| **Regulatory Analysis Form**<br>(Completed by Promulgating Agency)<br><br>**(All Comments submitted on this regulation will appear on IRRC's website)** | ***INDEPENDENT REGULATORY REVIEW COMMISSION*** |
|---|---|
| **(1) Agency**<br>Environmental Protection | |
| **(2) Agency Number: 7**<br>Identification Number: 551 | **IRRC Number:** |

**(3) PA Code Cite:** 25 Pa. Code Chapters 121 and 127

**(4) Short Title:** Additional Requirements for Control of Fine Particulate Matter in the Nonattainment New Source Review Program

**(5) Agency Contacts (List Telephone Number and Email Address):**
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**(6) Type of Rulemaking (check applicable box):**

☒ Proposed Regulation
☐ Final Regulation
☐ Final Omitted Regulation
☐ Emergency Certification Regulation
  ☐ Certification by the Governor
  ☐ Certification by the Attorney General

**(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)**

This proposed rulemaking would amend 25 Pa. Code Chapters 121 (relating to general provisions) and 127, Subchapter E (relating to new source review) to incorporate Federal requirements regulating precursor emissions to the formation of fine particulate matter. The proposed rulemaking would also revise the application submission options for the use of general plan approvals and operating permits for portable sources in 25 Pa. Code § 127.641(c). This proposed rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form regulation.

**(8) State the statutory authority for the regulation. Include <u>specific</u> statutory citation.**

This proposed rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Environmental Quality Board (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 (35 P.S. § 4005(a)(8)) also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. § 7401 et seq.).

**(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as any deadlines for action.**

Yes. EPA published a final rule that requires states with nonattainment areas for particulate matter less than or equal to 2.5 micrometers in diameter ($PM_{2.5}$) to amend their nonattainment new source review (NNSR) regulations to include emissions of volatile organic compounds (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). The Federal regulation at 40 CFR 51.1003(a) requires all moderate nonattainment area elements to be submitted to EPA for SIP approval by 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 EPA for SIP approval on October 15, 2016.

This proposed rulemaking amends the 25 Pa. Code Chapter 121 definition of "Regulated NSR pollutant," and the 25 Pa. Code Chapter 127 Subchapter E NNSR permitting regulations to include the $PM_{2.5}$ precursor emissions provisions under the SIP Requirements Rule.

On April 6, 2018, EPA published a notice of finding of failure to submit (FFS) SIP revisions for the 2012 annual $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS), effective May 7, 2018. See 83 FR 14759. EPA's FFS included a determination that Pennsylvania has not met its obligations for the NNSR permit program for Allegheny, Delaware and Lebanon Counties, since emissions of VOCs and ammonia are not currently regulated as $PM_{2.5}$ precursors. In addition, 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. Allegheny County Health Department will develop the SIP for Allegheny County, because it is an approved local air pollution control agency under section 12(b) of the APCA. 35 P.S. § 4012(b). See also 25 Pa. Code Chapter 133 (Local Air Pollution Agencies). In accordance with section 179 of the CAA (42 U.S.C.A. § 7509), a mandatory 18-month sanction clock began on May 7, 2018, the effective date of the FFS. See Question 10 for more details.

If the EPA Administrator finds that a state has failed to submit an acceptable implementation plan or has failed to implement the requirements of an approved plan, sanctions will be imposed, though sanctions cannot be imposed until 18 months after the Administrator makes the determination, and sanctions cannot be imposed if a deficiency has been corrected within the 18-month period.

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

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

Section 179 of the CAA (42 U.S.C.A. § 7509) 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, 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 options listed aboveSee 40 CFR § 52.31(d).

The Department is working on both options to correct the deficiency and stop the sanctions clock. The Department believes that there is sufficient time to develop, submit, and approve one or both of these options by November 7, 2019.

**(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.**

Implementation of the proposed requirements for NNSR for $PM_{2.5}$ would benefit the health and welfare of the approximately 12 million human residents of this Commonwealth. The health effects associated with exposure to elevated levels of $PM_{2.5}$ are significant. Epidemiological studies have shown a significant correlation between elevated $PM_{2.5}$ levels and premature mortality. Other important effects associated with $PM_{2.5}$ exposure 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 $PM_{2.5}$ exposure include older adults, people with heart and lung disease, and children. Environmental effects of $PM_{2.5}$ pollution include visibility impairment, soiling and materials damage.

