

Implementation, Maintenance, And Enforcement of National Ambient Air Quality Standards (NAAQS)



State Implementation Plan Revision to address the Clean Air Act Section 110 Infrastructure Elements For the 2015 Ozone NAAQS

October 10, 2018

FINAL

**Delaware Department of Natural Resources and Environmental
Control, Division of Air Quality**

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1.0 Background

On October 1, 2015, the Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standard (NAAQS) for ground-level ozone at a level of 0.070 parts per million (ppm).¹ Pursuant to sections 110(a)(1) and 110(a)(2) of the Clean Air Act (CAA), each state is required to submit to the EPA a State Implementation Plan (SIP) to provide for the implementation, maintenance, and enforcement of a newly promulgated or revised NAAQS.² This SIP revision fulfills this requirement relative to the 2015 ozone NAAQS.

A SIP is a state plan that identifies how that state will attain and maintain air quality that conforms to each primary and secondary NAAQS. The SIP is a complex, fluid document containing regulations, source-specific requirements, and non-regulatory items such as plans and emission inventories.

Delaware's initial SIP was approved by the EPA on May 31, 1972. Since this initial approval, the Delaware SIP has been revised numerous times to address air quality nonattainment and maintenance issues. This has been done by updating plans and inventories, and adding new and revised regulatory control requirements. Delaware's SIP is compiled in the Code of Federal Regulations (CFR) at 40 CFR Part 52, Subpart I.

Section 2.0 of this document is a revision to Delaware's SIP. The purpose of this SIP revision is to detail how Delaware meets all of the necessary implementation, maintenance, and enforcement measures required by the CAA, specifically, CAA §110(a)(2), relative to the 2015 ozone NAAQS. Under the heading "Delaware's Plan" in Section 2.0 of this document Delaware provides a revision to its SIP to address those requirements of Section 110(a)(2)(A)-(M) of the CAA. It is a compilation of certain elements that describe how the 2015 ozone NAAQS is being implemented, maintained, and enforced. The elements of this SIP revision, once approved by EPA, will provide a federally enforceable written confirmation that Delaware will continue to comply with the Section 110(a)(1) and (2) requirements of the CAA.

Legislative authority for the Delaware air quality program relating to the responsibilities in the CAA is codified in Title 7 "Conservation" of the Delaware Code, Chapter 60 – Delaware's comprehensive water and air resources conservation law³, which gives the Delaware Department of Natural Resources and Environmental Control (DNREC) the power and duty to implement the provisions of the CAA in the State of Delaware.

Many of the miscellaneous requirements of Section 110(a)(2)(A)-(M) of the CAA relevant to the 2015 ozone NAAQS are already contained in Delaware's SIP. The following table identifies those SIP provisions. The table also identifies those infrastructure requirements which are not applicable to Delaware.

¹ 80 FR 65292, October 26, 2015

² SIPs meeting CAA §110(a)(1) and (2) are also known as "infrastructure" SIPs.

³ Referred to in this document as "7 Del. C." followed by the specific section citation (e.g., §6005).

Table 1-1 110(a)(2)(A)-(M) Requirements in the Current State of Delaware SIP

Section 110(a) element	Summary of element	Provisions in the Current Delaware SIP or recent SIP revisions Submittals	Where Codified or approved by EPA
§110(a)(2)(A)	Include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this Act.	For the 2015 ozone NAAQS, the following emission limitations and schedules contained in the regulations in Delaware’s approved SIP. <ul style="list-style-type: none"> ▪ 7 DE Admin. Code 1101, Definitions And Administrative Principles⁴ ▪ 7 DE Admin. Code 1108, Sulfur Dioxide Emissions From Fuel Burning Equipment ▪ 7 DE Admin. Code 1112, Control of Nitrogen Oxides Emissions ▪ 7 DE Admin. Code 1113, Open Burning Regulation ▪ 7 DE Admin. Code 1124, Control of Volatile Organic Compound Emissions ▪ DE Admin. Code 1126, Motor Vehicle Emissions Inspection Program ▪ 7 DE Admin. Code 1131, Low Enhanced Inspection And Maintenance Program ▪ 7 DE Admin. Code 1140, National Low Emission Vehicle Program ▪ 7 DE Admin. Code 1141, Limiting Emissions Of Volatile Organic Compounds From Consumer And Commercial Products ▪ 7 DE Admin. Code 1142, Specific Emission Control Requirements ▪ 7 DE Admin. Code 1144, Control of Stationary Generator Emissions ▪ 7 DE Admin. Code 1145, Excessive Idling Of Heavy Duty Vehicles, ▪ 7 DE Admin. Code 1146 Electric Generating Unit (EGU) Multi-Pollutant Regulation ▪ 7 DE Admin. Code 1148, Combustion Turbine Generator Emissions 	40 CFR 52.420(c)

⁴ Delaware’s air quality regulations are codified in Delaware’s administrative code, - Title 7 Natural Resources and Environmental Control, 1100 Air Quality Management Section. Citations are expressed in this document as “**7 DE Admin. Code**” followed by the specific subpart of 1100. All portions of the **DE Admin. Code** referred to in this document are already included in Delaware’s SIP.

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Section 110(a) element	Summary of element	Provisions in the Current Delaware SIP or recent SIP revisions Submittals	Where Codified or approved by EPA
§110(a)(2)(B)	Provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to - (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the Administrator.	7 DE Admin. Code 1117 Source Monitoring, Record Keeping And Reporting and 7 DE Admin. Code 1103, Ambient Air Quality Standards, provide for the establishment and operation of procedures necessary to monitor, compile and analyze data related to ambient air quality.	40 CFR 52.420(c)
§110(a)(2)(C)	Include a program to provide for the enforcement of the measures described in subparagraph (A) and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;	<p>Delaware implements its Construction and Operation Permit Program requirements under 7 DE Admin. Code 1102 and 1125. These existing permitting programs ensure that the construction and modification of both major and minor stationary sources do not cause or contribute to a violation of the ozone NAAQS.</p> <p>7 DE Admin. Code 1125 fulfills parts C and D of Title I of the CAA; governing preconstruction review and permitting of any new or modified major stationary sources of air pollutants. 1125 is approved in the Delaware SIP. Under 1125 any major source or modification that results in a net significant increase of ozone precursor pollutants must apply Best Available Control Technology (BACT) to reduce the emissions from those pollutants.</p> <p>7 DE Admin. Code 1102 provides for the evaluation and necessary regulation of any stationary source that emits equal to or greater than 0.2 lb of any air contaminant, including the precursor pollutants to ozone, in any one day.</p> <p>In addition, the measures described in CAA 110(a)(2)(A) are enforced, in part, through permits issued pursuant to 7 DE Admin. Codes 1102 and 1125.</p>	40 CFR 52.420(c)

