2.5} in a serious nonattainment area for PM_{2.5}, 70 TPY of NO_x in a serious nonattainment area for PM_{2.5}, and 70 TPY of SO₂ in a serious nonattainment area for PM_{2.5}.

On November 4, 2016, the South Coast Air Quality Management District (SCAQMD) amended its NNSR program to include ammonia and VOC as precursors to PM_{2.5} (SCAQMD Rule 1325). As part of that rulemaking, SCAQMD added a significance threshold for ammonia of 40 TPY, which is the same significance threshold in this final-form rulemaking. SCAQMD also included an offset ratio for VOC and ammonia of 1:1, which is the same offset ratio in this final-form rulemaking. On May 8, 2017, the California Air Resources Board submitted a SIP revision to the EPA with the amendments to SCAQMD Rule 1325. On November 30, 2018, the EPA issued a conditional approval of the SIP revision. See 83 FR 61551 (November 30, 2018).

After reviewing the data, the Department believes that SCAQMD’s technical rationale, that 40 TPY for ammonia is conservative because NO_x emissions with an established 40 TPY threshold

have a greater influence in the formation of secondary ambient PM_{2.5} than ammonia emissions, is technically sound. See Proposed Amended Rule 1302—Definitions and Proposed Amended Rule 1325—Federal PM_{2.5} New Source Review Program, Final Staff Report, November 2016, Mike Laybourn, Air Quality Specialist, South Coast Air Quality Management District. The Department adopts that rationale as its own for this final-form rulemaking.

This final-form rulemaking includes a significant impact level (SIL) of 1.2 µg/m³ for 24-hour PM_{2.5} and 0.2 µg/m³ for annual PM_{2.5} which conform with the EPA guidance document for SILs entitled, Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program, EPA memorandum, April 17, 2018, Peter Tsirigotis, Director, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

The addition of PM_{2.5} SILs will mitigate the effects of PM_{2.5} in nonattainment areas affected by PM_{2.5} emissions from attainment areas. A SIL defines the level of ambient air impact that is considered a “significant contribution” to air quality. If the modeled maximum ambient impacts of a new source or modification are below the SILs, the source: (1) is presumed not to cause or contribute significantly to a Prevention of Significant Deterioration (PSD) increment or NAAQS violation, and (2) is not required to perform the multiple-source, cumulative impacts assessments that are otherwise required under PSD.

On April 6, 2018, the EPA published a notice of finding of failure to submit (FFS) SIP revisions for the 2012 annual PM_{2.5} NAAQS, effective May 7, 2018. See 83 FR 14759 (April 6, 2018). The EPA’s FFS included a determination that the Commonwealth has not met its obligations for the NNSR permit program for Allegheny, Delaware and Lebanon Counties because emissions of VOCs and ammonia are not currently regulated as PM_{2.5} precursors. In addition, the FFS included a determination that the following required SIP elements were not submitted for Allegheny County: emissions inventory, control strategy, attainment demonstration, reasonable further progress, qualitative milestones and contingency measures. Because the Allegheny County Health Department (ACHD) is an approved local air pollution control agency under section 12(b) of the APCA (35 P.S. § 4012(b)), it is developing its own SIP revision to address these required SIP elements which the Department will submit to the EPA. In accordance with section 179 of the CAA, a mandatory 18-month sanction clock began on May 7, 2018, the effective date of the FFS.

Section 179 of the CAA authorizes the EPA to use two types of sanctions: 1) imposing what are called “2:1 offsets” on new or modified sources of emissions; and 2) withholding of certain Federal highway funds. Under section 179 of the CAA and its implementing regulations, the Administrator first imposes “2:1 offsets” sanctions for new or modified major stationary sources in the nonattainment area, and then, if the deficiency has not been corrected within 6 months, also applies Federal highway funding sanctions. See 40 CFR 52.31 (relating to selection of sequence of mandatory sanctions for findings made pursuant to section 179 of the Clean Air Act). Therefore, if the deficiency is not corrected, the EPA will impose mandatory “2:1 offsets” sanctions beginning November 7, 2019, and highway fund sanctions beginning May 7, 2020. The Commonwealth receives approximately \$1.7 billion in Federal transportation funding

annually, which would be at risk if the Commonwealth does not implement one of the previously listed options.