On July 18, 1997, EPA revised the NAAQS for particulate matter (PM) to add new standards for fine particles, using $PM_{2.5}$ as the indicator. EPA set the health-based (primary) and welfare-based (secondary) $PM_{2.5}$ annual standard at a level of 15 micrograms per cubic meter ($\mu g/m^3$) and the 24-hour standard at a level of 65 $\mu g/m^3$. See 62 FR 38652. Subsequently, on October 17, 2006, EPA revised the primary and secondary 24-hour NAAQS for $PM_{2.5}$ to 35 $\mu g/m^3$ from 65 $\mu g/m^3$. See 71 FR 61236. On January 15, 2013, EPA lowered the health-based (primary) $PM_{2.5}$ annual standard from 15 $\mu g/m^3$ to 12 $\mu g/m^3$. See 78 FR 3086.

On January 15, 2015, EPA designated five areas in Pennsylvania as moderate nonattainment areas for the 2012 annual $PM_{2.5}$ NAAQS, based on air quality monitoring data from 2011-2013. See 80 FR 2206. 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, EPA issued updated designations, based on complete, quality-assured, and certified monitoring data from 2012-2014, which reduced the number of nonattainment areas in Pennsylvania to three: the Allegheny County Area, the Delaware County Area, and the Lebanon County Area. See 80 FR 18535, 18549.

Section 189(a)(2)(B) of the CAA (42 U.S.C.A. § 7513a(a)(2)(B)) required Pennsylvania to develop a revision to the SIP by October 15, 2016, to demonstrate how the three Pennsylvania nonattainment areas will attain the 2012 annual $PM_{2.5}$ NAAQS as expeditiously as practicable but no later than 18 months from the effective date of designations.

On April 1, 2016, the Department sent a letter to EPA, certifying that its 2015 air quality data had been submitted and quality assured. On December 13, 2016, EPA determined that the Delaware County nonattainment area attained the 2012 annual $PM_{2.5}$ NAAQS based on 2013-2015 complete, quality-assured, and certified air quality data that shows that the area is monitoring attainment ("Clean Data

Determination"). See 81 FR 89868. This final action 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 Delaware County Area's attainment of the 2012 annual $PM_{2.5}$ NAAQS for so long as the area continues to attain the 2012 annual $PM_{2.5}$ NAAQS.

On May 17, 2017, the Department sent a letter to EPA, certifying that its 2016 air quality data had been submitted and quality assured. On November 2, 2017, EPA issued a Clean Data Determination for the Lebanon County nonattainment area, as the area attained the 2012 annual $PM_{2.5}$ NAAQS based on 2014-2016 complete, quality-assured, and certified air quality data that shows that the area is monitoring attainment. This final action 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 Lebanon County Area's attainment of the 2012 annual $PM_{2.5}$ NAAQS for so long as the area continues 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, EPA published a final rule that approved both Delaware County and Lebanon County emissions inventories. See 83 FR 31064.

On April 6, 2018, EPA published a FFS for the 2012 annual $PM_{2.5}$ NAAQS, effective May 7, 2018. See 83 FR 14759. EPA's FFS included a determination that Pennsylvania has not met its obligations for the NNSR permit program for Allegheny, Delaware and Lebanon Counties, since 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. As previously discussed, the Allegheny County Health Department is developing a SIP revision to address these required SIP elements. In accordance with section 179 of the CAA (42 U.S.C.A. § 7509), a mandatory 18-month sanction clock began on May 7, 2018, the effective date of the FFS. (See Question 9 for more information.)

The health-based primary standard is designed to protect human health from elevated levels of $PM_{2.5}$, which have been linked to premature mortality and other important health effects. The secondary standard is designed to protect against major environmental effects of $PM_{2.5}$ such as visibility impairment, soiling, and materials damage.

The proposed rulemaking would help assure that the citizens of this Commonwealth will 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- and welfare-based NAAQS is important to reduce premature mortality and other health and environmental effects associated with $PM_{2.5}$ exposure.

The addition of $PM_{2.5}$ significant impact levels (SILs) will mitigate the effects of $PM_{2.5}$ in nonattainment areas affected by $PM_{2.5}$ emissions from attainment areas.

This proposed rulemaking would amend § 127.641(c) to provide the regulated community with additional ways to submit applications to use portable source general plan approvals and operating permits, which currently requires that applications to use portable source general plan approvals and operating permits be hand delivered or transmitted by certified mail return receipt requested. Allowing for additional flexibility

would provide additional options for the regulated community to submit applications that may be faster and cheaper than what is currently available.