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Section 110(a) element	Summary of element	Provisions in the Current Delaware SIP or recent SIP revisions Submittals	Where Codified or approved by EPA
§110(a)(2)(E)(iii)	(iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision;	The requirements of §110(a)(2)(E)(iii) are not applicable because Delaware does not rely on localities for specific SIP implementation.	
§110(a)(2)(F)	Require, as may be prescribed by the Administrator— (i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps by owners or operators of stationary sources to monitor emissions from such sources, (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and (iii) correlation of such reports by the state agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection;	§110(a)(2)(F)(i): Specific monitoring requirements are found throughout the State of Delaware Regulations Governing the Control of Air Pollution, to include 7 DE Admin. Codes 1117 and 1103. These requirements are included in Delaware’s SIP, as necessary. §110(a)(2)(F)(ii): Specific emission reporting requirements are found throughout the State of Delaware Regulations Governing the Control of Air Pollution, to include 7 DE Admin. Code 1117. These requirements are included in Delaware’s SIP. The regulations in Delaware’s approved SIP that are listed in 40 CFR 52.420(c) also apply to the 2015 ozone NAAQS.	40 CFR 52.420(c)
§110(a)(2)(G)	Provide for authority comparable to that in section 303 and adequate contingency plans to implement such authority;	7 DE Admin. Code 1115, Air Pollution Alert and Emergency Plan, contains emergency episode plan provisions that are currently approved in Delaware’s SIP.	40 CFR 52.420(c)

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Section 110(a) element	Summary of element	Provisions in the Current Delaware SIP or recent SIP revisions Submittals	Where Codified or approved by EPA
§110(a)(2)(I)	In the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);	<p>Part D pertains to general requirements for nonattainment areas. New Castle County is in the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE nonattainment area.</p> <p>The regulations in Delaware's approved SIP that are listed in 40 CFR Part 52, Subpart I related to nonattainment areas will continue to comply with Subpart D requirements and which could not have been approved if they had not met Subpart D requirements.</p>	
§110(a)(2)(J) (PSD)	Meet the applicable requirements of part C (relating to prevention of significant deterioration of air quality and visibility protection);	Delaware's Prevention of Significant Deterioration (PSD) requirements are promulgated in 7 DE Admin. Code 1125, Preconstruction Review.	

2.0 SIP Revision

This SIP revision addresses those requirements of Section 110(a)(2)(A)-(M) of the Clean Air Act (CAA) which have not been addressed in other SIP revisions for the 2015 ozone NAAQS. Each of the requirements of §110(a)(2) of the CAA (Subparagraphs A–M) is presented below, along with a discussion of Delaware’s plan revision to meet the requirement.

- (A) §110(a)(2)(A) Requirement:** Include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this Act.

Delaware’s Plan: Delaware has established laws and regulations that include enforceable emissions limitations and other control measures, means or techniques, as well as schedules and timetables for compliance to meet the applicable requirements of the CAA, to include the requirements associated with the 2015 and prior ozone NAAQS. See Table 1-1 under section 110(a)(2)(A). On June 12, 2015 (80 FR 33840), EPA finalized the Startup, Shutdown and Malfunction (SSM) SIP Call which identifies several provisions from many states which EPA asserts are substantially inadequate for CAA sections 302 and 110 purposes. Some provisions are inadequate for inappropriate emission exemptions, some for affirmative defenses, and some for director discretion. One of the state SIPs which contains these identified provisions is Delaware’s SIP. In 2016, Delaware revised 7 **DE Admin. Code** 1124 and 1142, with a State effective date of January 11, 2017, to remove the provisions identified in EPA’s SSM SIP Call as being substantially inadequate and inconsistent with the CAA. Subsequently, on November 21, 2016, Delaware submitted a SIP revision to address EPA’s SSM SIP Call for six of the seven Delaware regulations mentioned in the SSM SIP Call. Per EPA’s December 8, 2017 approval of Delaware’s Reasonably Available Control Technology (RACT) SIP under the 2008 ozone NAAQS, Delaware’s November 21, 2016 SSM SIP revision will be dealt with in a separate rulemaking action.⁵

At present, Delaware’s statutory authority is set out in Title 7 “Conservation” of the Delaware Code, Chapter 60 – Delaware’s comprehensive water and air resources conservation law. Legislative authority giving the Secretary of the Delaware Department of Natural Resources and Environmental Control the authority to promulgate Regulations is codified at 7 Del. C., Chapter 60. This authority is applicable to the 2015 ozone NAAQS.

- (B) §110(a)(2)(B) Requirement:** Provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the Administrator.

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Delaware's Plan: Delaware has established and currently operates appropriate devices, methods, systems and procedures necessary to monitor, compile and analyze data on ambient air quality, and upon request, makes such data available to the Administrator. Delaware will continue to operate devices, methods, systems and procedures and may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation. At present, Delaware does this as follows for the 2015 ozone NAAQS:

- Delaware maintains and operates a multi-station network of ambient monitors throughout the State to measure ambient air quality levels within Delaware for comparison to each NAAQS as required by 40 CFR Part 58. Delaware currently measures and reports ground-level ozone concentrations from monitoring sites located in Wilmington, Brandywine, Bellefonte, Lums Pond, Killens Pond, Seaford, and Lewes.
- All data is measured using the U.S. EPA approved methods as either Reference or Equivalent monitors; all monitors are subjected to the quality assurance requirements of 40 CFR Part 58; Appendix A; and all samplers are located at sites that have met the minimum siting requirements of Part 58, Appendix E. The data is submitted to the EPA's Air Quality System (AQS) system, in a timely manner in accordance to the schedule prescribed by the U.S. EPA in 40 CFR Part 58.
- In order to keep EPA informed of changes to the sampling network, Delaware provides EPA Region III with prior notification of any planned changes to the network. As needed, details of these changes and anticipated approvals of the changes are communicated to EPA. On an annual basis, Delaware sends EPA a monitoring network plan as required by 40 CFR Part 58 Section 10: Annual monitoring network plan and periodic network assessment. This plan contains all required information including site and monitor description, analysis methods, operating schedule, monitoring objectives and scale of representativeness, as well as information on any planned changes. Delaware submits data to the AQS system, in a timely manner, pursuant to the schedule prescribed by the EPA in 40 CFR Part 58.
- Delaware has and will continue to submit data to EPA's AQS in a timely manner in accordance to the schedule prescribed by the U.S. EPA in 40 CFR Part 58.

