

**North Carolina Certification For
Clean Air Act Section 110(a)(1) and (2)
Infrastructure State Implementation Plan for the
2010 1-Hour Sulfur Dioxide
National Ambient Air Quality Standards**

On June 22, 2010, the United States Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO₂). The EPA adopted a new 1-hour standard of 75 parts per billion (ppb), measured as a three-year average of the annual 99th percentile of 1-hour daily maximum concentrations (40 CFR 50.17). The EPA also revoked primary annual and 24-hour SO₂ NAAQS.

On August 5, 2013, the EPA promulgated nonattainment designations in locations where existing monitoring data from 2009-2011 indicated violations of the 1-hour SO₂ standard (78 FR 47191). North Carolina has no violating monitors, but the EPA indicated in its letter dated February 6, 2013 that it is deferring designations to a later date. The EPA stated that “the agency is not yet prepared to issue designations in this final rule, and fully intends to address the designations for all other areas.”

When the EPA revises an existing standard, or as in the case of the 1-hour SO₂ standard, promulgates a new standard, Clean Air Act (CAA) Sections 110(a)(1) and (a)(2) require each state to revise their State Implementation Plan (SIP) to show they have the authority and programs needed to implement, maintain, and enforce the standard. States must submit an infrastructure SIP within three years after a federal standard is adopted or revised.

In September 2013, the EPA released a guidance document that provides recommendations for air agencies’ development of infrastructure SIPs. This document serves as North Carolina’s infrastructure SIP for the 2010 1-hour SO₂ NAAQS, and was developed in accordance with the 2013 guidance (see Attachment 1). Each of the basic or infrastructure requirements is listed below along with the corresponding North Carolina State rule or statute implementing each SIP element.

The State rules can be found on the North Carolina Division of Air Quality (DAQ) website (www.ncair.org). Federally approved rules cited herein are to be included in the SIP. Rules that are not part of North Carolina’s approved SIP are provided as reference material in Attachment 3. The North Carolina General Statutes (NCGS) referenced in this document can be found on the North Carolina General Assembly website (<http://www.ncleg.net/gascripts/statutes/statutes.asp>). Relevant text from these statutes are provided in Attachment 3 as supporting reference material, and should not be adopted as part of North Carolina’s SIP.

Emission Limits and Other Control Measures [§ 110(a)(2)(A)]:

Section 110(a)(2)(A) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall -

“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].”

15A North Carolina Administrative Code (NCAC) 2D .0500, “*Emission Control Standards*”, serves to establish emission limits for SO₂. The following rules address additional control measures, means and techniques:

- 15A NCAC 2D .0600 “*Monitoring: Recordkeeping: Reporting*”
- 15A NCAC 2D .1000 “*Motor Vehicle Emission Control Standards*”
- 15A NCAC 2D .1200 “*Control of Emissions from Incinerators*”
- 15A NCAC 2D .1600 “*General Conformity*”
- 15A NCAC 2D .1800 “*Control of Odors*”
- 15A NCAC 2D .2000 “*Transportation Conformity*”
- 15A NCAC 2D .2200 “*Special Orders*”
- 15A NCAC 2D .2300 “*Banking Emission Reduction Credits*”
- 15A NCAC 2D .2400 “*Clean Air Interstate Rules*”
- 15A NCAC 2D .2600 “*Source Testing*”

NCGS 143-215.107(a)(5), *Air quality standards and classifications*, provides the North Carolina Environmental Management Commission (EMC) with the statutory authority, “To develop and adopt emission control standards as in the judgment of the Commission may be necessary to prohibit, abate, or control air pollution commensurate with established air quality standards.”

Ambient Air Quality Monitoring/Data System [§ 110(a)(2)(B)]:

Section 110(a)(2)(B) of the CAA requires that North Carolina's SIP shall -

“(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.”

EPA regulations require states to prepare and submit an annual monitoring network plan containing a periodic network assessment review. In accordance with this rule, the DAQ's 2013 Annual Monitoring Network Plan (submitted to the EPA on July 1, 2013) provides for an ambient air quality monitoring system in the State. Air quality monitoring is conducted in accordance with 40 CFR 58 requirements. The resulting monitored data are submitted to the EPA Air Quality System as specified in the Network Plan.