*Obligations under the CAA*: Section 109(b) of the CAA provides that the Administrator of the EPA must set NAAQS for air pollutants at levels that protect public health and the environment. 42 U.S.C.A. § 7409(b). Section 109(d) of the CAA provides that the NAAQS be reviewed at periodic intervals to ensure the standards reflect the latest scientific knowledge on the effects of air pollutants. 42 U.S.C.A. § 7409(d).

*Anticipated emission reductions*: The Department does not anticipate any immediate emission reductions since this proposed 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. The proposed rulemaking may result in a reduction of ammonia that would have otherwise been emitted through the application of Lowest Achievable Emission Rate (LAER) and Emission Reduction Credits (ERCs). This proposed 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 would already be subject to NNSR for VOC emissions as ozone precursors.

The proposed rulemaking, once promulgated and submitted to EPA as a SIP revision, would avoid the economic sanctions that EPA would impose on Pennsylvania. The "2:1 offsets" sanction would be burdensome not only to owners and operators subject to the proposed rulemaking, but also to any owner or operator subject to the existing NNSR requirements. The 2:1 offset sanction would be a financial burden to affected owners and operators as they must buy two times the amount of ERCs they would otherwise require, and the price of each ton of ERC would be expected to increase since the supply would not be increased. The second EPA sanction, the highway funding sanction, would put an economic burden directly on the Commonwealth since approximately $1.7 billion in Federal transportation funding is received annually. Under Section 179(b)(1) of the CAA (42 U.S.C.A. 7509(b)(1)), once EPA imposes highway sanctions, the Secretary of Transportation may not approve or award any grants in the sanctioned area, with the exception of grants or projects for the purposes of safety, congressionally-authorized activities, or air quality improvement.

This proposed rulemaking is necessary to avoid the mandatory sanctions EPA would impose on Pennsylvania in accordance with section 179 of the CAA (as discussed in Question 9). This proposed rulemaking is reasonably necessary to attain and maintain the $PM_{2.5}$ NAAQS in this Commonwealth, and, if promulgated as a final-form regulation, will be submitted to EPA as a revision to the SIP.

**(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.**

No. The proposed amendments would not be more stringent than the Federal regulations of 40 CFR 50.13; 40 CFR Part 51, Appendix A; 40 CFR 51.165; 40 CFR 51.1000-51.1016; 40 CFR Part 51, Appendix S; and 40 CFR 93.153.

**(12) How does this regulation compare with those of the other states? How will this affect Pennsylvania's ability to compete with other states?**

The proposed rulemaking is based on Federal requirements and guidance.

EPA issued an 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) [Implementation Rule]. 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.

This proposed rulemaking amends the 25 Pa. Code Chapter 121 definitions of "Major facility" and "Significant," and the 25 Pa. Code Chapter 127 Subchapter E NNSR permitting regulations related to the VOC and ammonia offset ratio provisions under the Implementation Rule.

Pennsylvania was one of four states with areas designated as nonattainment for the 2012 annual $PM_{2.5}$ NAAQS. Information is provided below for the other three states with nonattainment areas for the 2012 annual $PM_{2.5}$ NAAQS: California, Idaho, and Ohio.

***Idaho***: The state of Idaho was listed in the April 6, 2018, finding of failure to submit for the West Silver Valley nonattainment area. Idaho has not proposed a SIP revision to correct the required SIP elements to EPA. Therefore, Idaho does not have a comparable rule to the proposed rulemaking.

***Ohio***: On July 18, 2018, EPA approved Ohio's determination that VOC and ammonia are insignificant sources of $PM_{2.5}$ as a SIP revision. See 83 FR 33844. Therefore, Ohio does not have a comparable rule to the proposed rulemaking.

***California***: The state of California was listed in EPA's April 6, 2018, finding of failure to submit required SIP elements for the 2012 annual $PM_{2.5}$ NAAQS. California has four areas that were designated as nonattainment areas for the 2012 annual $PM_{2.5}$ NAAQS. Details on each of the four areas are provided below.

*Los Angeles-South Coast Air Basin*: This nonattainment area falls under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). On November 4, 2016, SCAQMD amended their NNSR program to include ammonia and VOC as precursors to $PM_{2.5}$ (SCAQMD Rule 1325). As part of the rulemaking, SCAQMD added a significance threshold for ammonia of 40 TPY, which is the same significance threshold in this proposed rulemaking. SCAQMD also included an offset ratio for VOC and ammonia of 1:1, which is the same offset ratio in this proposed rulemaking. On May 8, 2017, the California Air Resource Board (CARB) submitted a SIP revision to EPA with the amendments to SCAQMD Rule 1325. On August 8, 2018, EPA proposed a conditional approval of the SIP revision. See 83 FR 39012. The Department reviewed the technical data associated with the SCAQMD rule and adopts it as its own technical review as part of this proposed rulemaking.

