

North Carolina
Clean Air Act Section 110(l)
Noninterference
Demonstration
For
Repeal of Transportation
Facilities Rules



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PREFACE:

This document contains North Carolina's Clean Air Act Section 110(l) noninterference demonstration for repeal of transportation facilities rules.

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CLEAN AIR ACT SECTION 110(I) DEMONSTRATION

1.0 INTRODUCTION

CAA Section 110(l) prohibits EPA from approving any proposed state implementation plan (SIP) revision that would interfere with the attainment and maintenance of the national ambient air quality standard (NAAQS) in effect at the time of the revision. The following “noninterference demonstration” is provided to show that the repeal of the State transportation facilities rules will not interfere with North Carolina’s ability to attain or maintain compliance with the current carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃) and particulate matter (PM) NAAQS.

A "Transportation Facility" (i.e., "Complex Source") is defined in the North Carolina general statute (GS 143-213 (22)) as "any facility which is or may be an air pollution source or which will induce or tend to induce development or activities which will or may be air pollution sources, and which shall include, but not be limited to, shopping centers; sports complexes; drive-in theaters; parking lots and garages; residential, commercial, industrial or institutional developments; amusement parks and recreation areas; highways; and any other facilities which will result in increased emissions from motor vehicles".

The transportation facility rules in the North Carolina Administrative Code (NCAC) are contained in two sections of Chapter 15A, Section 02D .0800, Complex Sources, and Section 02Q .0600, Transportation Facility Procedures. North Carolina Division of Air Quality (DAQ) is proposing to repeal North Carolina transportation facility rules.

2.0 BACKGROUND

2.1 Nature of Problem in North Carolina

In the late 1970's, the Charlotte area experienced violations of the NAAQS and was designated nonattainment for CO in 1978. The Charlotte, Raleigh/Durham, and Winston-Salem areas were recommended as nonattainment for CO by the Governor in a March 15, 1991 letter to the EPA Region IV Administrator as required by section 107(d)(1)(A) of the 1990 Clean Air Act Amendments (CAAA).

Although the Charlotte area had an attaining design value of 8.4 parts per million (ppm), based on 1988 and 1989 data, the 1978 nonattainment designation was reaffirmed by operation of law on the day of enactment of the 1990 CAAA. Therefore, the Charlotte area was designated as "not-classified" and was given, under the CAAA, 5 years from the date of official designation to attain the standard and therefore had an attainment deadline of November 15, 1995.

The Raleigh/Durham and Winston-Salem areas were designated nonattainment for CO and classified as "moderate" under the provisions outlined in Sections 186 and 187 of the CAAA. The design values were 10.9 ppm and 9.7 ppm (based on 1988 and 1989 data) for Raleigh/Durham and Winston-Salem, respectively. Since the design values were less than 12.7 ppm, both areas were designated as "low moderate". With a moderate designation, both areas had until December 31, 1995 to attain the standard.

The Mecklenburg County local air program submitted a redesignation request for the 8 hour ozone standard for the Charlotte area to the Environmental Protection Agency (EPA) in August 1991. The EPA had many comments regarding this submittal and the local program decided to let the State handle the follow up request. In October 1994, the State of North Carolina submitted a redesignation request to the EPA and the Charlotte area was designated attainment/maintenance for CO in September 1995.

In April 1994, the State of North Carolina submitted a request to the EPA to redesignate the Winston-Salem area to maintenance status based upon three years of clean air quality data. In November 1994, this area was redesignated to attainment/maintenance for CO.

For the Raleigh/Durham area, the State submitted a request to the EPA to redesignate this area to maintenance in October 1994 and the area was redesignated to attainment/maintenance for CO in September 1995.

In March 2005, the State submitted the second maintenance plan to the EPA for all three areas. This plan was approved by the EPA in March 2006, and a clarification regarding this approval was published in June 2007. The June 2007 clarification was with respect to moving the oxygenated fuels program to the contingency measures.

On August 2, 2012, the DAQ submitted the final "Carbon Monoxide (CO) Limited Maintenance Plan for the Charlotte, Raleigh/Durham & Winston-Salem CO Maintenance Areas" to the EPA. The Plan documented that the Charlotte, Raleigh/Durham & Winston-Salem CO Maintenance areas fulfilled the requirement of Section 175A of the Federal Clean Air Act as amended. The transportation facilities rules are not components of the limited maintenance plans.

In 2015, each area completed a 20-year maintenance period, and the EPA revised the designation to "attainment". On December 16, 2015, the EPA issued letters documenting that the transportation conformity requirements under Section 176(c) of the CAAA, have ended because the areas have reached the end of the 20-year maintenance plan after which transportation conformity requirements do not apply.