- (C) **§110(a)(2)(C) Requirement:** Include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D.

Delaware's Plan: Delaware has established and currently operates a program to provide for the enforcement of the enforceable emission limitations and other control measures, means, or techniques, as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the CAA and to regulate the modification and construction of any stationary source within areas

covered by its SIP as necessary to assure the NAAQS are achieved, including permit programs required in parts C and D. At present, Delaware, through its Division of Air Quality (DAQ), exercises its programmatic authority to utilize the enforcement powers set out in 7 Del. C. §6005 entitled “Enforcement; civil and administrative penalties; expenses”; 7 Del. C. §6013 entitled “Criminal penalties”; and 7 Del. C. §6018 entitled “Cease and desist order.” Delaware will continue to operate this program and may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation.

- (D) §110(a)(2)(D) Requirement:** Contain adequate provisions – (i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will - (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility, and (ii) insuring compliance with the applicable requirements of sections 126⁶ and 115⁷ (relating to interstate and international pollution abatement).

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- 6 §126(a) - Each plan shall (1) require each major proposed new or modified source (A) subject to Part C or D which may significantly contribute to pollution in excess of the NAAQS in any AQCR outside the State in which such source intends to locate or modify, to provide written notice to all nearby States the pollution levels of which may be affected by such source 60 days prior to the date on which commencement of construction is to be permitted by the State, and (2) identify all major existing stationary sources which may have the impact described in (1) with respect to new or modified sources and provide notice to all nearby States of the identity of such sources. (b) Any State may petition EPA for a finding that any major source or group of stationary sources emits or would emit any pollutant in violation of the prohibition of §110(a)(2)(D)(ii) or this section. (c) Notwithstanding any permit which may have been granted by the State, it shall be a violation of this section and the plan - (1) for any major proposed new or modified source with respect to which a finding has been made under subsection (b) to be constructed or to operate in violation of this section and the prohibition of §110(a)(2)(D)(ii) or this section, or (2) for any major existing source to operate more than 3 months after such finding has been made. EPA may permit the continued operation of a source beyond the expiration of the 3-month period if the source complies with the emission limitations and compliance schedules as may be provided by EPA to bring about compliance with the requirements of §110(a)(2)(D)(ii). Nothing shall be construed to preclude any such source from being eligible for an enforcement order under §113(d) after the expiration of such period during which EPA has permitted continuous operation.
- 7 §115(a) - Whenever EPA, upon receipt of reports, surveys or studies from any duly constituted international agency has reason to believe that any pollutants emitted in the US cause or contribute to pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country or whenever the Secretary of State requests it to do so, EPA shall give formal notification to the Governor of the State in which such emissions originate. (b) The EPA notice shall be deemed to be a finding under §110(a)(2)(H)(ii) which requires a plan revision with respect to so much of the applicable plan as is inadequate to prevent or eliminate the endangerment. Any foreign country so affected by such emission of pollutants shall be invited to appear at any public hearing associated with any revision of the appropriate portion of the applicable plan. (c) This section shall apply only to a foreign country which EPA determines has given the US the same rights with respect to the prevention or control of air pollution occurring in that country. (d) Recommendations issued following any abatement conference conducted prior to CAA 1977 shall remain in effect with respect to any pollutant for which no NAAQS has been established under § 109 unless EPA, after consultation with all agencies, which were party to the conference, rescinds any such recommendation.

Delaware's Plan: Delaware's SIP presently contains adequate provisions prohibiting sources from emitting air pollutants in amounts which will contribute significantly to nonattainment, or interfere with maintenance, of any NAAQS, to include the 2015 ozone NAAQS. Delaware's SIP also presently contains adequate provisions to prevent interference with measures by any other state to prevent significant deterioration of air quality or to protect visibility. Delaware may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation. At present, Delaware's legal authority is contained in the following:

- Delaware Code Title 7, Chapter 60 § 6010(c). Rules and regulations; plans. The Secretary may formulate, amend, adopt and implement, after public hearing, a statewide air resources management plan to achieve the purpose of this chapter and comply with applicable federal laws and regulations. Since 110(a)(2)(D) is in the CAA, and thus a law, Delaware has the legal authority to regulate sources of interstate transport to areas in nonattainment, or to those areas maintaining the NAAQS if they were previously nonattainment.
 - 110(a)(2)(D)(i)(I): See Section 3.0 below, for how Delaware's SIP satisfies CAA §110(a)(2)(D)(i)(I).
 - 110(a)(2)(D)(i)(II): The requirements of CAA 110(a)(2)(D)(i)(II) are met by new major sources and major modifications in Delaware being subject to Prevention of Significant Deterioration (PSD) requirements which are contained in Section 3.0 of 7 **DE Admin. Code** 1125, Preconstruction Review. The requirements of 1125, implemented through Delaware's Title V permitting program, ensure no new or modified NO_x or VOC emitting source will cause or contribute to nonattainment within Delaware or any other state.
 - The visibility prong of §110(a)(2)(D)(i)(II) has been met through two approved regional haze SIPs. Delaware's initial regional haze SIP was approved on July 19, 2011 (76 FR 42557). Delaware's "5-Year Progress" regional haze SIP was approved on May 5, 2014 (79 FR 25506).
 - 110(a)(2)(D)(ii): Nothing in Delaware's statutory or regulatory authority prohibits or otherwise interferes with Delaware's ability to exercise sections 126 and 115 of the CAA. No source or sources within the Delaware are the subject of an active finding under Section 126 of the CAA with respect to the particular NAAQS at issue. There are no final findings under section 115 of the CAA against Delaware with respect to the particular NAAQS at issue.
- (E) **§110(a)(2)(E) Requirement:** Provide (i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such

implementation plan or portion thereof), (ii) requirements that the State comply with the requirements respecting State boards under section 128,⁸ and (iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision.

The elements of §110(a)(2)(E) (iii) are not applicable to Delaware as discussed in Section 1.0 of this document.

Delaware's Plan: For §110(a)(2)(E)(i), Delaware has adequate authority under state law pursuant to 7 Del. C. Chapter 60 to carry out its SIP obligations with respect to the 2015 ozone NAAQS. DNREC does not believe that there is any prohibition in any federal or state law that would prevent it from carrying out its SIP or any portion thereof. Further, DNREC assures EPA that it has, through the State of Delaware General Fund and through the Title V fee program, and will continue to have, funding to carry out its SIP obligations. Further, DNREC believes its funding sources are sufficient to provide adequate personnel for those purposes; however, Delaware may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation.

