

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Pre-Hearing SIP Submittal: State Implementation Plan Infrastructure Confirmation
for the 2008 Revised Ozone National Ambient Air Quality Standard for
CAA Section 110(a)(2)(D)(i)(I) Prongs 1 and 2**

On March 27, 2008, the United States Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standard (NAAQS) for ozone. *See* 73 Fed. Reg. 16,436 (Mar. 27, 2008). Pursuant to Clean Air Act (CAA) section 110(a)(1), states must address basic State Implementation Plan (SIP) “infrastructure” elements listed under section 110(a)(2) of the CAA within three years of EPA’s promulgation of a revised NAAQS. EPA has historically referred to the submittals in which states address these requirements as “infrastructure SIPs.”¹

On October 31, 2011, the Florida Department of Environmental Protection (Department) submitted its infrastructure SIP for the 2008 ozone NAAQS. At that time, Florida was subject to a Federal Implementation Plan (FIP) under the Cross-State Air Pollution Rule (CSAPR) for the 1997 ozone NAAQS, which had not been fully implemented at that time. Although the Department expected the reductions occurring under the CSAPR FIP would help mitigate any potential out-of-state impacts, the Department did not have data showing whether Florida contributed to out-of-state nonattainment or maintenance areas under the 2008 ozone NAAQS. Due to this uncertainty, EPA did not approve the CAA Section 110(a)(2)(D)(i)(I) prongs 1 and 2 elements for Florida.²

On October 26, 2016, EPA published in the Federal Register the CSAPR update for the 2008 ozone NAAQS. EPA’s modeling demonstrations found that Florida did not significantly contribute to any out-of-state nonattainment or maintenance area as it relates to the 2008 ozone

¹ The term “infrastructure SIP” does not appear in the statute, but EPA uses the term to distinguish this particular type of SIP submission designed to address basic structural requirements of a SIP from other types of SIP submissions designed to address different requirements, such as “nonattainment SIP” submissions required to address the nonattainment planning requirements of part D, “regional haze SIP” submissions required to address the visibility protection requirements of CAA section 169A, New Source Review (NSR) permitting program submissions required to address the requirements of parts C and D.

² *See* 78 Fed. Reg. 65,560 (November 1, 2013). Footnote 3 in the partial approval of Florida’s infrastructure SIP for the 2008 ozone NAAQS states:

Today’s final rule does not address section 110(a)(2)(D)(i)(I) (the significant contribution to nonattainment prong or the interfere with maintenance prong) for the 2008 8-hour Ozone NAAQS, which as described in greater detail below, EPA does not presently view as a “required submission” consistent with the DC Circuit Court’s recent opinion in *EME City Generation v. EPA*, 696 F.3d 7, 31 (DC Cir. 2012). In that opinion, the DC Circuit Court concluded that a SIP submission to address section 110(a)(2)(D)(i)(I) for a new or revised NAAQS cannot be considered a “required” SIP submission until EPA has first defined a state’s obligations pursuant to that section. *See EME Homer City*, 696 F.3d at 32 (“A SIP logically cannot be deemed to lack a ‘required submission’ or deemed to be deficient for failure to meet the good neighbor obligation before EPA quantifies the good neighbor obligation.”).

NAAQS. Because of this finding, EPA also rescinded the FIP that was in place for Florida for the 1997 ozone NAAQS.

Section 403.061(35), Florida Statutes, grants the Department the broad authority to “[e]xercise the duties, powers and responsibilities required of the state under the federal [CAA], 42 U.S.C. ss. 7401 et seq” and “implement the programs required under that act in conjunction with its other powers and duties.” By virtue of this statute, the Department has the authority and responsibility to act on behalf of the State of Florida to develop and revise a SIP as required by CAA section 110(a)(1) and to ensure that the SIP adequately addresses the required infrastructure element prescribed under CAA section 110(a)(2)(D)(i)(I) prongs 1 and 2.