2.2 History of North Carolina Transportation Facility Rules

The transportation facility rules were originally adopted on November 15, 1973 as Regulation #9 in the North Carolina Administrative Code (later changed to Sections 15A NCAC 02D .0800,

Transportation Facilities, and 02Q .0600, Transportation Facility Procedures). This regulation was adopted pursuant to the EPA requirement to control emissions from indirect (complex) sources. Indirect or complex sources are called transportation facilities in the current North Carolina rules. To satisfy EPA requirements pursuant to 40 CFR 51.18, the State needed a plan that “set forth legally enforceable procedures which shall be adequate to enable the State or local agency to determine whether the construction or modification of a facility, building, structure, or installation, or combination thereof, will result in violation of national standard either directly because of emissions from it, or indirectly, because of emission resulting from mobile source activities associated with it.”

Accompanying 40 CFR 51.18 was Appendix O, which provided guidelines “to assist in the development of regulations and procedures to comply with the requirements of §51.18.” This appendix describes the types of indirect sources that might be included in a state plan. It describes procedures that can be used to demonstrate that the plan will attain and maintain the NAAQS for CO and for modeling CO emissions, but it does not specifically discuss any other pollutants.

In 1974, the EPA suspended the indirect source review (ISR) regulations. The 1977 CAAA codified this approach in Section 110(a)(5)(A)(i) which allows States to include ISR into their SIPs, but EPA may not require them as a condition of their approval. Also Section 110(a)(5)(iii) of the CAAA states “Any State may revise an applicable implementation plan approved under Section 110(a) to suspend or revoke any such program included in such plan, provided that such a plan meets the requirements of this section.”

2.3 Limited Maintenance Plan SIP Submittal

When an area has monitoring data at 85% of the CO NAAQS or lower, a state may choose the less rigorous maintenance plan option of a limited maintenance plan. On August 2, 2012, the DAQ submitted a Limited Maintenance Plan for the Charlotte, Raleigh/Durham, and Winston Salem CO maintenance areas. When the limited plan was submitted, ambient monitoring data for all three maintenance areas in the state were lower than 23% of the CO NAAQS. The limited maintenance plan included an emissions inventory for a typical winter day for the 2010 attainment year, a commitment to continue operation of the air monitoring network to verify the attainment status over the attainment period and contingency measures to ensure prompt action is taken to correct any violation of the CO NAAQS. The Carbon Monoxide Limited Maintenance Plan submitted by North Carolina DAQ was approved by EPA on February 22, 2013 (78 FR 12238). The transportation facilities rules are not components of the limited maintenance plans.

3.0 PROPOSED REPEAL OF TRANSPORTATION FACILITIES RULES

3.1 What is the revision to the rules?

At the conclusion of the 2013 legislative session, the North Carolina General Assembly enacted Session Law (S.L.) 2013-413, An Act to Improve and Streamline the Regulatory Process in Order to Stimulate Job Creation, to Eliminate Unnecessary Regulation, to Make Various Other Statutory Changes, and to Amend Certain Environmental and Natural Resources Laws. Part V, Section 27 of the Session Law amended North Carolina General Statute (G.S.) 143-215.109(a) to provide the Environmental Management Commission (EMC) the flexibility to determine whether rules are necessary for controlling the effects of these sources on air quality. G.S. 143-215.109(a) was rewritten as follows:

“The Commission ~~shall~~ may by rule establish criteria for controlling the effects of complex sources on air quality. The rules shall set forth such basic minimum criteria or standards under which the Commission shall approve or disapprove any such construction or modification. The rules shall further provide for the submission of plans, specifications and such other information as may be necessary for the review and valuation of proposed or modified complex sources.”

The transportation facility rules are contained in sections 15A NCAC 02D .0800, Complex Sources, and 02Q .0600, Transportation Facility Procedures. The DAQ has identified the rules in these sections as outdated requirements that are not providing environmental benefit and recommended repeal of these rules to the EMC. The rules, which apply statewide, are focused on addressing CO emissions; however, North Carolina does not have any CO nonattainment areas.

3.2 Why is the repeal necessary?

This revision is necessary to reduce regulatory burden of requiring owners of transportation facilities (complex sources) to get a transportation facility permit before beginning construction of a facility. By repealing the transportation facilities permitting requirements, these permitting activities by the owner or operator of a transportation facility or DAQ may be avoided as follows:

- Submitting a permit application for new or modified transportation facilities,
- Conducting dispersion modeling analyses that demonstrate compliance with ambient air quality standards for carbon monoxide or traffic analyses showing a level of service (LOS) of A, B, C, or D as defined in the Highway Capacity Manual¹,
- Public notice and 30 day public comment period,
- Time required for the DAQ to process the permit application, and
- \$400 permit application fee or \$50 change of ownership fee.

The permitting process is not providing an environmental benefit and has served only as an administrative function. Currently, the CO monitors are measuring ambient concentrations less than 20 percent of the NAAQS. Since 2004, 34 of 54 (63%) transportation facility permit applications received by DAQ contained only traffic analyses as allowed by the rule because the LOS, a qualitative measure describing operational conditions within a traffic stream, for the

¹ Transportation Research Board, Highway Capacity Manual, National Research Council, Washington, DC, 2010.

proposed facilities were rated D or better. Even those permit applications for facilities that had a poor level of service of E or F, required to model under NC rules, modeled concentrations well below the CO NAAQS and have resulted in no additional control requirements being added to transportation facility permits to control CO emissions.