At present Delaware fulfills this obligation by virtue of having adequate personnel and funding through the CAA §105 grant process (federal grant funds), the State of Delaware general fund (state tax revenues), and appropriated special funds collected by the State of Delaware from application fees, permit fees, renewal fees, and civil or administrative penalties or fines under 7 Del. C. Chapter 60. The Division of Air Quality is responsible for developing, implementing, and enforcing the SIP. Delaware does not anticipate the need for additional resources beyond those to be appropriated in the above manner to carry out its SIP requirements.

For § 110(a)(2)(E)(ii), Delaware finalized a SIP document that satisfies CAA §110(a)(2)(E)(ii) and § 128 by including in the SIP applicable requirements of 29 Del. C., Ch. 58, "Laws Regulating the Conduct of Officers and Employees of the State." This final document was submitted to the EPA as a SIP revision on January 11, 2013 and was approved and published in the Federal Register (FR) on April 17, 2013 (78 FR 22785).

- (F) §110(a)(2)(F) Requirement:** Require, as may be prescribed by the Administrator - (i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources, (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and (iii) correlation of such reports by the State

8 §128 (a) each plan shall contain requirements that - (1) any board or body which approves permits or enforcement orders shall have at least a majority of members who represent the public interest and do not derive any significant portion of their income from persons subject to permits or enforcement orders, and (2) any potential conflicts of interest by members of such board or body or the head of an executive agency with similar powers be disclosed. A State may adopt any requirements respecting conflicts of interest for such boards or bodies or heads of executive agencies, or any other entities which are more stringent than the requirements of (1) and (2).

agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection.

Delaware's Plan: Delaware requires that owners or operators of stationary sources monitor and submit periodic reports on the nature and amounts of NO_x and VOC emissions and emissions related-data from the sources. This may include the installation, maintenance and replacement of equipment, where appropriate. This information submitted to DNREC is available to the public at reasonable times for public inspection pursuant to Delaware law. Delaware will continue to require reporting of emissions but may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation.

Except as specifically exempted by the Delaware Freedom of Information Act, 29 Del. C. Chapter 100, Delaware makes all records, reports or information obtained by the Department or referred to at public hearings available to the public pursuant to the provisions of the Delaware Freedom of Information Act, 29 Del. C. Chapter 100.

- (G) **§110(a)(2)(G) Requirement:** Provide for authority comparable to that in section 303 and adequate contingency plans to implement such authority;⁹

Delaware's Plan: Delaware has authority comparable to that in section 303 and adequate contingency plans to implement such authority, but may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation.

7 Del. C. § 6003(a)(1) requires a permit from the DNREC Secretary prior to discharging any air contaminant. 7 Del. C. § 6002(2) defines air contaminant essentially as any substance other than uncombined water. 7 Del. C. § 6005 allows the Secretary to seek a preliminary or permanent injunction or temporary restraining order for any discharge of an air contaminant without a permit, and issue cease and desist orders for violations (7 Del. C. § 6018). Thus, it necessarily follows that any discharge of an air contaminant, to include precursor pollutants to ozone, that would cause imminent & substantial endangerment to the health, safety and welfare of the people of the State of Delaware or

⁹ Sec. 303- Notwithstanding any other provisions of this Act, the Administrator upon receipt of evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to public health or welfare, or the environment, may bring suit on behalf of the United States in the appropriate United States District court to immediately restrain any person causing or contributing to the alleged pollution to stop the emission of air pollutants causing or contributing to such pollution or to take such other action as may be necessary. If it is not practicable to assure prompt protection of public health or welfare or the environment by commencement of such a civil action, the Administrator may issue such orders as may be necessary to protect public health or welfare or the environment. Prior to taking any action under this section, the Administrator shall consult with appropriate State and local authorities and attempt to confirm the accuracy of the information on which the action proposed to be taken is based. Any order issued by the Administrator under this section shall be effective upon issuance and shall remain in effect for a period of not more than 60 days, unless the Administrator brings an action pursuant to the first sentence of this section before the expiration of that period. Whenever the Administrator brings such an action within the 60-day period, such order shall remain in effect for an additional 14 days or for such longer period as may be authorized by the court in which such action is brought.

the environment would constitute a violation and thus a sufficient basis for the Secretary to seek an injunction or temporary restraining order to halt the violation.

- (H) **§110(a)(2)(H) Requirement:** Provide for revision of such plan - (i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and (ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this Act.

Delaware's Plan: Delaware will review and revise its SIP from time to time as may be necessary to take account of revisions of such primary or secondary NAAQS or the availability of improved or more expeditious methods of attaining such standard and whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the NAAQS which it implements or to otherwise comply with any additional requirements established under the CAA.

- (I) **§110(a)(2)(I) Requirement:** In the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to non-attainment areas).

Delaware's Plan: According to the EPA's interpretation of the CAA this element does not need to be addressed in the context of an infrastructure SIP submission. Regardless, for the 2015 ozone NAAQS, Delaware's SIP or recent SIP revisions already contain elements addressing applicable part D requirements as discussed in Table 1-1 of Section 1.0 of this document.

- (J) **§110(a)(2)(J) Requirement:** Meet the applicable requirements of section 121 (relating to consultation), section 127 (relating to public notification), and part C (relating to prevention of significant deterioration of air quality and visibility protection).¹⁰

¹⁰ §121. - In carrying out requirements for plans to contain - (1) any transportation controls, air quality maintenance plan requirements or preconstruction review of direct sources of pollution, or (2) any measure referred to - (A) in part D), or (B) in part C, and in carrying out the requirements of §113(d), the State shall provide a satisfactory process of consultation with general purpose local governments, designated organizations of elected officials of local governments and any FLM having authority over Federal land to which the State plan applies. Such process shall be in accordance with regulations promulgated by EPA. Only a general purpose unit of local government, regional agency, or council of governments adversely affected by action of EPA approving any portion of a plan may petition for judicial review.

§127. (a) - Each plan shall contain measures to regularly notify the public of when any NAAQS is exceeded or was exceeded during the preceding year, to advise the public of health hazards associated with such pollution, and to enhance awareness of measures which can be taken to prevent the standards from being exceeded and ways in which the public can participate in regulatory and other efforts to improve air quality.

