

Attachment
Infrastructure SIP Element [§ 110(a)(2)(D)(i)(I)]
for the 2010 1-Hour NO₂ NAAQS

Interstate Transport [§110(a)(2)(D)] of the Clean Air Act

Section 110(a)(2)(D)(i) of the CAA requires that Georgia’s SIP for the NO₂ NAAQS must “contain adequate provisions-

(i) prohibiting, consistent with the provisions of this subchapter, 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...”

The nonattainment portion is named “Prong 1” by EPA and the maintenance portion is named “Prong 2”.

Georgia’s Authority for Subsection (2)(D)(i)(I) is detailed below:

The Georgia Air Quality Act 12-9-5(b)(10) states:

- In the performance of its duties, the Board of Natural Resources shall have and may exercise the power to:

(10) Establish, review, or modify emission limitations, emission control standards, or control measures for stationary sources or facilities in areas of the state where such sources or facilities significantly contribute to nonattainment of an ambient air quality standard or significantly contribute to a significant deterioration of air quality in the state, an area of the state, or another state; provided, however, that no requirement under this paragraph shall be less stringent than the requirements for such source or facility under this article and the rules and regulations promulgated pursuant to this article;

Georgia EPD also has permitting requirements under Georgia Rule 391-3-1-.03 and Nonattainment New Source Review regulations under Georgia Rule 391-3-1-.03(8), specifically under the following SIP approved rules.

SIP Approved Rules:

- Georgia Rules for Air Quality Control 391-3-1-.03. - “Permits. Amended” including: Construction Permit under Georgia Rules for Air Quality 391-3-1-.03(1).

- Georgia Rules for Air Quality Control 391-3-1-.03. - “Permits. Amended” including: Operating Permit under Georgia Rules for Air Quality 391-3-1-.03(2).
- Georgia Rules for Air Quality Control 391-3-1-.03. - “Permits. Amended” including: New Source Review requirements under Georgia Rules for Air Quality 391-3-1-.03(8)(c) and (g).
- Georgia Rules for Air Quality Control 391-3-1-.03. - “Permits. Amended” including: Generic Permit under Georgia Rules for Air Quality 391-3-1-.03(12).

PSD requirements under SIP approved Georgia Rules for Air Quality Control 391-3-1-.02(7):

- All new major sources and major modifications in Georgia, including major sources of NO₂, are currently subject to Prevention of Significant Deterioration (PSD) under Georgia Rules for Air Quality Control 391-3-1-.02(7).

Nonattainment New Source Review for Ozone Nonattainment Areas under SIP approved Georgia Rules for Air Quality Control 391-3-1-.03(8):

- While there are no nonattainment areas subject to Nonattainment New Source Review for the 2010 1-hour NO₂ NAAQS, there are additional provisions for ozone nonattainment areas under Georgia Rules for Air Quality Control 391-3-1-.03(8)(13) and (14).

In addition to the above mentioned permitting and PSD requirements, Georgia has in place the following state rules and program measures, which further prevent Georgia from significantly contributing to nonattainment in, or interfering with maintenance by, any other State with respect to the 2010 1-hour NO₂ NAAQS. These measures target reductions of NO_x emissions:

SIP Approved Rules:

- Georgia Rules for Air Quality Control 391-3-1-.02(2)(yy) - Emissions of Nitrogen Oxides from Major sources
- Georgia Rules for Air Quality Control 391-3-1-.02(2)(jjj) - NO_x Emissions from Electric Utility Steam Generating Units
- Georgia Rules for Air Quality Control 391-3-1-.02(2)(lll) - NO_x from Fuel Burning Equipment
- Georgia Rules for Air Quality Control 391-3-1-.02(2)(rrr) - NO_x from Small Fuel Burning Equipment
- Georgia’s Rules for Enhanced Inspection and Maintenance 391-3-20 - Vehicle Emissions Inspection and Maintenance (I/M) Program

State Enforceable Only:

- Georgia Rules for Air Quality Control 391-3-1-.02(2)(sss) - Multipollutant Control for Electric Utility Steam Generating Units

110(a)(2)(D)(i)(I) Demonstration

Georgia does not contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to the 2010 1-hour NO₂ NAAQS. This argument is supported by the fact that the 2010 1-hour NO₂ standard is being attained by all areas in the nation, including Georgia.

The highest monitored NO₂ design values for 2014-2016 in Georgia and the states surrounding Georgia are shown in Table 1 (see Appendix A for the full 2014-2016 design value report). The highest monitored NO₂ design values for 2015-2017 in Georgia and the states surrounding Georgia are shown in Table 2 (see Appendix B for the full 2015-2017 design value report). The highest monitored NO₂ design values for 2014-2016 and 2015-2017 in Georgia and the states surrounding Georgia are significantly below the NAAQS (100 ppb).

Table 1. Highest monitored 1-hour NO₂ design values for 2014-2016 in Georgia and neighboring states.

State	Highest 2014-2016 1-hour NO ₂ Design Value (ppb)	Is the Highest 2014-2016 1-hour NO ₂ Design Value Valid?	Number of Monitors with Valid Design Values vs. Total Number of Monitors in State
Alabama	51	No	0 of 2
Georgia	58	No	1 of 5
Florida	51	No	5 of 16
North Carolina	51	No	2 of 6
South Carolina	44	No	0 of 5
Tennessee	53	No	0 of 5

Table 2. Highest monitored 1-hour NO₂ design values 2015-2017 in Georgia and neighboring states.