NCGS 143-215.107(a)(2), *Air quality standards and classifications*, provides the EMC with the statutory authority “To determine by means of field sampling and other studies, including the examination of available data collected by any local, State or federal agency or any person, the degree of air contamination and air pollution in the State and the several areas of the State.”

Programs for Enforcement of Control Measures and for Construction or Modification of Stationary Sources [§ 110(a)(2)(C)]:

Section 110(a)(2)(C) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall –

“(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.”

NCGS 143-215.6A, 6B, and 6C, *Enforcement procedures: civil penalties, criminal penalties, and injunctive relief* provide the North Carolina Department of Environment and Natural Resources (DENR) with the statutory authority to enforce air quality rules that contain requirements for emissions limits and controls.

NCGS 143-215.108, *Control of sources of air pollution; permits required*, provides the EMC with the statutory authority to permit sources of air pollution.

NCGS 143-215.107(a)(7), *Air quality standards and classifications*, provides the EMC with the statutory authority “To develop and adopt standards and plans necessary to implement programs for the prevention of significant deterioration and for the attainment of air quality standards in nonattainment areas.”

The following North Carolina air quality rules address minor source pre-construction, minor source modifications, and pre-construction PSD permitting of major sources:

- 15A NCAC 2D .0500 “*Emission Control Standards*”, 2D .0530 “*Prevention of Significant Deterioration*” applies to the construction of any new major stationary source or any project at an existing major stationary source in an area designated as attainment or unclassifiable.
- 15A NCAC 2D .0531 “*Sources in Nonattainment Areas*” applies to the construction of any new major stationary source or major modification at an existing major stationary source in an area designated as nonattainment.
- 15A NCAC 2Q .0300 “*Construction and Operation Permits*” establishes an air quality permitting program for minor sources and requires stationary sources, prior to construction or operation, to have an air permit if the source is above an emission threshold or operates air pollutant control devices.
- 15A NCAC 2Q .0500 “*Title V Procedures*”, establishes an air quality permitting program as required under Title V and 40 CFR Part 70.

New major sources and major modifications are subject to a comprehensive EPA-approved Prevention of Significant Deterioration (PSD) permitting program in the SIP that applies to all regulated NSR pollutants and that satisfies the requirements of the EPA's PSD implementation rule(s), as discussed earlier for purposes of Element C. North Carolina has submitted all PSD

requirements to the EPA for approval. The DAQ recently submitted a SIP revision related to adoption of PSD requirements including the fine particulate matter (PM_{2.5}) PSD increments to comply with the 1997 and 2006 PM_{2.5} infrastructure requirements for elements C, (D)(i) and (J). The EPA has not taken action on this submittal. Once approved, these requirements will also satisfy the same elements for the 2010 SO₂ infrastructure SIP.

Part D programs are required for areas that are designated nonattainment for a NAAQS. Since the EPA has not designated SO₂ nonattainment areas in North Carolina and North Carolina has submitted its recommendation as the entire state being attainment/unclassifiable, a Part D permit program is not required.

The EPA has stated that “structural PSD program provisions need to include provisions necessary for the PSD program to address all regulated sources and NSR pollutants, including greenhouse gases (GHG).” On October 18, 2011, the EPA published revisions to North Carolina’s PSD program to incorporate provisions related to GHGs (76 FR 64240).

Interstate Pollution Transport Provisions [§ 110(a)(2)(D)(i)]:

Section 110(a)(2)(D)(i) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall-

“(D) 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, or

(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility.”

Subsection 2(D)(i)(I)

Section 110(a)(2)(D)(i)(I) is also known as the good neighbor provision of the CAA in that upwind states are responsible for the effects of their pollution on downwind states. Under this section of the Act, states are responsible for reducing their “significant contribution” to those downwind nonattainment or maintenance areas. The August 21, 2012 decision by The U.S. Court of Appeals for the District of Columbia Circuit to vacate the 2011 Cross-State Air Pollution Rule (CSAPR) (EME Homer City Generation, L.P. v. EPA, No. 11-1302) clarified that only the EPA can determine “significant contribution” and that “a SIP cannot be deemed to lack a required submission or be deemed deficient for failing to implement the good neighbor obligation until after the EPA has defined the state's good neighbor obligation.” Once the EPA determines North Carolina's significant contribution to nonattainment or maintenance areas in downwind states, then the EPA may require North Carolina to submit a SIP revision under Section 110(k)(5) or submit a new SIP under Section 110(a)(1) of the CAA.