Delaware's Plan: Delaware's SIP presently contains adequate provisions to meet the applicable requirements of section 121 (relating to consultation), section 127 (relating to public notification), and part C (relating to prevention of significant deterioration of air quality and visibility protection) as it relates to the 2015 ozone NAAQS; but may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation. At present, Delaware does so utilizing the following:

- **7 DE Admin. Code 1132**, Transportation Conformity, provides a legal platform for the various consultation procedures that have been developed between DNREC, the Delaware Department of Transportation (DELDOT), and the Metropolitan Planning Organizations (MPOs). The MPOs provide a forum for consultation with local governments. Delaware's MPOs are: the Wilmington Area Planning Council (WILMAPCO), Kent County MPO, and the Salisbury-Wicomico MPO. Regional planning organizations provide the forum for inter-state consultations.
- All SIP revisions and new/amended regulations undergo public notice and hearing, pursuant to 7 Del. C. Chapters 29 and 60, which include publication in the newspapers and in the Delaware Register, and which have allowed for comment by both the public and local political subdivisions. Delaware believes the public notice and hearing processes also fulfill the section 121 consultation process. The submitted attainment plans and regulations in the approved Delaware SIP specify the organizations responsible for implementing and enforcing the plans.
- DNREC makes real-time and historical air quality information available on its website. All relevant SIPs and plans to achieve the NAAQS contain public notification provisions related to air monitoring levels such as Ozone Action Days, Air Quality Action Days, and DNREC's website. DNREC provides extended range air quality forecasts, which give the public advanced notice of air quality events. This advance notice allows the public to limit their exposure to unhealthy air and enact a plan to reduce pollution at home and at work. DNREC forecasts daily ozone and particle levels and issues e-mails to the public, businesses and the media via e-mail forecasts and notifications are free to the public.
- PSD requirements necessary to implement the 2015 ozone NAAQS are already SIP approved and implemented through the requirements of 7 **DE Admin. Code 1125**, Preconstruction Review.

(K) **§110(a)(2)(K) Requirement:** Provide for - (i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and (ii) the submission, upon request, of data related to such air quality modeling to the Administrator.

Delaware's Plan: Delaware has the authority and capability to conduct air quality

modeling in order to assess the effect on ambient air quality of relevant pollutant emissions, and will continue to perform modeling as necessary, but may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation. Delaware will continue to submit to the EPA air quality modeling data as part of Delaware's relevant SIP submissions, permit actions,¹¹ and through federal grant commitments or in other ways that EPA may request.

- (L) §110(a)(2)(L) Requirement:** Require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover - (i) the reasonable costs of reviewing and acting upon any application for such a permit, and (ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under Title V.

Delaware's Plan: In a manner consistent with Delaware law, Delaware will continue to require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover (i) the reasonable costs of reviewing and acting upon any application for such a permit, and (ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under Title V pursuant to Delaware law. Delaware currently fulfills this requirement under the enabling authority of 7 Del. C. §S 6095 to 6099 and Title V fee legislation that currently is renewed every three years. Delaware has a fully approved Title V operating permits program. See paragraphs (b) and (c) under "*Delaware*" in Appendix A to 40 CFR Part 70—Approval Status of State and Local Operating Permits Programs. Delaware may make changes that it believes in its discretion are appropriate, while continuing to fulfill this obligation.

- (M) §110(a)(2)(M) Requirement:** Provide for consultation and participation by local political subdivisions affected by the plan.

Delaware's Plan: Delaware will continue to provide for consultation and participation by local political subdivisions affected by the SIP pursuant to the public notice laws found in 7 Del. C. § 6006 and 6010 and 29 Del. C. Chapters 10003, 10004 and 10115, as applicable. Furthermore, all SIP revisions undergo public notice and hearing which have allowed for comment by the public which includes local political subdivisions. The public notice and hearing processes fulfill the requirements for consultation with local political subdivisions affected by the SIP.

¹¹ Permit modeling requirements are specified in Section 3.0 of 7 **DE Admin. Code** 1125, Requirements for Preconstruction Review, as approved by EPA on October 2, 2012 (77 FR 60053).

3.0 Demonstration of Adequate Provisions in SIP to Address Transport

Delaware has been nonattainment for the pollutant ozone since a standard was first established in 1971. Over the past 45 years, Delaware has learned that transport is very significant relative to ozone, and that the only way to reduce the elevated ambient ozone concentrations is to reduce the nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions that are causing them. Over the last 27 years Delaware has adopted and implemented SIP provisions that cover all NO_x and VOC emitting sources and source categories, and all such emissions in Delaware are now well-controlled. These SIP provisions have eliminated Delaware's significant contribution to both its own unhealthy air quality, and the air quality of all downwind areas.

CAA §110(a)(2)(D) requires Delaware's SIP to *“Contain adequate provisions – (i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will - (I) contribute significantly to non-attainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility, (ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement).”*

Based upon EPA's transport memorandum released in March 2018,¹² and the flexibilities for states in developing their “good neighbor SIPs” discussed therein, the provisions in Delaware's SIP are demonstrated to be adequate provisions which satisfy the CAA §110(a)(2)(D)(i)(I) relative to the 0.070 ppm ozone NAAQS. This SIP revision further demonstrates how Delaware's SIP satisfies CAA §110(a)(2)(D)(i)(I).

3.1 Delaware's SIP includes measures that cover its entire emissions inventory

A national emissions inventory (NEI) is a comprehensive emissions inventory that quantifies the NO_x and VOC emissions from every source or other type of emitting activity within each state in the United States. Periodic Emission Inventories (PEI) are developed every three years, with 2014 being Delaware's most recently completed inventory. Delaware's emissions inventory encompasses all emissions that could violate CAA §110(a)(2)(D)(i)(I) with respect to the ozone NAAQS. EPA's 2014 NEI V2 NO_x and VOC emissions for Delaware¹³ were sorted from the highest to lowest facility/source category, and are summarized in Chart 3-1 and Chart 3-2 below.

Appendix A provides details NO_x and VOC emissions from Delaware in the 2014 NEI V2 inventory. Included in Appendix A is every Delaware stationary facility/source category with

12 Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018. <https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015>

13 ftp://newftp.epa.gov/air/nei/2014/data_summaries/2014v2/

emissions equal to or greater than 25 tons per year (tpy) of either NO_x or VOC, and which altogether made up the top 99% of Delaware's 2014 NO_x and VOC inventory. Appendix A is generally sorted from the largest facility/source category, to the smallest, based on the 2014 NEI V2 emissions for Delaware. For each source or source category in Appendix A the current applicable Delaware control measures are discussed, along with any identified additional measures that could be adopted into Delaware's SIP. The information in Appendix A demonstrates that Delaware's SIP includes measures that cover all non-trivial NO_x and VOC sources in the State.