The Department hereby confirms that Florida’s SIP has adequate provisions to prohibit sources or other emission activities within the state from emitting ozone in amounts that would contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to the 2008 ozone NAAQS. As such, Florida’s SIP adequately addresses the infrastructure elements required by section 110(a)(2)(D)(i)(I) prongs 1 and 2 of the CAA with respect to the implementation of the 2008 ozone NAAQS. The Department further confirms that this element of Florida’s approved SIP has undergone public notice in accordance with the requirements of 40 C.F.R. 51.102. This document demonstrates the correlation between the section 110(a)(2)(D)(i)(I) prongs 1 and 2 infrastructure elements and the Florida Statutes and SIP-approved Florida rules that address each such element.

Rules and Statutes

Florida’s existing SIP consists largely of Florida Administrative Code (F.A.C.) rules adopted by the Department and approved by EPA through the SIP revision process. The complete list of Department rules approved and incorporated by reference into Florida’s SIP is published by EPA in the United States Code of Federal Regulations at 40 CFR 52.520(c). The list includes each F.A.C. rule section number and effective date, with a corresponding EPA approval date for each rule section. The complete F.A.C. rules are available online at the Florida Department of State website (<https://www.flrules.org/default.asp>) and at the Department’s Division of Air Resource Management website (<http://www.dep.state.fl.us/air/rules/current.htm>).

There are five rule chapters of the F.A.C. that contain rule sections that directly or indirectly address implementation of the 2008 ozone NAAQS:

- **Chapter 62-204, F.A.C., Air Pollution Control – General Provisions.** All EPA regulations cited throughout the Department’s air pollution rules are adopted and incorporated by reference in Rule 62-204.800, F.A.C. The purpose and effect of each such adopted regulation is determined by the context in which it is cited. This rule chapter is referenced in the discussion below regarding the requirements in section 110(a)(2)(D)(i) of the CAA.
- **Chapter 62-210, F.A.C., Stationary Sources – General Requirements.** This rule chapter establishes definitions and the general requirements for major and minor stationary sources of air pollutant emissions. It provides criteria for determining the need

for an owner or operator to obtain Department authorization by permit to conduct certain activities involving sources of air pollutant emissions, and it establishes reporting requirements and requirements relating to estimating emissions. This chapter also sets forth special provisions related to compliance monitoring, stack heights, circumvention of pollution control equipment, and excess emissions. This rule chapter is referenced in the discussion below regarding the requirements in section 110(a)(2)(D)(i) of the CAA.

- **Chapter 62-212, F.A.C., Stationary Sources – Preconstruction Review.** This rule chapter establishes the preconstruction review requirements for proposed new emissions units, new facilities, and modifications to existing units and facilities. The requirements of this chapter apply to those proposed activities for which an air construction permit is required. This chapter includes general preconstruction review requirements and specific requirements for emissions units subject to both attainment and nonattainment area preconstruction review (i.e., New Source Review). This rule chapter is referenced in the discussion below regarding the requirements in section 110(a)(2)(D)(i) of the CAA.
- **Chapter 62-296, F.A.C., Stationary Sources – Emission Standards.** This rule chapter establishes emission limiting standards and compliance requirements for stationary sources of air pollutant emissions. It establishes emission limitations for specific categories of facilities and emissions units, including reasonably available control technology (RACT) requirements.
- **Chapter 62-297, F.A.C., Stationary Sources – Emissions Monitoring.** This rule chapter establishes test procedures for determining the compliance of air pollutant emissions units with emission limiting standards.

As mentioned above, the Department has adopted many of the current SIP-approved rules under the authority of section 403.061(35), Florida Statutes. Beyond this broad authority to implement the CAA, the Department relies on other Florida Statutes for authority to conduct various air program activities such as permitting, monitoring, fee collection, compliance assurance, enforcement, and emergency response. These statutes are essential to Florida's implementation of the ozone NAAQS and are referenced in the discussion below regarding the requirements of CAA section 110(a)(2)(D)(i)(I). For the most part, these Florida Statutes are referenced only to confirm the Department's legal authority to implement the SIP. Certain statutes have, however, been approved and incorporated into Florida's SIP and are noted as such. The complete Florida Statutes are available online at <http://www.leg.state.fl.us/Statutes>.