In addition, the November 19, 2012 EPA memo from Gina McCarthy, Assistant Administrator, cited the court decision that “a SIP cannot be deemed deficient for failing to meet the good neighbor obligation before EPA quantifies the obligation.”

As of the submission of this document, the EPA has yet to determine North Carolina's significant contribution of SO₂, in regards to the 2010 SO₂ NAAQS, to any downwind state. It is also important to note that there is currently no area designated by the EPA as nonattainment for the 2010 SO₂ NAAQS in any downwind state bordering North Carolina. Additionally, the EPA's CSAPR modeling analysis concluded that SO₂ emissions from North Carolina do not contribute significantly to PM_{2.5} NAAQS concerns in other areas. Therefore, no revision to North Carolina's SIP is necessary to incorporate this element of Section 110(a) of the CAA.

Subsection 2(D)(i)(II)

Section 110(a)(2)(D)(i)(II) requires SIPs to include provisions prohibiting any source or other type of emissions activity in one state from interfering with measures required of any other state to prevent significant deterioration of air quality, or from interfering with measures required of any other state to protect visibility.

New major sources and major modifications are subject to a comprehensive PSD permitting program in the SIP that applies to all regulated NSR pollutants and that satisfies the requirements of the EPA's PSD rules as discussed earlier for purposes of Element C. There are no nonattainment areas designated by the EPA that would be subject to Nonattainment New Source Review for the 2010 SO₂ NAAQS. SIP revisions to address requirements for these sources for any new or revised NAAQS are due on a separate timeframe under CAA Section 172(b) and are not subject to the timeframe for submission of infrastructure SIPs under Section 110(a)(1).

The following North Carolina air quality rules and SIPs address the requirements under this subsection:

- 15A NCAC 2D .0530 "*Prevention of Significant Deterioration*" applies to the construction of any new major stationary source or any project at an existing major stationary source in an area designated as attainment or unclassifiable.
- "*Regional Haze SIP for North Carolina Class I areas*", December 17, 2007
- 15A NCAC 2D .2400 "*Clean Air Interstate Rules*"

NCGS 143-215.107(a)(7) provides the authority "To develop and adopt standards and plans necessary to implement programs for the prevention of significant deterioration and for the attainment of air quality standards in nonattainment areas."

North Carolina has developed and implemented a Regional Haze SIP to protect visibility in five Class I areas: Great Smoky Mountains National Park, Joyce Kilmer- Slickrock Wilderness Area, Linville Gorge Wilderness Area, Shining Rock Wilderness Area, and Swanquarter National Wildlife Refuge. North Carolina's Regional Haze SIP also addresses visibility impacts to downwind states. North Carolina submitted a five-year progress report for the Regional Haze Plan on May 31, 2013 which concluded that all areas are making progress to meet future visibility goals.

On June 27, 2012, the EPA finalized a limited approval of North Carolina's Regional Haze SIP, as meeting some of the applicable regional haze requirements set forth in Sections 169A and 169b of the Clean Air Act and in 40 CFR 51.300-308. The limited approval was due to the disapproval of certain portions of the SIP which relied on the Clean Air Interstate Rule (CAIR). The EPA has been directed by the U.S. District of Columbia Circuit Court of Appeals to continue implementing CAIR until a replacement rule can be implemented to address the court's concerns regarding the CSAPR. North Carolina plans to address the remaining deficiency in the Regional Haze SIP arising from the CSAPR decision. North Carolina has federally approved CAIR rules to control emissions of NO_x and SO₂ from electric generating units and SIP approved portions of the Clean Smokestacks Act which sets system wide emission caps for coal-

fired power plants in North Carolina. Both of these provisions provide further protection of visibility in Class I areas located in North Carolina and downwind states.

Interstate and International transport provisions: Interstate Pollution Abatement and International Air Pollution [§ 110(a)(2)(D)(ii)]:

Section 110(a)(2)(D)(ii) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall -

“contain adequate provisions -

(ii) insuring compliance with the applicable requirements of sections 126 and 115 of this title (relating to interstate and international pollution abatement).”

