Appendix C

Public Notice Report, Comments Received and Responses

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Public Notice Report
For the
Supplement to the 110(a)(1) 1997 8-hour Ozone Standard Maintenance Plan
for Greensboro/Winston-Salem/High Point, North Carolina
1-Hour Ozone Maintenance Area

Introduction

On February 21, 2013, a pre-hearing version of the "Supplement to the 110(a)(1) 1997 8-hour Ozone Standard Maintenance Plan for Greensboro/Winston-Salem/High Point, North Carolina 1 Hour Ozone Maintenance Area" was submitted to the United States Environmental Protection Agency (USEPA). A request for public hearing, in accordance with 40 CFR 51.102, and the public comment period were published on the North Carolina Division of Air Quality (NCDAQ) website, as well as to email distribution lists managed by the NCDAQ. The public comment period was open from February 8, 2013 through March 15, 2013. No requests for a public hearing were received. The public comment period elicited comments from the USEPA and North Carolina Petroleum and Convenience Marketers (NCPCM).

Background

The area surrounding Greensboro/Winston-Salem/High Point, North Carolina (i.e. the Triad area) was designated nonattainment for the 1997 8-hour ozone National Ambient Air Quality Standards (NAAQS) on April 30, 2004 (69 Federal Register 23858). The Triad maintenance area includes the North Carolina counties of Davidson, Forsyth and Guilford Counties and a portion of Davie County. The nonattainment designation was an action taken by the USEPA under Section 107(d) of the Clean Air Act (CAA). The CAA requires that some area be designated as nonattainment if a monitor is found to be in violation of a NAAQS. The USEPA took designation action in 2004 based on the ambient data from 2001-2003. At that time, the regional design value, the highest monitor's design value, was 0.100 parts per million (ppm). The USEPA designated the Triad area as attainment/unclassifiable in April 2008.

There are currently eight ozone monitors located throughout the Triad area. The Triad area continues to be in compliance with the 1997 8-hour ozone standard. As a result of continued improvement in air quality, the USEPA designated the area attainment of the more stringent 2008 8-hour ozone NAAQS. However, due to the extreme heat events that affected most of the country during a two week period in the summer of 2012, ozone monitors in the Triad area measured exceedances of the 2008 8-hour ozone NAAQS. There are presently three monitors in the Triad area that are violating the 2008 8-hour ozone NAAQS based on preliminary 2010-2012 monitoring data. The latest design value for the Triad area is 0.078 ppm.

The State of North Carolina has implemented permanent and enforceable reductions in ozone precursor emissions in the Triad area. These actions include implementing the on-board diagnostic vehicle inspection and maintenance program that was phased-in in the Triad nonattainment area from July 1, 2002 through January 1, 2004, and an open burning ban during

ozone action days. In addition, the adoption of several State rules have resulted in reductions in emissions within the nonattainment areas and nearby areas that have resulted in lower ozone levels at the monitor. These State actions include the NOx SIP Call rules and the Clean Smokestacks Act (CSA) legislation. The CSA has resulted in significant reductions in NOx emissions from coal-fired power plants in North Carolina. One of these plants, located within a few miles of the Triad area, is scheduled to be retired in April 2013. The shutdown of this plant is expected to improve air quality in the Triad area.

Several actions at the Federal level by the USEPA have resulted in lower emissions throughout the eastern portion of the country. These Federal actions include the Tier II engine standards for light and medium duty vehicles, heavy-duty engine standards, the low sulfur gasoline and diesel requirements, off-road engine standards, the NOx SIP Call and the Clean Air Interstate Rule (CAIR). CAIR was remanded by the court and although North Carolina did not rely on the emission reductions from CAIR for maintenance of the 1997 8-hour ozone standard, CAIR will result in additional reductions in NOx emissions regionally.

North Carolina is requesting that the USEPA relax the summertime gasoline RVP in Davidson, Davie, Forsyth, and Guilford Counties. NOx, VOC, and SO_2 emissions are falling across the 4 counties and the greater Triad region. Additionally, photochemical modeling shows no increases in ozone or particle pollution stemming from the relaxation of gasoline RVP.

Summary of Public Comment Period

The public notice comment period was open from February 8, 2013 through March 15, 2013. There were no requests for a public hearing. Comments received from the USEPA and NCPCM are attached following this report.

The following is a summary of the pertinent comments raised during the public comment period, along with the NCDAQ's response.

USEPA Comment 1: Page 2-6- The text says "Although there is a slight increase in NOx [nitrogen oxides] and VOC [volatile organic compound] emissions between 2007 and 2018,…" It is unclear what increase in emissions this is referencing. It appears all emissions go down between 2007 and 2018.

NCDAQ Response: The term "slight increase" refers to the small increase in total man-made NOx and VOC emissions with and without RVP relaxation in year 2018, as shown in Table 2.2-1. The author appears to be interpreting this statement with respect to the safety margin data shown in Table 2.2-3, which shows that despite the small increase due to the RVP relaxation, all emissions go down between 2007 and 2018 as demonstrated by the downward trend in the safety margin. The text on Page 2-6 is revised to avoid this confusion.

USEPA Comment 2: Page 2-8- The text says that maximum percent increase was applied to the mobile for all hours. Table 2.3.1 shows the average and maximum increase for different

pollutants, including several different VOC species. Please explain what "maximum percent" increase was applied to what species in the modeling.

NCDAQ Response: The VOC increases were applied to all other VOC species not specifically listed in the table. Specifically, the ratios listed below were applied to the species within the CMAQ mobile emissions inputs. The text on Page 2-8 is revised to clarify this.