Section 110(a)(2)(D)(i)(I) – Interstate Transport – Implementing Rules and Statutes

110(a)(2)(D)(i)(I) – Interstate transport: SIPs must include provisions prohibiting any source or other type of emissions activity within the state emitting any air pollutant in amounts which will contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any such primary or secondary NAAQS.

- **Rules:** SIP-approved sections of Chapters 62-204, 62-210, and 62-212, F.A.C., require any new major source or major modification to undergo PSD or NNSR permitting and thereby demonstrate that it will not cause or contribute to a violation of any NAAQS or PSD increment in Florida or any other state and require that the owner or operator

provide an analysis of additional impacts of the source or modification, including impacts on visibility. All new or modified major sources of ozone precursor emissions (NO_x and VOCs) will apply the Best Available Control Technology (BACT) to reduce NO_x and VOC emissions in accordance with the CAA and EPA PSD permitting requirements.

- **Statutes:** Section 403.061(14), Florida Statutes, authorizes the Department to “[e]stablish a permit system whereby a permit may be required for the operation, construction or expansion of any installation that may be a source of air pollution...” (with the definition of “pollution” provided in Section 403.031(7), Florida Statutes), and Section 403.087, Florida Statutes, provides specific requirements for implementation of a permit system for operation of reasonably expected sources of air pollution.
- **Note 1:** EPA has completed an analysis of state-to-state 2017 contributions to projected ozone nonattainment and maintenance areas associated with the 2008 ozone standard in the final Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS. *See* 81 Fed. Reg. 74,504 (Oct. 26, 2016). In the final modeling analysis, EPA determined that if updated halogen chemistry is considered, Florida’s contribution to downwind nonattainment and maintenance receptors is below the 1% significance threshold. Studies cited by EPA show that halogen chemistry decreases ozone levels during multi-day transport of air over the Gulf of Mexico, and EPA demonstrated that Florida’s air parcel trajectories traveled over the Gulf of Mexico before reaching downwind receptors.³ As such, Florida asserts that it meets its obligation under this section for the 2008 ozone NAAQS. In addition, EPA has also completed an analysis of state-to-state 2023 contributions to projected ozone nonattainment and maintenance areas associated with the 2015 ozone standard in the Notice of Availability of the Environmental Protection Agency’s Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone National Ambient Air Quality Standard (NAAQS). *See* 82 Fed. Reg. 1,733 (Jan. 6, 2017). In this modeling analysis, EPA determined that the maximum Florida contribution to any projected ozone nonattainment area and to any projected maintenance area was 0.49 ppb and 0.22 ppb, respectively. These contributions are well below the significance criteria of 0.70 ppb and indicate that Florida is projected to continue to have an insignificant impact on downwind nonattainment and maintenance receptors in the future.
- **Note 2:** Total Florida NO_x and non-biogenic VOC emissions have declined by 52% and 44%, respectively, since the year 2000. (Appendix 1 to this submittal provides source category-specific NO_x and VOC emissions trends for the industrial, nonpoint, on-road, and non-road source categories). These emissions are expected to continue to decrease in the coming years.
- **Note 3:** Monitored design value trends for ozone throughout the state reflect the decline in precursor emissions (NO_x and VOCs) referenced under Note 2. (*See* Appendix 2 to this submittal).

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³ See EPA’s [Air Quality Modeling Technical Support Document for the Final Cross State Air Pollution Rule Update](#).