The following rules address the requirements of Section 126(a) which directs each SIP to include provisions requiring a new or modified source to notify neighboring states of potential impacts from the source:

- 15A NCAC 2D .0530 *“Prevention of Significant Deterioration”*
- 15A NCAC 2D .0531 *“Sources in Nonattainment Areas”*

North Carolina has submitted all four PSD requirements to the EPA for approval. The DAQ recently submitted a SIP revision related to adoption of PSD requirements established in the 2008 NSR PM_{2.5} Rule and the 2010 PM_{2.5} Increments-SILs and SMC Rule to comply with 2006 PM_{2.5} infrastructure requirements for element C, (D)(i) and (J). The EPA plans to take action on this submittal. When approved, these requirements will also satisfy the same elements for the 2010 SO₂ infrastructure SIP.

Unless a state is the subject of a Section 126(b) or 126(c) petition with respect to SO₂, the state has no continuing obligation under these sections. North Carolina is not the subject of a Section 126(b) or 126(c) petition. Since there are no pending EPA actions pursuant to Section 115 of the CAA, there is no expectation that North Carolina would need to submit anything in regards to Section 115 at this time.

Adequate Resources and Authority, Conflict of Interest, and Oversight of Local Governments [§ 110(a)(2)(E)]:

Section 110(a)(2)(E) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall -

“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, 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.”*

15A NCAC 2Q .0200 “Permit Fees”, provides the mechanism by which stationary sources that emit air pollutants pay a fee based on the quantity of emissions emitted. The statutory authority to allow rulemaking and requiring permit fees can be found in NCGS 143-215.3 *General powers of Commission and Department; auxiliary powers*. Additionally, NCGS 143-215.107(a)(1) *Air quality standards and classifications*, provides the EMC with the statutory authority “To prepare and develop, after proper study, a comprehensive plan or plans for the prevention, abatement and control of air pollution in the State or in any designated area of the State.” In general, the elements of 110(a)(2)(E)(i) are met when the EPA performs a completeness determination for each SIP submittal and conducts a public review to determine if the plan complies with CAA requirements. Each submittal provides for adequate personnel, funding, and legal authority under State law to carry out the SIPs and related issues. This information is contained in all final SIP submittal packages in the historical record of the rule.

Section 110(a)(2)(E)(ii) of the CAA, as listed above, requires that the state comply with the requirements of Section 128 “State Boards”. Section 128(a)(1) requires 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. Section 128(a)(2) requires any potential conflicts of interest by members of such boards or body or the head of an executive agency with similar powers be adequately disclosed. The North Carolina Department of Environment and Natural Resources (DENR) has submitted Section 128 certification procedures to the EPA to comply with the 1997 8-hour ozone infrastructure SIP requirements. The EPA is currently

reviewing this submittal. When approved, this SIP revision will satisfy Section 110(a)(2)(E)(ii) requirements for the 2010 1-hour SO₂ Infrastructure SIP.

Section 110(a)(2)(E)(iii) of the CAA, as listed above, requires the state to provide the necessary assurances where the state relied on a local or regional government for the implementation of any plan provision. The state has the responsibility for ensuring adequate implementation of such plan provisions. North Carolina has three local programs that implement the air program. These agencies are located in Buncombe, Forsyth, and Mecklenburg Counties. NCGS 143-215.112 *Local air pollution control programs*, provides the EMC with the statutory authority “to review and have general oversight and supervision over all local air pollution control programs.” In order for submittals made by the local air program deemed complete, all local and regional implementation plans must be submitted through DENR to the EPA. This requirement has been deemed satisfactory by the EPA in past SIP submittals.