*Imperial County*: This nonattainment area falls under the jurisdiction of the Imperial County Air Quality Management District (ICAQMD). On April 27, 2018, CARB released a staff report on a draft SIP revision for the ICAQMD. Within this draft SIP revision, it was determined that VOC and ammonia are insignificant sources of $PM_{2.5}$. EPA has not yet taken final action on this SIP revision. Therefore, ICAQMD does not have a comparable rule to the proposed rulemaking.

*San Joaquin Valley Air Basin*: This nonattainment area falls under the jurisdiction of the San Joaquin Valley Air Quality Management District (SJVAQMD). SJVAQMD proposed that VOC and ammonia should not be precursors to $PM_{2.5}$. On August 31, 2016, EPA agreed with the SJVAQMD assessment on VOC, but disagreed with the determination for ammonia. See 81 FR 59876. In July 2018, CARB released a draft SIP revision for the 2012 annual $PM_{2.5}$ NAAQS that included a precursor demonstration that ammonia is not a significant contributor to $PM_{2.5}$. EPA has not taken action on this SIP revision. Therefore, SJVAQMD does not have a comparable rule to the proposed rulemaking.

*Plumas County*: This nonattainment area falls under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD). NSAQMD determined that VOC and ammonia are not significant contributors to $PM_{2.5}$. On February 28, 2017, CARB submitted the NSAQMD determination as a SIP revision to EPA. On December 27, 2017, EPA proposed approval of the SIP revision. See 82 FR 61203. On April 2, 2018, EPA issued a final action to approve the NSAQMD determination. See 83 FR 13871. Therefore, NSAQMD does not have a comparable rule to the proposed rulemaking.

The proposed rulemaking includes SILs of 1.2 $\mu g/m^3$ for 24-hour $PM_{2.5}$ and 0.2 $\mu g/m^3$ 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, U.S. 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 attainment areas affected by $PM_{2.5}$ emission from nonattainment areas. The SILs are necessary to make sure that attainment is maintained in these attainment areas.

The proposed rulemaking is consistent with Federal requirements, guidance, and the SCAQMD regulation. This consistency will ensure that Pennsylvania will not be at a competitive disadvantage.

**(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.**

No other regulations are affected by this proposed rulemaking.

**(14) Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. ("Small business" is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)**

The proposed rulemaking was presented to the Small Business Compliance Advisory Committee (SBCAC) on July 25, 2018, and to the Air Quality Technical Advisory Committee (AQTAC) on August 2, 2018. Neither committee expressed concerns, and both committees voted unanimously to concur with the Department's recommendation to present the proposed rulemaking to the Board for consideration for publication as a proposed rulemaking.

On August 21, 2018, the proposed rulemaking was presented to the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight (PRO) Committee. The PRO Committee requested that clarity be provided in 25 Pa. Code § 121.1 under the definition of "major facility" to indicate that the proposed rulemaking language of "Seventy TPY of $PM_{2.5}$, NOx, $SO_2$, VOCs or ammonia in a serious nonattainment area for $PM_{2.5}$" means 70 TPY for each pollutant individually and not combined. The Department agreed and revised the definition to provide the requested clarification. On September 18, 2018, the full CAC concurred with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration.

**(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?**

This proposed rulemaking would apply to owners and operators of new or modified major facilities with emissions of VOCs or ammonia as $PM_{2.5}$ precursors located within $PM_{2.5}$ nonattainment areas or that are located within $PM_{2.5}$ attainment areas and would have a significant impact to a $PM_{2.5}$ nonattainment area. It

is not expected that any facilities within $PM_{2.5}$ attainment areas will have a significant impact on $PM_{2.5}$ nonattainment areas.

Department databases, including Environmental Facility Application Compliance Tracking System (eFACTS), and Air Information Management System (AIMS), were reviewed to gather information about potentially affected facilities. Within the $PM_{2.5}$ nonattainment areas, there are 17 facilities that have the potential to emit 100 tons per year or greater of emissions of VOCs, ammonia, or both. The owners and operators of these facilities would be subject to the proposed rulemaking if major modifications occur at the affected facilities. See Question 16 for the list of facilities.