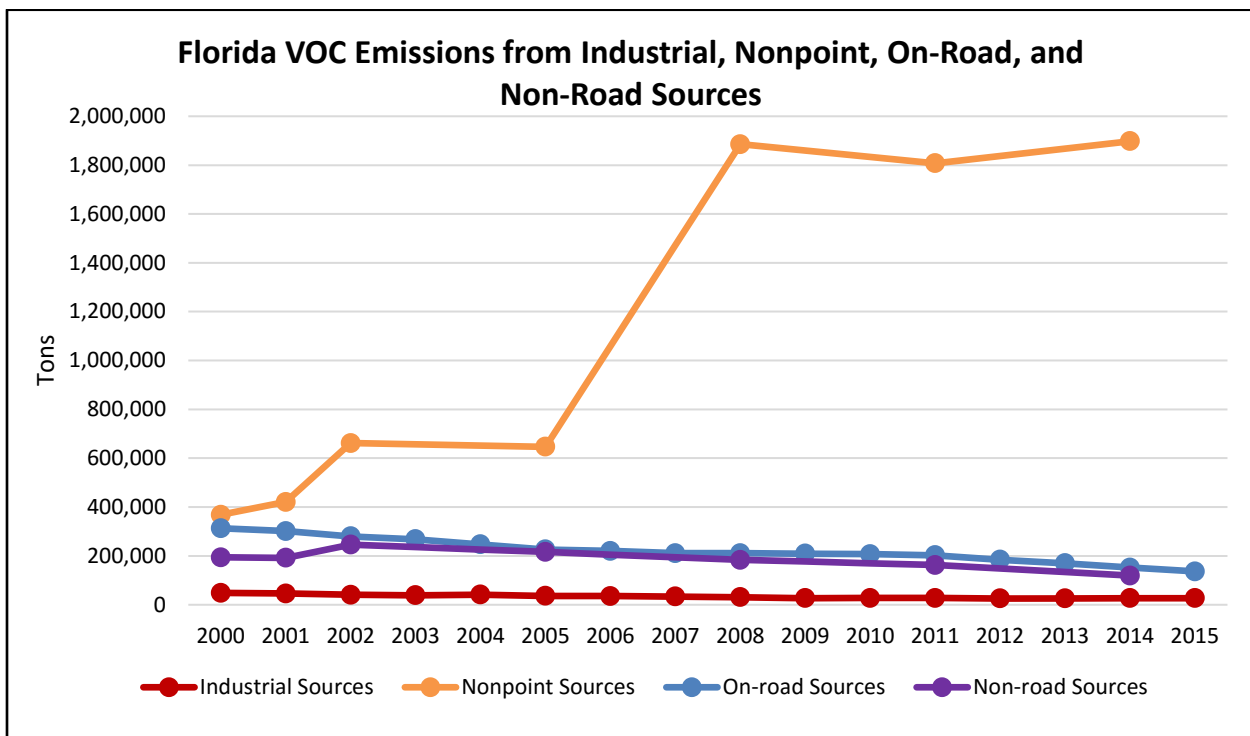
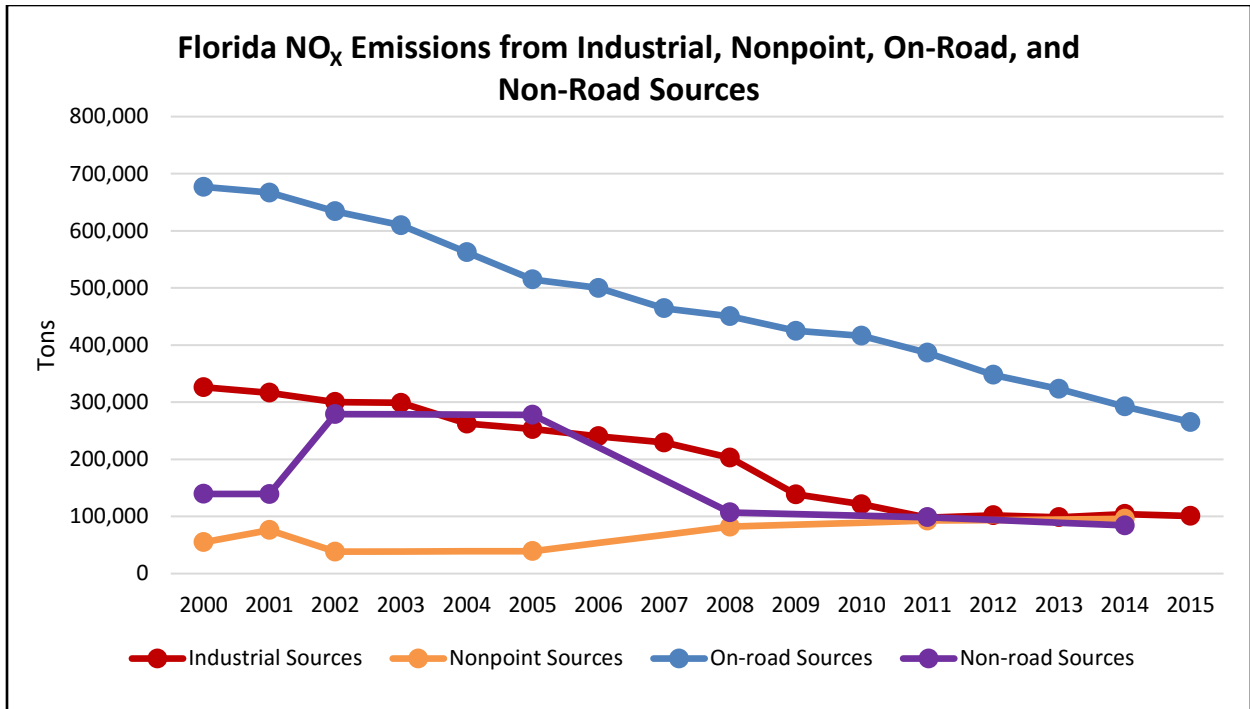
Appendix 1