Stationary Source Monitoring and Reporting [§ 110(a)(2)(F)]

Section 110(a)(2)(F) of the CAA dictates that North Carolina's SIP for the 2010 SO₂ NAAQS shall -

“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 chapter, which reports shall be available at reasonable times for public inspection.”*

The following State rules require monitoring of emissions (testing, inspection, enforcement, and compliance) from stationary sources:

- 15A NCAC 2D .0604 *“Exceptions to Monitoring and Reporting Requirements”*
- 15A NCAC 2D .0605 *“General Recordkeeping and Reporting Requirements”*
- 15A NCAC 2D .0611 *“Monitoring Emissions from Other Sources”*
- 15A NCAC 2D .0612 *“Alternative Monitoring and Reporting Procedures”*
- 15A NCAC 2D .0613 *“Quality Assurance Program”*
- 15A NCAC 2D .0614 *“Compliance Assurance Monitoring”*
- 15A NCAC 2Q .0207 *“Annual Emissions Reporting”*

The Annual Emissions Reporting Rule requires stationary sources to submit periodic emissions reports to the State. These requirements meet the emissions reporting requirements of 40 CFR Part 51, including the Air Emissions Reporting Requirements (AERR). NCGS 143-215.107(a)(4) *Air quality standards and classifications*, provides the EMC with the statutory authority “To collect information or to require reporting from classes of sources which, in the judgment of the [EMC], may cause or contribute to air pollution.” North Carolina's annual emissions reporting requirement was approved into the SIP through previous EPA actions.

Emergency Episodes [§ 110(a)(2)(G)]:

Section 110(a)(2)(G) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall –

“provide for authority comparable to that in section 303 of this title and adequate contingency plans to implement such authority.”

Section 303 provides legal authority to the EPA to stop the emission of air pollutants that present an imminent and substantial endangerment to public health or welfare or the environment. The EPA is authorized to either bring a lawsuit in federal court or, if such civil action cannot assure prompt protection of public health or welfare, to issue such orders as may be necessary to protect public health or welfare or the environment. The requirement for states to provide adequate contingency plans (40 CFR Parts 51.150 through 51.153) to implement such authority is intended to establish emergency episode plans for responding to elevated pollutant levels in urban areas. Emergency episode plans are required in areas that record ambient pollutant concentrations in excess of threshold levels specified in 40 CFR Part 51.150.

In 40 CFR 51.16 (36 FR 24002), the EPA established “significant harm levels” for five criteria pollutants – sulfur dioxide, inhalable particulate matter (PM₁₀), 2010 NO₂, CO, and ozone. Part 51.16 was restructured as Subpart H and Appendix L of Part 51 (51 FR 40668). The requirement to submit an emergency plan for the five criteria pollutants is based on a priority classification scheme under 40 CFR Part 51 Subpart H.

The current federal threshold concentration for a Priority I SO₂ area is 40 parts per billion (ppb) for the annual arithmetic mean concentration and 170 ppb for 24-hour maximum concentration. Areas with 24-hour average concentration below 40 ppb and 24-hour maximum concentration below 100 ppb are classified as Priority III areas. Priority I region must have an emergency episode plan and include a contingency plan to prevent ambient pollutant concentrations from reaching a significant harm level (SHL), currently defined as 1000 ppb 24-hour SO₂ concentration. Under 40 CFR 51.152, Priority III areas do not need to develop an emergency episode plan for SO₂. The EPA has not revised thresholds or SHL for the new 1-hour SO₂ standard, and notes in its guidance that an episode in which concentrations of SO₂ approach the SHL is likely to be due to a single facility's equipment malfunction to warrant classification in a Priority I area.

North Carolina rule 15A NCAC 2D .0300 “*Air Pollution Emergencies*” provides the means to implement emergency air pollution episode measures and is authorized under NCGS 143-215.3(a)(1) and NCGS 143.215.3(a)(12). There are no monitoring stations in North Carolina reporting a value greater than 40 ppb or 100 ppb for the annual arithmetic mean or 24-hour maximum concentration, respectively. Therefore, North Carolina is classified as Priority III and is not required to adopt an emergency episode plan for SO₂. At such time as necessary or upon the EPA's issuance of revised thresholds or SHLs, North Carolina will conduct an assessment to determine if the state's priority classification has changed.

40 CFR 51.150(b)(3) states that in the absence of adequate monitoring data, models must be used to classify priority areas to achieve timely attainment and maintenance of the standard. Upon promulgation of EPA's Data Requirement Rule and issuance of final monitoring and modeling guidances, North Carolina will implement the SO₂ standard according to the regulation and procedures. At such time or upon the EPA's issuance of revised thresholds or SHLs, North Carolina will conduct an assessment to determine if the state's priority classification has changed.