3.3 How many facilities are affected by the repeal?

During the last five years, both the DAQ and Mecklenburg County Air Quality have averaged 3 transportation facility permits per year. The other two local programs, Forsyth County and Western NC have not issued any permits during the last five years. DAQ has issued two transportation permits in 2014. Mecklenburg County Air Quality reviewed about 4 permit applications in 2015.

4.0 NON-INTERFERENCE WITH THE CARBON MONOXIDE NAAQS

Charlotte and Raleigh/Durham were redesignated attainment for CO in September 1995 and Winston-Salem in October 1994. Since the Charlotte, Raleigh/Durham and Winston-Salem areas have been redesignated to maintenance status for CO, these areas have continued to meet the CO NAAQS. The CO monitoring data for 2015 for all three maintenance areas are well below the 8-hour CO standard. The Charlotte area has a regional 8-hour CO design value of 1.2 ppm or 13% of the NAAQS; the Raleigh/Durham area has a regional 8-hour CO design value of 1.2 ppm or 13% of the NAAQS; and the Winston-Salem area has a regional 8-hour CO design value of 1.3 ppm or 14% of the NAAQS. Table 1 shows the six most recent years of air quality data for CO in the three maintenance areas in North Carolina.

All three maintenance areas are well below the 8-hour NAAQS for CO. Removal of the transportation facility (indirect complex sources) requirements is not expected to affect the attainment status of any of the limited maintenance plan areas or other areas of the state. This is based on a history of permit reviews that have resulted in no CO emission reductions as a result of the transportation facility rules.

Table 4.1 Recent Air Quality Data for the CO Maintenance Areas

Site ID# and County	Year	Maximum of 8-hr Running Average (ppm)		Design Value	Percent of Standard
		1st	2nd		
<i>Charlotte Maintenance Area</i>					
371190041 Mecklenburg	2010	2.0	1.7	1.7	19
	2011	1.8	1.5	1.5	17
	2012	1.6	1.5	1.5	17
	2013	1.4	1.2	1.2	13
	2014	1.1	1.1	1.1	12
	2015	1.4	1.2	1.2	13
<i>Raleigh/Durham Maintenance Area</i>					
371830014 Wake	2010	1.7	1.3	1.3	14
	2011	1.4	1.4	1.4	16
	2012	1.4	1.3	1.3	14
	2013	1.3	1.2	1.2	13
	2014	1.2	1.2	1.2	13
	2015	1.3	1.2	1.2	13
<i>Winston-Salem Maintenance Area</i>					
370670023 Forsyth	2010	1.9	1.9	1.9	21
	2011	2.3	2.1	2.1	23
	2012	1.3	1.2	1.2	13
	2013	1.8	1.7	1.7	19
	2014	1.6	1.5	1.5	17
	2015	1.4	1.3	1.3	14

5.0 NON-INTERFERENCE WITH OZONE, PM, SO₂, AND NO₂ NAAQS

The purpose of the complex sources rules in Section 15A NCAC 02D .0800 were to set requirements for the construction of complex sources that may result in an exceedance of the CO NAAQS. Specifically, Paragraph (a) of 02D .0801 is written as follows.

- (a) The purpose of this Section is to set forth requirements of the Commission relating to construction or modification of a transportation facility which may result in an ambient air quality standard for carbon monoxide being exceeded.

The complex sources (transportation facilities) rules do not set requirements for the construction or modification of complex sources that may result in an exceedance of any other NAAQS, including ozone, particulate matter (PM), sulfur dioxide (SO₂) and nitrogen dioxide (NO₂). All monitored areas in North Carolina are in attainment for the 2008 and 2015 ozone NAAQS, 2010 SO₂ NAAQS, 2010 NO₂ NAAQS, and the 2012 PM_{2.5} and PM₁₀ NAAQS. For these reasons and the fact that no emission controls have been required thus far, it is unlikely that removing the

transportation facilities permitting requirements will result in a violation of the ozone, PM_{2.5}, PM₁₀, SO₂ or NO₂ NAAQS.

6.0 CONCLUSION

The North Carolina DAQ concludes that repeal of the transportation facility rules does not interfere with the attainment of any applicable NAAQS. All three maintenance areas, Charlotte, Winston-Salem and Raleigh/Durham are well below the 8-hour CO standard. The North Carolina limited maintenance plan for carbon monoxide includes a contingency plan based on a triggering event and mechanisms that will ensure the state continues to maintain the CO NAAQS. The transportation facilities rules are not a component of the EPA-approved limited maintenance plan. Therefore, with this submission, the North Carolina DAQ believes the requirements of Section 110(l) of the Clean Air Act relative to repeal of the transportation facilities rules have been met.