Chart 3-1: Delaware 2014 NEI V2 NO_x Emissions

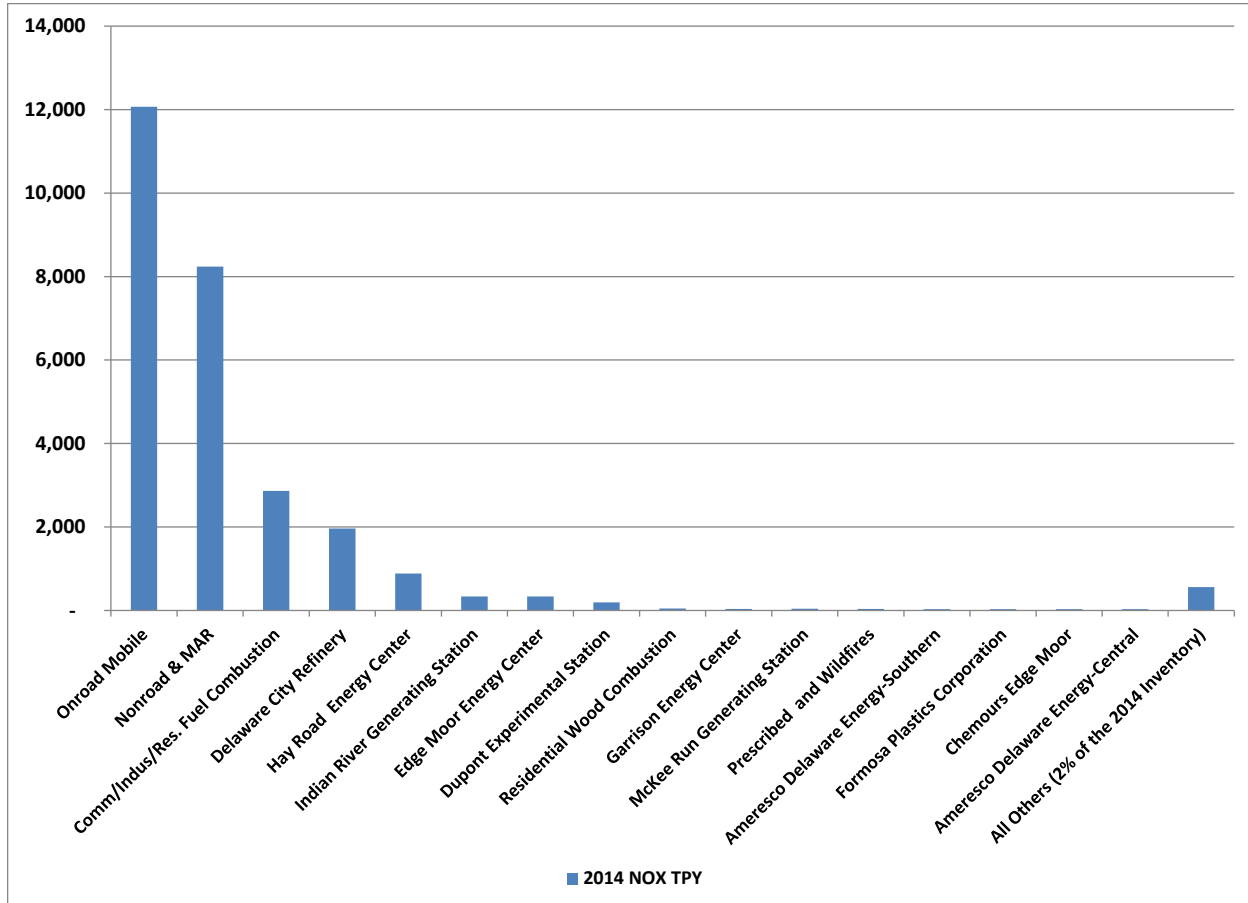
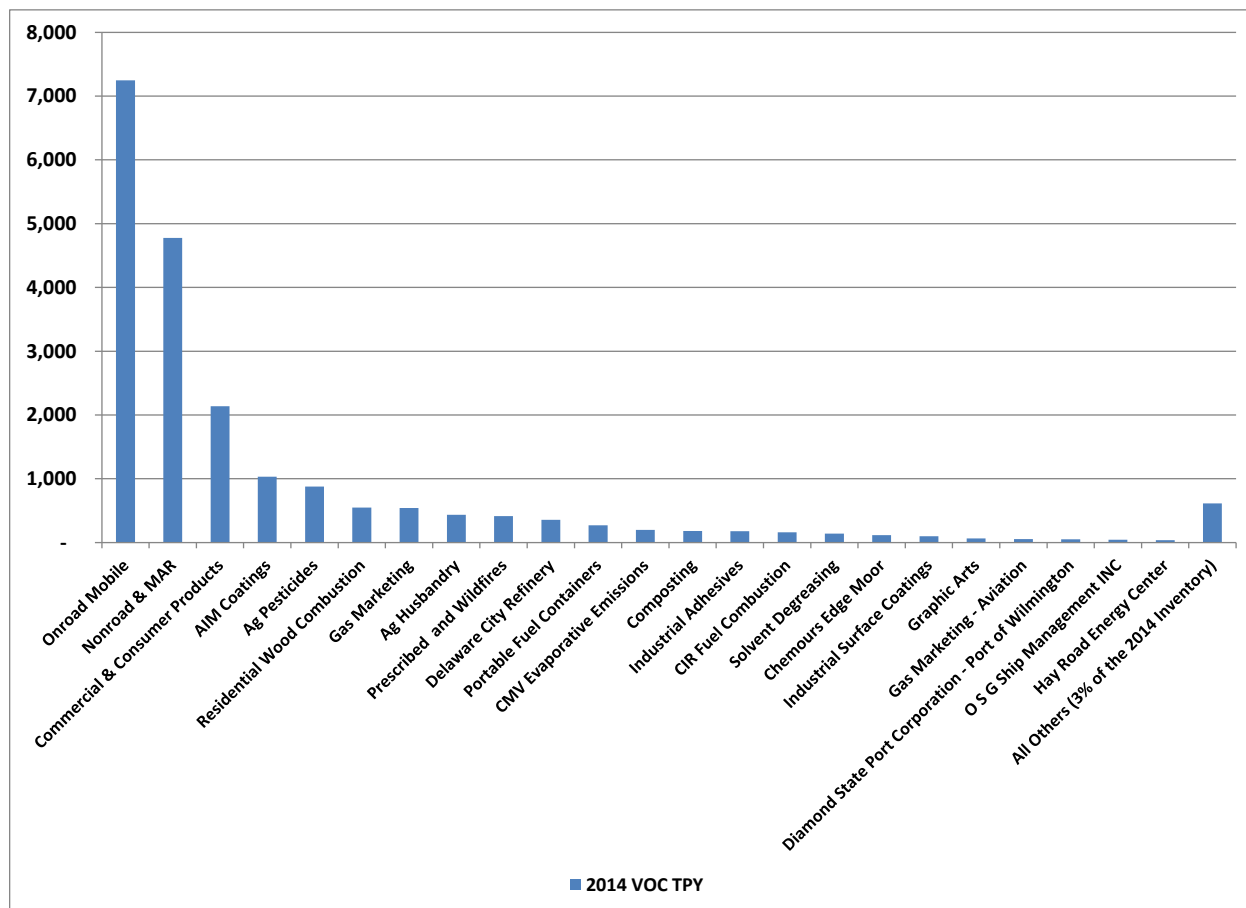