The Department's analysis of potentially affected entities relied on the North American Industry Classification System (NAICS) codes for the subject industry sectors. The NAICS codes were used to determine the size standard for each business in accordance with the U.S. Small Business Administration (SBA) Small Business Size Regulations under 13 CFR Chapter 1, Part 121 (relating to small business size regulations). The small business size standard for most of these NAICS categories was based on number of employees and ranged from 500 to 1,500 employees; that is, the business could have as many as 500 to 1,500 employees and be considered a small business. In a few instances the small business size standard for the affected NAICS code was annual product sales in the millions of dollars. The Department determined that of these 17 potentially subject facilities, 2 facilities (12%) are small businesses that would potentially be subject to the proposed rulemaking, while 15 facilities were determined to not be small businesses. The owner and operator of a facility in these industry sectors may be classified as a small business under the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121, while still having the potential to emit sufficient $PM_{2.5}$ precursor emissions of VOC, ammonia, or both, to be subject to the proposed rulemaking. A new facility would be affected by the proposed rulemaking if the facility has the potential to emit 100 tons per year or greater of emissions of VOCs, ammonia, or both.

Owners and operators of facilities that become subject to the VOC portion of this regulation would not incur any additional costs. Since the entire Commonwealth is located within the Ozone Transport Region, all counties are considered to be nonattainment for ozone. The emission thresholds for major facility and significant modification for VOC as an ozone precursor are the same or less than those for VOC as a $PM_{2.5}$ precursor. As such, the owners and operators are currently, and would remain, subject to NNSR for VOCs. The LAER and alternate sites, sizes, and processes analyses would already be required for VOCs. In addition, no additional ERCs would be required since the ERCs are on a pollutant-by-pollutant basis, not a standard-by-standard basis. ERC requirements are met for a given pollutant even where the same pollutant is subject to NSR in multiple paths, as long as the most stringent requirements for ERC generation location and offset ratios are met. The preamble to EPA's Implementation Rule confirmed this by stating the following:

> *Two commenters requested that we make clear in the final rule that an increase in precursor emissions need only be offset once, even if the increase triggers nonattainment NSR under, for example, both the ozone and $PM_{2.5}$ programs. We agree with these commenters and are clarifying that a precursor emissions increase only needs to be offset once. A permit applicant will not, for example, need to obtain two sets of offsets for NOx emissions if NOx is regulated as a precursor both for ozone and $PM_{2.5}$ in the area. The NOx precursor emissions need only be offset once in accordance with the applicable ratio. To the extent a higher ratio applies for ozone under subpart 2, the applicant would have to obtain offsets at the higher ratio. However, when the offset ratios are the same, both requirements can be met with a single set of NOx offsets.* 73 FR at 28338

Owners and operators of facilities that become subject to the ammonia portion of this regulation would be required to perform LAER and alternate sites, sizes, and processes analyses. Additionally, they would be required to obtain ammonia ERCs. Currently, there are no ammonia ERCs in the ERC registry. Therefore, an owner or operator would most like comply through the purchase and use of other precursor ERCs and make a demonstration for interprecursor trading.

Should an owner or operator become subject to the ammonia portion of the proposed rulemaking, it is probable that the owner or operator would also be subject to existing NNSR provisions for oxides of nitrogen (NOx) and/or VOC. The owner or operator would already be required to perform LAER and alternate sites, sizes, and processes analyses under the existing regulations. Additionally, NOx and VOC ERCs purchased and used as emission offsets could be used for ammonia ERCs through interprecursor trading.

Owners and operators of portable sources would be affected when submitting applications to the Department for a general plan approval or operating permit. Currently, these applications are required to be either hand delivered or transmitted by certified mail return receipt requested. The proposed rulemaking would remove the language on specific requirements and replace it with the ability to submit applications to the Department by any means.