State	Highest 2015-2017 1-hour NO ₂ Design Value (ppb)	Is the Highest 2015-2017 1-hour NO ₂ Design Value Valid?	Number of Monitors with Valid Design Values vs. Total Number of Monitors in State
Alabama	49	No	0 of 2
Georgia	56	Yes	3 of 5
Florida	58	No	4 of 16
North Carolina	39	No	4 of 6
South Carolina	42	No	0 of 5
Tennessee	53	Yes	3 of 4

In addition, Georgia EPD examined NOx emission trends in Georgia from 1990 to 2017. The data for this analysis was extracted from EPA’s website¹. The Excel spreadsheet “APPENDIX_C_State_Tier1_Caps_90-17_GA.xlsx”¹ (see Appendix C) contains a detailed breakdown of NOx emission trends in Georgia from 1990 to 2017 by Tier 1 category and major source category. Major source categories are comprised of single or multiple Tier 1 categories. Figure 1 contains the NOx emission trends in Georgia from 1990 to 2017. Since 1990, the NOx emissions have decreased by 58%. Table 3 contains a detailed breakdown of 2017 NOx emission in Georgia by Tier 1 category and major source category. The most important NOx category is “Highway Vehicles”.

The above mentioned rules and measures, along with the fact that none of Georgia’s neighbors are nonattainment for the 2010 1-hour NO₂ NAAQS, demonstrates that Georgia EPD has adequate provisions to prevent emission sources in Georgia from emitting air pollutants in amounts that will significantly contribute to nonattainment in (Prong 1), or interfere with maintenance by (Prong 2), any other State with respect to the 2010 1-hour NO₂ NAAQS.

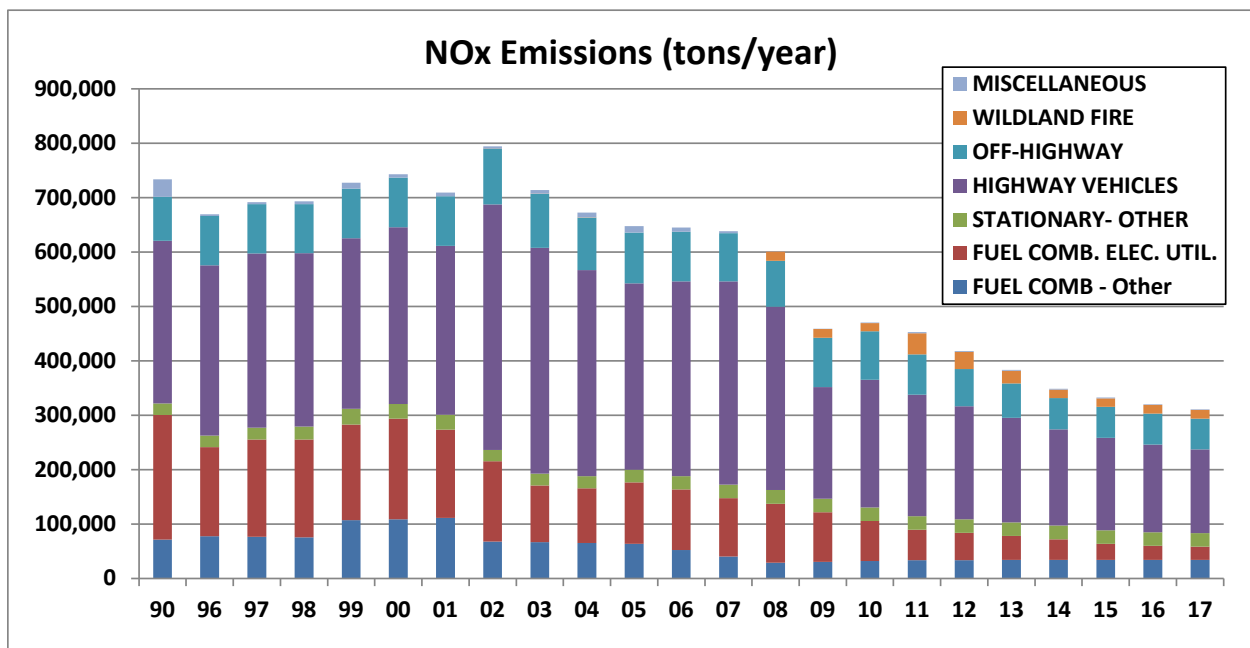


Figure 1. NOx emission trends in Georgia from 1990 to 2017.

¹ <https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data>

Table 3. Detailed breakdown of 2017 NO_x emission in Georgia by Tier 1 category and major source category.

Tier1 Category	Major Source Category	2017 NO_x Emissions (tons/year)
FUEL COMB. ELEC. UTIL.	FUEL COMB. ELEC. UTIL.	24,425
FUEL COMB. INDUSTRIAL	FUEL COMB - Other	21,862
FUEL COMB. OTHER	FUEL COMB - Other	12,221
CHEMICAL & ALLIED PRODUCT MFG	STATIONARY- OTHER	792
METALS PROCESSING	STATIONARY- OTHER	164
PETROLEUM & RELATED INDUSTRIES	STATIONARY- OTHER	3
OTHER INDUSTRIAL PROCESSES	STATIONARY- OTHER	16,543
SOLVENT UTILIZATION	STATIONARY- OTHER	21
STORAGE & TRANSPORT	STATIONARY- OTHER	25
WASTE DISPOSAL & RECYCLING	STATIONARY- OTHER	7,372
MISCELLANEOUS	MISCELLANEOUS	1,390
WILDFIRES	WILDLAND FIRE	341
PRESCRIBED FIRES	WILDLAND FIRE	15,327
HIGHWAY VEHICLES	HIGHWAY VEHICLES	153,635
OFF-HIGHWAY	OFF-HIGHWAY	56,872