Florida Statewide Source-Category NO_x and VOC Emission Trends (Industrial, Nonpoint, On-Road, and Non-Road Categories)

The figures below show Florida statewide emission trends for NO_x and VOCs from stationary industrial, on-road, non-road, and nonpoint sources from 2000 to 2015. Note that changes in nonpoint and non-road emissions are not taking into account changes made to the Nonpoint and Non-Road National Emissions Inventory (NEI) categories over time, such as the addition of commercial marine vessel, locomotive, and biogenic emissions to Nonpoint in 2008, the addition of emissions from various types of equipment to Non-Road in 2002, and the removal of aircraft, commercial marine vessel, and locomotive emissions from Non-Road in 2008.

Emissions of NO_x from stationary industrial sources have decreased 69% since 2000. Emissions of NO_x from mobile on-road sources have decreased by 61% since 2000. Emissions of NO_x from non-road sources have decreased by 40% since 2000. Emissions of NO_x from nonpoint sources have increased by 74% since 2000.

Emissions of VOCs from stationary industrial sources have decreased 44% since 2000. Emissions of VOCs from mobile on-road sources have decreased by 56% since 2000. Emissions of VOCs from non-road sources have decreased by 39% since 2000. Emissions of VOCs from nonpoint sources have increased by 415% since 2000. This increase in VOC emissions from nonpoint sources is largely due to the addition of biogenic emissions to the NEI Nonpoint category starting in 2008, which typically account for more than 85% of Nonpoint VOC emissions in Florida. When biogenic emissions are removed, there is a 36% decrease in nonpoint VOC emissions since 2000.