**(16) List the persons, groups or entities, including small businesses, which will be required to comply with the regulation. Approximate the number that will be required to comply.**

As noted in the response to Question (15), this proposed rulemaking would apply to owners and operators of new or modified major facilities with emissions of VOCs or ammonia as $PM_{2.5}$ precursors located within $PM_{2.5}$ nonattainment areas or that are located within $PM_{2.5}$ attainment areas and would have a significant impact to a $PM_{2.5}$ nonattainment area. It is not expected that any facilities within $PM_{2.5}$ attainment areas will have a significant impact on $PM_{2.5}$ nonattainment areas. 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 VOCs or ammonia. Existing facilities that currently have the potential to emit 100 tons per year or greater of emissions of VOCs, ammonia, or both will only become subject to the proposed regulation if there is a major modification for VOCs, ammonia, or both at the facility. The Department is not aware of any upcoming major modifications at these facilities. The identified facilities are listed below.

| **County** | **Facility** | **Pollutant** |
|---|---|---|
| Allegheny | ALLEGHENY ENERGY SUPPLY/SPRINGDALE | Ammonia |
| Allegheny | USS/CLAIRTON WORKS | Ammonia and VOC |
| Allegheny | ATI FLAT ROLLED PRODUCTS/BRACKENRIDGE | VOC |
| Allegheny | EASTMAN CHEM RESINS INC/JEFFERSON SITE | VOC |
| Allegheny | NEVILLE CHEM CO/PGH | VOC |
| Allegheny | PPG IND INC/SPRINGDALE | VOC |
| Allegheny | US STEEL CORP/IRVIN PLT | VOC |
| Delaware | DELAWARE CNTY REG WA/ WESTERN REG TRMT PLT | Ammonia |
| Delaware | BOEING CO PHILA/ RIDLEY PARK PA FAC | VOC |
| Delaware | BRASKEM AMER INC/MARCUS HOOK | VOC |
| Delaware | CONGOLEUM CORP/TRAINER PLT | VOC |
| Delaware | LAUREL PIPELINE CO LP/BOOTHWYN BREAKOUT STATION | VOC |
| Delaware | MONROE ENERGY LLC/TRAINER | VOC |
| Delaware | SPMT / MARCUS HOOK IND COMPLEX | VOC |
| Delaware | SUNOCO PARTNERS MKT & TERM LP/TANK FARM 2 | VOC |

| | | |
|---|---|---|
| Delaware | SUNOCO PARTNERS MKT & TERM LP/TWIN OAKS TERM | VOC |
| Lebanon | BEMIS PKG INC/LEBANON | VOC |

Of these facilities, Neville Chemical Company in Allegheny County and Congoleum Corporation in Delaware County are identified as small businesses.

**(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.**

This proposed rulemaking would only have a direct financial impact on the regulated community and any business engaged in the manufacturing or distribution of control equipment for VOC and ammonia emissions. Other businesses who have generated ERCs may benefit financially through the sale of those ERCs to affected owners and operators.

Economic and social impact would be demonstrated by reduced levels of $PM_{2.5}$ in nonattainment areas of this Commonwealth. Effectiveness would also be demonstrated through reduced incidence of respiratory and cardiovascular disease (as indicated by reduced hospital admissions, emergency room visits, absences from school and work, and restricted activity days) and reduced incidence of lung disease, decreased lung function, asthma attacks and certain cardiovascular problems. Other indicators of effectiveness would be improved visibility, decreased soiling and decreased materials damage.

**(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.**

It is not anticipated that any additional costs to the regulated community will be incurred as a result of these proposed amendments. Any costs to the industry to comply with this proposed rulemaking would be outweighed by the health and welfare benefits and economic benefits of this proposed rulemaking. The health and welfare benefits are from the reduction of the emissions of pollutants into the atmosphere and subsequent formation of $PM_{2.5}$ by the imposition of LAER, which reduce human and animal exposure to harmful fine particulate pollution.

**(19) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.**

Owners and operators of facilities that become subject to the VOC portion of this regulation would not incur any additional costs.

The cost of complying with the requirements in the proposed rulemaking would primarily affect owners and operators of facilities that become subject to the ammonia portion of this regulation, as they would be required to perform LAER and alternate sites, sizes, and processes analyses. Additionally, they would be required to obtain ammonia ERCs. Currently, there are no ammonia ERCs in the ERC registry. Therefore, an owner or operator would most like comply through the purchase and use of other precursor ERCs and make a demonstration for interprecursor trading.

Should an owner or operator become subject to the ammonia portion of the proposed rulemaking, it is probable that the owner or operator would also be subject to existing NNSR provisions for NOx and/or VOC. The owner or operator would already be required to perform LAER and alternate sites, sizes, and processes analyses under the existing regulations. Additionally, NOx and VOC ERCs purchased and used as emission offsets could be used for ammonia ERCs through interprecursor trading.

Depending on the delivery method chosen by the regulated community, the submittal of portable source general plan approvals and operating permits applications may be cheaper than what is currently available.

New legal, accounting or consulting procedures would not be required.

Please also see the response to Question 15 for more detail.