Therefore, to stop the sanction clock and correct the deficiency that the Commonwealth has not met its obligations for the NNSR permit program, because the Commonwealth's existing NNSR program does not include VOC and ammonia as PM_{2.5} precursors, one of the following must occur by November 7, 2019:

- 1) The Commonwealth submits an updated NNSR regulation that addresses VOC and ammonia as PM_{2.5} precursors as a SIP revision, which the EPA determines to be technically and administratively complete; or
- 2) The Commonwealth submits a SIP revision for each nonattainment area, and the EPA fully approves and redesignates the area from nonattainment to attainment. Once an area is redesignated as attainment, NNSR would no longer apply.

The Department is pursuing both options to correct the deficiency to ensure that the sanction clock stops by November 7, 2019. The Department submitted the maintenance plans and redesignation to attainment requests for the Delaware and Lebanon County Areas on January 23, 2019 and February 11, 2019, respectively. On July 16, 2019, the EPA proposed to approve these SIP revisions and to determine that the Delaware and Lebanon County Areas meet the 2012 annual PM_{2.5} NAAQS, based on the most recent three years of certified air quality data. See 84 FR 33886 (July 16, 2019). The EPA's proposed rule is open for a 30-day public comment period, closing on August 15, 2019. ACHD finalized its nonattainment new source review regulation and plans to submit an attainment demonstration SIP revision for Allegheny County. On May 23, 2019, the Department submitted ACHD's NNSR regulation to EPA, and ACHD is currently reviewing public comments submitted on its attainment demonstration SIP revision. The EPA must determine that both portions are technically and administratively complete to stop the sanction clock in Allegheny County.

This final-form rulemaking amends § 127.641(c) to remove the requirement that applications for plan approvals and operating permits for portable sources be submitted by hand delivery or certified mail return receipt requested to allow for greater flexibility in submitting these applications to the Department.

This final-form rulemaking helps assure that the citizens of this Commonwealth benefit from reduced emissions of PM_{2.5} and PM_{2.5} precursors from regulated sources. Attaining and maintaining levels of PM_{2.5} below the health-based and welfare-based NAAQS is important to reduce premature mortality and other health and environmental effects associated with PM_{2.5} exposure.

This final-form rulemaking was presented to the Air Quality Technical Advisory Committee (AQTAC) on August 15, 2019, to the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee on August 16, 2019, and to the full CAC on August 20, 2019. Previously, AQTAC and CAC voted unanimously to concur with the Department's recommendation to present the proposed rulemaking to the Board for consideration.

On July 25, 2018, the Small Business Compliance Advisory Committee (SBCAC) stated that the proposed rulemaking did not appear to impact small businesses, that the Committee considered the Department's presentation on the Annex A as informational only, and that the members did not have comments on the proposed rulemaking. SBCAC then voted unanimously to concur with the Department's recommendation to present the proposed rulemaking forward to the Board for consideration. Since SBCAC determined that the proposed rulemaking did not affect small businesses and the Department has not changed the Annex A from proposed to final-form, the Department has satisfied the requirement that SBCAC review and advise the Department on rulemakings which affect small business stationary sources, under section 7.8(a)(6) of the APCA (35 P.S. § 4007.8(a)(6)).

E. Summary of Final-Form Rulemaking and Changes from Proposed to Final-Form Rulemaking

This final-form rulemaking Annex A does not contain any changes from the proposed rulemaking Annex A.

F. Summary of Comments and Responses on the Proposed Rulemaking

The proposed rulemaking was adopted by the Board at its meeting on December 18, 2018, and published in the *Pennsylvania Bulletin* on March 16, 2019, with a 66-day public comment period (49 Pa.B. 1146). Three public hearings were held on April 16, 17 and 18, 2019, in Harrisburg, Pittsburgh, and Norristown, respectively. The public comment period closed on May 20, 2019. The Department received three comments. One commenter supported the proposed rulemaking, while the other two commenters made general comments proposing ways to improve air quality, which are beyond the scope of this rulemaking. On June 19, 2019, the Independent Regulatory Review Commission submitted a letter stating that it has no objections, comments, or recommendations to offer on the rulemaking, and that if the Board delivers the final-form regulation without revisions, and the House and Senate Environmental Resources and Energy Committees do not take any action, it will be deemed approved. The comments received on the proposed rulemaking are addressed in a separate comment and response document.