Future SIP Revisions [§ 110(a)(2)(H)]:

Section 110(a)(2)(H) of the CAA requires that North Carolina’s SIP for the 2010 SO₂ NAAQS shall –

“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 chapter.”*

NCGS 143-215.107(a)(1) and (a)(10) provide the authority “To prepare and develop, after proper study, a comprehensive plan or plans for the prevention, abatement and control of air pollution in the State or in any designated area of the State” and “To develop and adopt standards and plans necessary to implement requirements of the federal Clean Air Act and implementing regulations adopted by the United States Environmental Protection Agency”, respectively. In addition, 15A NCAC 2D .2401(d) states that “The EMC may specify through rulemaking a specific emission limit lower than that established under this rule for a specific source if compliance with the lower emission limit is required to attain or maintain the ambient air quality standard for ozone or PM_{2.5} or any other ambient air quality standard in Section 15A NCAC 2D .0400.”

Plan Revisions for Nonattainment Areas [§ 110(a)(2)(I)]:

Section 110(a)(2)(I) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall -

“in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D of this subchapter (relating to nonattainment areas).”

Pursuant to CAA Section 172(a), this requirement only applies when an area is designated as nonattainment with the SO₂ NAAQS. It is only addressed when an attainment demonstration is required, as required by a separate provision and schedule as defined in the CAA. According to the EPA's interpretation of the CAA in the 2013 Infrastructure SIP guidance document, this element does not need to be addressed in the context of an infrastructure SIP submission. North Carolina recommended a designation of attainment/unclassifiable, but the EPA elected to defer designations. North Carolina is relying on EPA's interpretation; therefore, Element I is not being addressed in this submission.

NCGS 143-215.107(a)(7) provides the authority “to develop and adopt standards and plans necessary to implement programs for the prevention of significant deterioration and for the attainment of air quality standards in nonattainment areas.”

Consultation and Public Notification [§ 110(a)(2)(J)]:

Section 110(a)(2)(J) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall –

“meet the applicable requirements of section 121 of this title (relating to consultation), section 127 of this title (relating to public notification), and part C of this subchapter (relating to prevention of significant deterioration of air quality and visibility protection).”

This element contains four separable sub-elements: consultation with identified officials on certain air agency actions, public notification, prevention of significant deterioration, and visibility protection.

Consultation with identified officials on certain actions: Section 121 requires that states provide a satisfactory process of consultation with general purpose local governments, designated organizations of elected officials of local governments, and any affected federal land manager (FLM) in carrying out CAA requirements. North Carolina's authority to satisfy these requirements is found in:

- 15A NCAC 2D .2000 *“Transportation Conformity”*
- 15A NCAC 2D .1600 *“General Conformity”*
- 15A NCAC 2D .0531 *“Sources in Nonattainment Areas”* address consultation requirements with the FLMs when permitting stationary sources.
- *“Regional Haze SIP for North Carolina Class I areas”*, December 17, 2007

Public Notification: Section 127 requires states to provide measures which will be effective to notify the public on a regular basis of instances or areas in which any air quality standard is exceeded during the preceding calendar year, to advise the public of the health hazards associated with such pollution, and to enhance public awareness of measures that can be taken to prevent such standards from being exceeded. North Carolina's authority to satisfy these requirements is found in:

- 15A NCAC 2D .0300 *“Air Pollution Emergencies”*

Additionally, the DAQ has an extensive outreach program to educate the public and promote voluntary emission reduction measures through the North Carolina Air Awareness Program. North Carolina also participates in the EPA AirNOW program, which enhances public awareness of air quality in North Carolina and throughout the United States. The DAQ Ambient Monitoring web page provides information regarding current and historical air quality across the state.

Prevention of Significant Deterioration: The requirements for Element J are the same as those described earlier with respect to Element C. North Carolina’s authority resides in the following rules:

- 15A NCAC 2D .0530 “*Prevention of Significant Deterioration*”
- 15A NCAC 2D .0531 “*Sources in Nonattainment Areas*”
- 15A NCAC 2Q .0300 “*Construction and Operation permits*”
- 15A NCAC 2Q .0500 “*Title V Procedures*”

North Carolina has submitted all PSD requirements to the EPA for approval. The DAQ recently submitted a SIP revision related to adoption of PSD requirements established in the 2008 NSR PM2.5 Rule and the 2010 PM2.5 Increments-SILs and SMC Rule to comply with 2006 PM2.5 infrastructure requirements for element C, (D)(i) and (J). These requirements will also satisfy the same elements for the 2010 SO₂ infrastructure SIP.