**(20) Provide a specific estimate of the costs and/or savings to local governments associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.**

It is not anticipated that any additional costs to local governments will be incurred as a result of this proposed rulemaking.

**(21) Provide a specific estimate of the costs and/or savings to state government associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.**

It is not anticipated that any additional costs to state government will be incurred as a result of this proposed rulemaking.

**(22) For each of the groups and entities identified in items (19)-(21) above, submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.**

No additional legal, accounting, or consulting procedures are expected for the groups identified in items (19)-(21) above.

**(22a) Are forms required for implementation of the regulation?**

There are no forms required for implementation of the regulation.

**(22b) If forms are required for implementation of the regulation, attach copies of the forms here. If your agency uses electronic forms, provide links to each form or a detailed description of the information required to be reported. Failure to attach forms, provide links, or provide a detailed description of the information to be reported will constitute a faulty delivery of the regulation.**

N/A

**(23) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.**

| | Current FY Year 18/19 | FY+1 Year 19/20 | FY+2 Year 20/21 | FY+3 Year 21/22 | FY+4 Year 22/23 | FY+5 Year 23/24 |
|---|---|---|---|---|---|---|
| **SAVINGS:** | **$** | **$** | **$** | **$** | **$** | **$** |
| **Regulated Community** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Local Government** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **State Government** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Savings** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **COSTS:** | **$** | **$** | **$** | **$** | **$** | **$** |
| **Regulated Community** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Local Government** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **State Government** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Costs** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **REVENUE LOSSES:** | **$** | **$** | **$** | **$** | **$** | **$** |
| **Regulated Community** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Local Government** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **State Government** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Revenue Losses** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**(23a) Provide the past three year expenditure history for programs affected by the regulation.**

| Program | FY-3 (15/16) | FY-2 (16/17) | FY-1 (17/18) | Current FY (18/19) |
|---|---|---|---|---|
| Environmental Program Management (161-10382) | $28,277,000 | $26,885,000 | $29,413,000 | $30,932,000 |
| Clean Air Fund Major Emission Facilities (215-20077) | $17,373,000 | $16,931,000 | $16,358,000 | $17,878,000 |
| Clean Air Fund Mobile and Area Facilities (233-20084) | $10,142,000 | $8,228,000 | $8,078,000 | $9,369,000 |

**(24) For any regulation that may have an adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), provide an economic impact statement that includes the following:**

**(a) An identification and estimate of the number of small businesses subject to the regulation.**

This proposed rulemaking would apply to owners and operators of new or modified major facilities with emissions of VOCs or ammonia as $PM_{2.5}$ precursors located within $PM_{2.5}$ nonattainment areas or that are located within $PM_{2.5}$ attainment areas and would have a significant impact to a $PM_{2.5}$ nonattainment area. It is not expected that any facilities within $PM_{2.5}$ attainment areas will have a significant impact on $PM_{2.5}$ nonattainment areas.

Within the $PM_{2.5}$ nonattainment areas, there are 17 facilities that have the potential to emit 100 tons per year or greater of emissions of VOCs, ammonia, or both, as discussed in Question 16. No small businesses within $PM_{2.5}$ nonattainment areas are major facilities for ammonia. Two small businesses have been identified that have facilities within $PM_{2.5}$ nonattainment areas and those facilities are major for VOC: Neville Chemical Company in Allegheny County and Congoleum Corporation in Delaware County. These businesses would only become subject to the proposed rulemaking if there is a major modification of VOC at the facility. In this case, since the owners and operators would already be subject to the existing NNSR provisions, there would be no additional burden placed onto these small businesses.

**(b) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.**

The recordkeeping and reporting requirements for owners and operators of affected small businesses would not change from what is already required. Depending on the delivery method chosen by the regulated community, the submittal of portable source general permit applications may be cheaper than what is currently available. There are no further legal, accounting or consulting procedures established in the proposed rulemaking.

**(c) A statement of probable effect on impacted small businesses.**

Neither of the small businesses identified in Questions 16 and 24(a) are expected to be subject to the proposed rulemaking since there is no indication of a major modification that will be taking place at either small business.

**(d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.**

There are no less intrusive or less costly alternative regulatory provisions available.

**(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.**

No special provisions were developed. The proposed rulemaking was developed to satisfy the State Implementation Plan Requirements as promulgated by EPA. EPA's Implementation Rule does not allow for the development of special provisions.

**(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.**

No alternative regulatory provisions were considered. The proposed rulemaking is the least burdensome allowed by EPA's Implementation Rule.