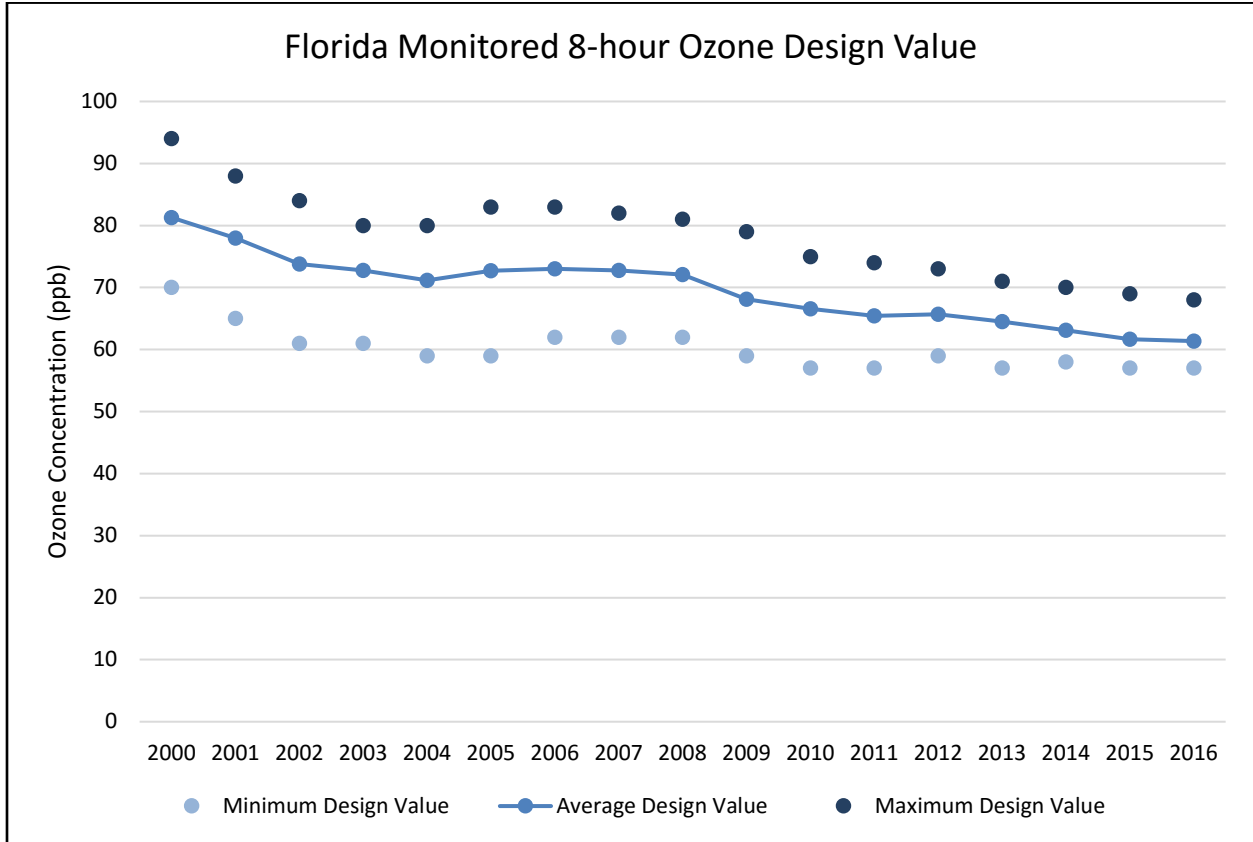


Emissions of NO_x and VOCs from industrial, nonpoint, on-road, and non-road sources. Industrial source emissions data are from Florida facility Annual Operating Report submissions. Mobile on-road source emissions are estimated from the Motor Vehicle Emission Simulator (MOVES2014a) model. Nonpoint and non-road emissions data are from the NEI.

Appendix 2

Florida Statewide Monitored 8-hour Ozone Design Values

The figure below shows Florida statewide monitored 8-hour ozone design values from 2000 to 2016. The average 8-hour ozone design value has decreased by 25% since 2000.



Monitored 8-hour ozone design values. Design values are calculated from Florida's ambient air quality monitoring network.