Visibility Protection: In the September 2013 guidance, the EPA stated that “air agencies do not need to address the visibility sub element of Element J in an infrastructure SIP submission... and according, to the EPA’s interpretation of the CAA, this element does not need to be addressed.”

NCGS 143-215.107(a)(7) provides the authority “To develop and adopt standards and plans necessary to implement programs for the prevention of significant deterioration and for the attainment of air quality standards in nonattainment areas.” North Carolina addresses visibility protection through –

- 15A NCAC 2D .0530 “*Prevention of Significant Deterioration*”
- “*Regional Haze SIP for North Carolina Class I areas*”, December 17, 2007
- 15A NCAC 2D .2400 “*Clean Air Interstate Rules*”

With respect to the visibility component of Section 110(a)(2)(J) of the CAA, the visibility element has already been addressed in Subsection 2(D)(i)(II) of this document.

Air Quality Modeling and Reporting [§ 110(a)(2)(K)]:

Section 110(a)(2)(K) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall -

“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.”*

All current attainment demonstrations submitted to the EPA provide air quality modeling for the purpose of predicting the effect of emission sources on the ambient air quality. This modeling work complies with the EPA's final guidance on the use of models in attainment demonstrations, and uses latest methods and techniques to document modeling information and computer model performance evaluations. Emissions data collected through 15A NCAC 2D .0600 *“Monitoring: Recordkeeping: Reporting”* (authorized under NCGS 143-215.107(a)(4)) provide the necessary information to model potential impact of major and some minor sources. The DAQ works closely with the southeast region and other areas to conduct air quality modeling to ensure compatibility with federal guidelines. The DAQ currently has personnel with training and experience to conduct source-oriented dispersion modeling with models approved by the EPA.

Permitting Fees [§ 110(a)(2)(L)]:

Section 110(a)(2)(L) of the CAA requires that North Carolina’s SIP for the 2010 SO₂ NAAQS shall –

“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 chapter, 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 subchapter V of this chapter.”*

The statutory authority to allow permit fees can be found in NCGS 143-215.3 *General powers of Commission and Department; auxiliary powers*. The North Carolina rule containing the provision for all permitting, implementation and enforcement for new and modified major sources as well as existing major sources is found in:

- 15A NCAC 2Q .0200 *“Permit Fees”*

The *Permit Fees* rule provides the mechanism by which stationary sources that emit air pollutants pay a fee based on the type of permit and the quantity of emissions emitted. The fees collected under this rule cover the reasonable cost of review, approval, implementation and enforcement of PSD permits (15A NCAC 2D .0530) and NNSR permits (15A NCAC 2D .0531). The 2D .0500 and 2Q .0500 rules contain the state’s title V program which includes provisions to implement and enforce PSD and NNSR permits once these permits have been issued. The fees collected under the *Permit Fees* rule also support this activity.

Consultation and Participation by Affected Local Entities [§ 110(a)(2)(M)]:

Section 110(a)(2)(M) of the CAA requires that North Carolina's SIP for the 2010 SO₂ NAAQS shall –

“provide for consultation and participation by local political subdivisions affected by the plan.”

North Carolina's authority related to this element is found in:

- 15A NCAC 2D .0530 *“Prevention of Significant Deterioration”* requires that the Department notify the public of the application, preliminary determination, degree of incremental consumption, and the opportunity for comment prior to making a final permitting decision.
- 15A NCAC 2D .2000 *“Transportation Conformity”* requires a consultation with all affected partners to be implemented for transportation conformity determinations.

All State rules go through the public review process as defined in the North Carolina Administrative Procedures Act (NCGS 150B-21.1 and 150B-21.2). All Attainment Demonstrations, Redesignation Demonstrations, and Maintenance Plans go through a public notification process prior to submittal to the EPA for inclusion in the SIP. Additionally, the Regional Haze State Implementation Plan went through an extensive consultation process between appropriate state, local, and tribal air pollution control agencies as well as the corresponding FLMs. Finally, the DAQ organizes stakeholder meetings to support SIP development and rule-making efforts.