Chart 3-2: Delaware 2014 NEI V2 VOC Emissions



3.2 Implementation of the measures in Delaware's SIP has been effective, and has resulted in significant emissions reductions.

Delaware's adjusted¹⁴ 1990 base year SIP inventory emissions totaled 95,203 tpy, and 82,718 tpy for NO_x and VOC, respectively. Delaware's 2005 PEI demonstrates that emissions were reduced to 45,250 tpy and 30,626 tpy, for NO_x and VOC, respectively.¹⁵ This reduction (i.e., a 52% reduction in NO_x emissions and a 63% reduction in VOC emissions) was largely attributable to Delaware's implementation of 7 **DE Admin. Code 1125** (NSR), 7 **DE Admin. Code 1112** (NO_x RACT), 7 **DE Admin. Code 1124** (VOC RACT), and 7 **DE Admin. Code 1126** and 1131 (vehicle I/M) control measures. Delaware's 2008 NO_x and VOC emissions were further reduced to 44,760 tpy and 26,897 tpy, respectively, and are most recently estimated to be 27,721 tpy NO_x and 20,566 tpy VOC in 2014, as shown in Table 3-1 and Chart 3-3.

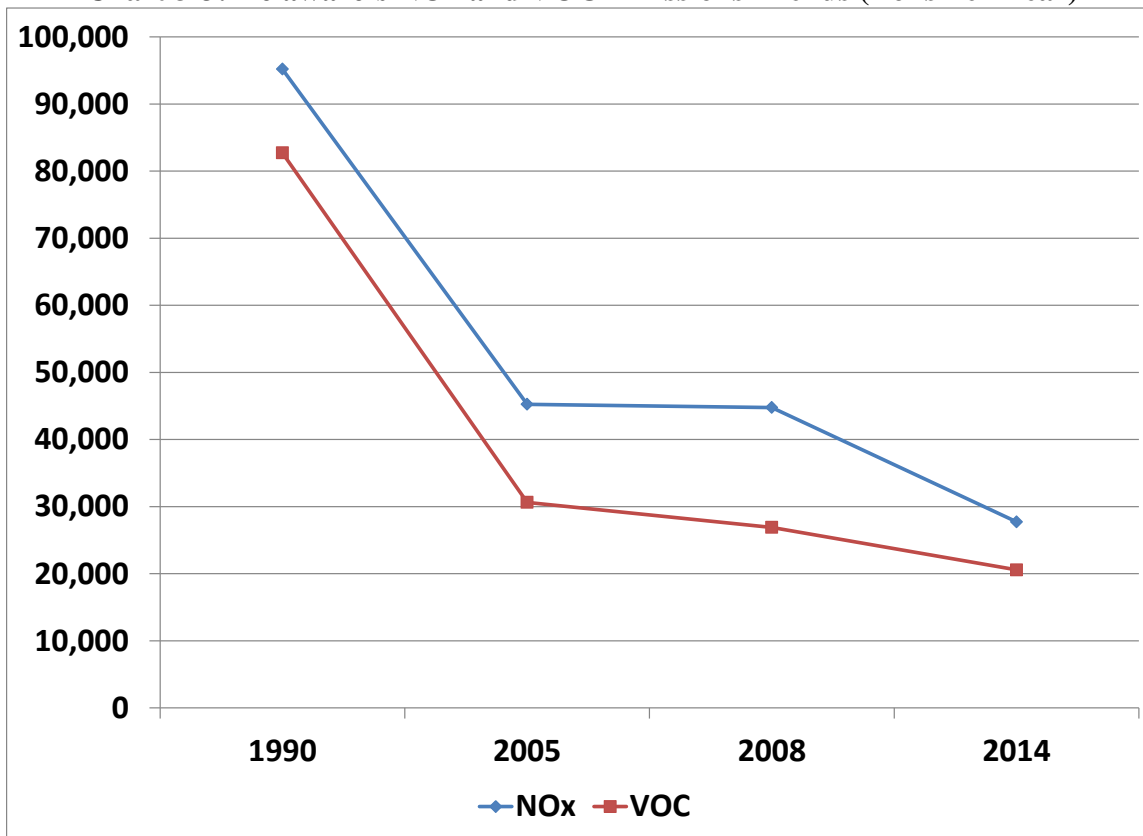
¹⁴ Delaware's actual 1990 base year SIP inventory emissions totaled 77,281 tpy and 52,493 tpy for NO_x and VOC, respectively. To enable direct comparison to Delaware's 2005 PEI, the on-road and non-road categories were adjusted using EPA's MOBILE6.2 and 2004 non-road models.

¹⁵ These NO_x and VOC reductions helped to reduce ozone concentrations under the 1-hour ozone standard. Delaware attained the 1-hour ozone NAAQS in 2005.

Table 3-1: Delaware's NO_x and VOC Emissions Trends (Tons Per Year)

	1990	2005	2008	2014
NO_x	95,203	45,250	44,760	27,721
VOC	82,718	30,626	26,897	20,566

Chart 3-3: Delaware's NO_x and VOC Emissions Trends (Tons Per Year)



This data clearly demonstrates that Delaware's current SIP measures are very effective at reducing emissions that contribute to ozone formation. By extension, Delaware's SIP measures have reduced the impact of Delaware emissions on the attainment and maintenance of air quality standards in both Delaware and downwind states.