G. Benefits, Costs and Compliance

Benefits

As noted in Section D of this preamble, the citizens of this Commonwealth benefit from reduced emissions of PM_{2.5} and PM_{2.5} precursors from regulated sources. Attaining and maintaining levels of PM_{2.5} below the health-based and welfare-based NAAQS is important to reduce premature mortality and other health and environmental effects associated with PM_{2.5} exposure. Reductions in ambient levels of PM_{2.5} also promotes improved animal health and welfare, improved visibility, decreased soiling and materials damage, and decreased damage to plants and trees.

However, the Department does not anticipate any immediate emission reductions since this final-form rulemaking is only applicable to the owners and operators of new major sources of ammonia and VOC or existing major sources of ammonia and VOC to which there is a major

modification. This final-form rulemaking may result in a reduction of ammonia that would have otherwise been emitted through the application of Lowest Achievable Emission Rate and Emission Reduction Credits. This final-form rulemaking will not result in any additional reduction in VOC emissions since the owner or operator of a facility subject to the VOC portion of this regulation will already be subject to NNSR for VOC emissions as ozone precursors.

Also, regarding applications for plan approvals and operating permits for portable sources, allowing for additional flexibility provides the regulated community with the option to submit applications in a manner that may be faster and less expensive than the current requirements.

Compliance costs

This final-form rulemaking applies to owners and operators of new or modified major facilities with emissions of VOC or ammonia as PM_{2.5} precursors located within a PM_{2.5} nonattainment area or a PM_{2.5} attainment area that has a significant impact on a PM_{2.5} nonattainment area. The significant impact is determined by the SIL of 1.2 µg/m³ for 24-hour PM_{2.5} and 0.2 µg/m³ for annual PM_{2.5}. It is not expected that any facilities within PM_{2.5} attainment areas will have a significant impact on PM_{2.5} nonattainment areas because no new facilities are known to be constructed or planned to be constructed within PM_{2.5} nonattainment areas that will emit major amounts of VOC or ammonia. There are 17 facilities that have the potential to emit 100 TPY or greater of emissions of VOC, ammonia, or both. The owners and operators of these facilities would be subject to this final-form rulemaking if major modifications occur at the affected facilities for VOC, ammonia, or both, at the facility. The Department is not aware of any upcoming major modifications at these facilities.

In addition, owners and operators of portable sources will be affected when submitting applications to the Department for plan approvals or operating permits. Currently, these applications are required to be either hand delivered or transmitted by certified mail return receipt requested. This final-form rulemaking removes the language on specific delivery method requirements to allow greater flexibility in submitting these applications to the Department.

Compliance Assistance Plan

The Department plans to educate and assist the public and regulated community in understanding the 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.

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 facility owners and operators that permanently achieve or move beyond compliance.

This final-form rulemaking helps assure that the citizens of this Commonwealth benefit from reduced emissions of PM_{2.5} and PM_{2.5} precursors from regulated sources. Attaining and maintaining levels of PM_{2.5} below the health-based and welfare-based NAAQS is important to reduce premature mortality and other health and environmental effects associated with PM_{2.5} exposure. Reduced levels of PM_{2.5} promote improved visibility, decreased soiling and decreased materials damage.

I. Sunset Review

The Board is not establishing a sunset date for this final-form rulemaking, since it is needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary.

J. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on February 25, 2019, the Department submitted a copy of the notice of proposed rulemaking, published at 49 Pa.B. 1146, to IRRC and to 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 this final-form rulemaking, the Department has considered all comments from IRRC and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P.S. § 745.5a(j.2)), on [REDACTED], 2019, this 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 [REDACTED], 2019, and approved this final-form rulemaking.

K. Findings of the Board

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 49 Pa.B. 1146.

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

L. Order of the Board

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

(a) The regulations of the Department, 25 Pa. Code Chapters 121 and 127, are amended by amending §§ 121.1, 127.202, 127.203, 127.210 and 127.641 to read as set forth in Annex A, with ellipses referring to the 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 (71 P.S. §§ 745.1—745.14).

(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 a revision to the Commonwealth's SIP.

(f) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

PATRICK McDONNELL,
Chairperson