**(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:**

**(a) The establishment of less stringent compliance or reporting requirements for small businesses.**

Less stringent compliance or reporting requirements are not available for small businesses. The small businesses that would be subject to this rule would already be subject to the existing NNSR regulations. The recordkeeping and reporting requirements for owners and operators of affected small businesses would not change from what is already required.

**(b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses.**

Establishment of a less stringent compliance schedule or deadline for small businesses is not possible. Existing facilities that currently have the potential to emit 100 tons per year or greater of emissions of VOCs, ammonia, or both will only become subject to the proposed regulation if there is a major modification for VOCs, ammonia, or both at the facility. The proposed rulemaking does not amend the current regulatory recordkeeping and reporting requirements.

**(c) The consolidation or simplification of compliance or reporting requirements for small businesses.**

The proposed rulemaking does not amend the current regulatory recordkeeping and reporting requirements.

**(d) The establishment of performing standards for small businesses to replace design or operational standards required in the regulation.**

The standards included in the proposed rulemaking are required by EPA's Implementation Rule. The SILs are based on EPA guidance; neither has a provision to allow a different type of standard.

**(e) The exemption of small businesses from all or any part of the requirements contained in the regulation.**

The owners and operators of small businesses may not be exempted from the proposed requirements because the proposed rulemaking was developed to satisfy the SIP Requirements Rule as promulgated by EPA. The small businesses that would be subject to this proposed rule would already be subject to the existing NNSR regulations.

**(28) If data is the basis for this regulation, please provide a description of the data, explain <u>in detail</u> how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.**

The Commonwealth's SIP must include VOC and ammonia as $PM_{2.5}$ precursors in its NNSR regulations. The basis for this regulation are the Federal requirements and guidance, as well as SCAQMD's Rule 1325, as described in Questions 9 and 12, above.

The Department reviewed the information provided by EPA in its SIP Requirements and Implementation Rules, and believes that the data used meet the acceptability standard for empirical, replicable, and testable data. Additionally, according to EPA's Scientific Integrity Policy, at https://www.epa.gov/sites/production/files/2014-02/documents/scientific_integrity_policy_2012.pdf, EPA adheres to the 2002 Office of Management and Budget (OMB) Information Quality Guidelines, the 2005 OMB Information Quality Bulletin for Peer Review, EPA's Quality Policy (CIO 2106) for assuring the collection and use of sound, scientific data and information, EPA's Peer Review Handbook for internal and external review of scientific products, and EPA's Information Quality Guidelines for maximizing the transparency, integrity and utility of information published on the Agency's website.

The following list provides more complete citations for sources referenced in this Regulatory Analysis Form:

*Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements*, 81 FR 58010 (August 24, 2016).

*Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program*, April 17, 2018, EPA memorandum, Peter Tsirigotis, Director, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC, 27711.

*Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5)*, 73 FR 28321 (May 16, 2008).

North American Industry Classification Standards, http://www.naics.com/.

*Regulatory Impact Analysis of the Final Revisions to the National Ambient Air Quality Standards for Particulate Matter*, December 2012, EPA-452/R-12-005, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711, https://www3.epa.gov/ttnecas1/regdata/RIAs/finalria.pdf.

*Revisions to California State Implementation Plan; South Coast Air Quality Management District; Stationary Source Permits*, 83 FR 39012 (August 8, 2018).

South Coast Air Quality Management District (SCAQMD), Regulation XIII - New Source Review, Rule 1325, Amended November 4, 2016, http://www.aqmd.gov/docs/default-source/rule-book/reg-xiii/rule-1325.pdf?sfvrsn=4.

**(29) Include a schedule for review of the regulation including:**

A. The length of the public comment period: 60+ days

B. The date or dates on which any public meetings or hearings will be held: Quarter 2, 2019

C. The expected date of delivery of the final-form regulation: Quarter 4, 2019

D. The expected effective date of the final-form regulation: Quarter 4, 2019

E. The expected date by which compliance with the final-form regulation will be required: Quarter 4, 2019

F. The expected date by which required permits, licenses or other approvals must be obtained: N/A

**(30) Describe the plan developed for evaluating the continuing effectiveness of the regulations after its implementation.**

The Board is not establishing a sunset date for this proposed regulation, since it is needed for the Department to carry out its statutory authority. The Department will closely monitor this proposed regulation after promulgation as a final-form regulation for its effectiveness and recommend updates to the Board as necessary.