3.3 Measures in Delaware's SIP Which Cover EGUs

The EPA has defined emissions that contribute significantly under CAA §110(a)(2)(D)(i)(I) in various ways, all of which have substantially limited such emissions to EGUs. In historic NO_x budget trading programs EPA's methodology defined significant contribution as those emissions that could be removed with the use of "highly cost effective" EGU controls. Under the Cross-State Air Pollution Rule (CSAPR) Update, EPA determined that the emissions contributing significantly to nonattainment or interfering with maintenance were those that could be controlled with \$1,400/ton cost on EGUs, based on an analysis that accounted for both cost and air quality improvement. Under any cost threshold, EGU's in Delaware are well controlled,

represent BACT, and looking solely at EGUs Delaware has satisfied §110(a)(2)(D)(i)(I).

Delaware has measures in its SIP that control each of its EGUs (i.e., 7 **DE Admin. Code** 1112, 1146, and 1148). Pertinent characteristics of these measures are that they apply on a stack-by-stack basis (i.e., trading is not allowed), they require compliance on a short-term basis (i.e., generally a 24-hour or shorter rolling average), and they require controls on all EGUs, including those with high daily emissions despite having small annual mass emissions (e.g., peaking units). In addition, Delaware has measures in its SIP to prevent smaller stationary reciprocating engine driven generators from operating as EGUs without controls (i.e., 7 **DE Admin. Code** 1144). Detail on Delaware's current EGU control measures is presented in the SIP revisions associated with the adoption of 7 **DE Admin. Code** 1112, 1144, 1146, and 1148.

Appendix A indicates that Delaware could achieve, in the aggregate, an additional estimated 841 tpy reduction in NO_x from installing additional EGU controls, as described below:

- At about \$7,800/ton Delaware could reduce NO_x emissions by 562 tpy
- At \$18,000/ton by an additional 113 tpy
- At over \$25,000/ton, by an additional 166 tpy

This high cost of additional EGU control in Delaware is consistent with, if not more severe than, the EPA CSAPR Update analysis. It can be seen that additional reductions will not be realized from Delaware EGU's until the control cost exceeds about \$7,200/ton, at which time gas fired combined cycle units in Delaware would install selective catalytic reduction (SCR) control technology.

Delaware concludes that because the cost is very high, the potential air quality benefit is low (i.e., the potential to further reduce significant mass emissions from Delaware's EGUs is low), and because each of Delaware's EGUs are already well controlled, these additional reductions beyond Delaware's current SIP measures are not feasible in the context of this SIP, and are not required under §110(a)(2)(D)(i)(I).

3.4 Measures in Delaware's SIP Which Cover Non-EGUs

§110(a)(2)(D)(i)(I) covers a scope broader than EGUs. CAA §110(a)(2)(D)(i)(I) requires a SIP to "Contain adequate provisions prohibiting...any source or other type of emissions activity...from emitting any air pollutant in amounts which will contribute significantly..." Ozone and ozone precursors are transported and can contribute to ozone concentrations in downwind areas regardless of their source. To satisfy §110(a)(2)(D) a SIP must contain provisions that cover VOC and NO_x emissions from any source or type of activity within the state. A state has not satisfied §110(a)(2)(D) until 1) the total emissions from the state no longer impact any other nonattainment or maintenance area by more than one percent of the NAAQS, or 2) there are adequate provisions in the SIP that cover sources or type of activities in the State.

Appendix A demonstrates that Delaware has measures in its SIP that cover all nontrivial VOC and NO_x emitting activities. Section 3.2 above demonstrates that these measures are effective. In Appendix A Delaware has identified non-EGU measures that could achieve further reductions,

but at great costs. For example, the cost of additional control for non-EGU boilers in Delaware is estimated:

- At \$25,000/ton, Delaware could reduce NO_x by an additional 183 tpy.
- At over \$25,000/ton, Delaware could reduce NO_x by an additional 32 tpy.

While revising Delaware's RACT regulation to lower the size thresholds would result in further emissions reductions, the cost of NO_x control would be over \$30,000/ton. Delaware concludes that because the cost is very high, the potential air quality benefit is low (i.e., the potential to reduce significant mass emission is low), and because each of these non-EGU sources/source categories are already well-controlled, these additional reductions beyond Delaware's current SIP measures are not feasible in the context of this SIP, and are not required under §110(a)(2)(D)(i)(I).

4.0 Conclusion

This SIP revision demonstrates that 1) the Delaware SIP contains measures that cover every non-trivial VOC and NO_x emitting source and source category in the State, and 2) implementation of these measures has resulted in significant emission reductions in Delaware. The analysis in Section 3.2 above shows that DE has reduced emissions by 67,482 tpy NO_x and 62,152 tpy VOC between 1990 and 2014. Delaware concludes that the Delaware emissions that would significantly contribute to nonattainment and maintenance in downwind areas are those VOC and NO_x emissions that are reduced by the following adequate measures in Delaware's SIP:

- Centralized Vehicle Inspections and Maintenance (I/M) requirements to include testing of older, high emitting vehicles, to significantly reduce on-road mobile emissions (7 **DE Admin. Code** 1126 and 1131, which will soon be expanded statewide)
- Stringent Reasonable Available Control Technology (RACT) on all major nitrogen oxides (NO_x) and volatile organic compound (VOC) stationary sources, which establishes a baseline level of control and achieves large, cost effective reductions (7 **DE Admin. Code** 1112 and 1124)
- Best Available Control Technology (BACT) has been required on all existing coal and residual oil fired EGUs, and large industrial boilers, which ensure the largest emitters are well controlled (7 **DE Admin. Code** 1142 and 1146)
- BACT on all sources with high daily emissions, despite their low annual emissions, which ensure all emissions on ozone days are controlled (7 **DE Admin. Code** 1144 and 1148).
- Adoption of regional measures to reduce emissions from large non-point source categories that have been recommended by the Ozone Transport Commission (7 **DE Admin. Code** 1141, Sections 1, 2 and 4)
- Major and minor new source review, with minor source thresholds set at 5 tpy for ozone precursor emission, which ensures new units are well-controlled (7 **DE Admin. Code** 1125)

Additional opportunities for further controlling emissions are either outside of Delaware's regulatory authority, impractical as a Delaware-only initiative, or carry an additional incremental cost in excess of \$5,000 per ton. We are recommending this cost threshold to the EPA as criteria for evaluating all transport SIPs. Additional control measures from Delaware should not be required under CAA §110(a)(2)(D)(i)(I).

Based on the information provided, Delaware fully complies with the requirements of §110(a)(2)(A) through §110(a)(2)(M) for the 2015 ozone NAAQS.