NO	1.0062
NO2	1.0034
CO	1.0209
HONO	1.0057
ALD2	1.0075
CH4	1.0041
TOL	1.0767
XYL	1.081
ALD2	1.07
BENZENE	0.97
FORM	0.998
PAR	1.07
UNR	1.07
ALDX	1.07
ETH	1.07
ETH	1.07
IOLE	1.07
ISOP	1.07
NVOL	1.07
OLE	1.07
TERP	1.07
UNK	1.07

USEPA Comment 3: Page 2-9- Please provide the 2005 and 2016 NOx and sulfur dioxide (SO_2) emissions (before and after adjustments) for the three coal fired power plants (Buck, Dan River, and Riverbend) that are converting to natural gas.

NCDAQ Response: Tables 2.3.1 – 2.3.6 are added to provide a summary of annual NOx, VOC, and SO_2 emissions in Guilford, Forsyth, Davie, and Davidson Counties where the RVP relaxation is proposed, as well as the greater Triad MSA including Buck Steam Station in Rowan County. The data represent actual emissions for 2005-2007 and the projected emissions from 2014-2016. Future year NOx reductions are about 95% versus the estimated 85% that was modeled. SO_2 reductions are over 99%.

USEPA Comment 4: Please explain how the 1.43 tons per day number of VOC emissions increase on page 2-4 was developed.

NCDAQ Response: Future year (2018) VOC emissions with the current 7.8 psi RVP and proposed 9.0 psi RVP are estimated to be 106.51 tons/day and 107.94 tons per day, respectively. The difference in the two emissions values, attributed to the increase from RVP relaxation, is 1.43 tons/day. Table 2.2-1 is revised to show the 2018 data at the 7.8 psi and 9.0 psi scenarios.

USEPA Comment 5: Comments on the 110(l) demonstration used the USEPA's Mercury and Air Toxics (MATS) modeling platform for 2005 and 2016 to model ozone and particle pollution:

a. Please include more details on the USEPA MATS modeling platform, including basic information, such as a map of the modeling domain, grid resolution, and emissions summaries for the Triad area for the 2005 and 2016 modeling cases.

NCDAQ Response: The document is revised to include modeling domain information and a map image. Emissions summaries for the Triad area for 2005 and 2016 MATS modeling are also added.

b. It is unclear why the grid resolution of the modeling platform is suitable for simulating the very small emissions changes for ozone and particulate matter in the Triad area. We recommend that the SIP discuss the applicability and suitability of the chosen modeling platform for addressing the small emissions changes due to the RVP relaxation in the Triad.

NCDAQ Response: The emission changes due to the change in RVP are over a multi-county area. These are small changes but they are over a wide area, covering multiple grid cells within the 12km domain. The USEPA is using 12km grid to model impacts of the most recent Tier 3 motor vehicle and fuel standard. Similar to the RVP relaxation, it will affect surface mobile emissions.

c. The revision states that a conservative estimate of NOx and SO_2 emissions for the electric generating units (EGUs) being shutdown surrounding the Triad area was used in the modeling. Please explain why 85 percent of the NOx emissions were used to adjust the switch of coal fired EGUs to combustion turbines at Buck, Dan River, and Riverbend in 2005.

NCDAQ Response: The actual emissions for 2005-2007 and the projected emissions from 2014-2016 are now added. NOx reductions are more like 95% versus the estimated 85% that was modeled. SO_2 reductions are over 99%. The Riverbend coal-fired units will shutdown completely. The emissions reductions due to the shutdowns/conversions are underestimated, yet even these reductions easily balance the slight increase in NOx/VOC due to the RVP relaxation.

d. The ozone monitoring season for North Carolina is from April until October. It is unclear why the modeling did not include the month of October. From page 2-9: explain grid masking and how it (was) used.

NCDAQ Response: The modeling only included months that were affected by the change in RVP. The RVP period ends on September 15th. By September 30th, there are no differences in predicted ozone or particle pollution between the base and RVP simulations.

USEPA Comment 6: Page 2-10- Tables 2.3-3 and 2.3-4 show the starting ozone design values and the chance in design value associated with the model sensitivity runs.

a. Please explain the Base 2005 and Future 2016 ozone design values

NCDAQ Response: For the 2005 and 2016 model runs, the 2005 monitored design values are set as the 'base' or reference ozone value.

b. Please explain how the change in design values was calculated.

NCDAQ Response: The 'future' design value that shows the impacts of the sensitivities is computed using the relative response factors (RRFs) at the area monitors using the Model Attainment Test Software.

c. If the change in ozone was calculated using the relative response factors (RRFs), please include the actual RRF values.

NCDAQ Response: The document is revised to include RRFs values.

NCPCM Comment 1: NCPCM agrees with the NCDAQ request that the USEPA relax the current 7.8 psi RVP motor gasoline volatility requirement for four Triad counties during the summertime ozone season.

NCDAQ Response: The NCDAQ acknowledges this comment. No changes are required.

NCPCM Comment 2: NCPCM requests the USEPA to grant the enforcement discretion request made by the Department of Environment of Natural Resources on behalf of the Governor of North Carolina such that correct gasoline product could be supplied for the upcoming fuel season. The NCPCM also states that the price difference of 7.8 RVP gasoline has escalated to an average of 9.4 cents more per gallon during the past two summers.

NCDAQ Response: The NCDAQ acknowledges the need to plan for and make the necessary arrangement to ensure correct gasoline product is delivered to North Carolina customers. The NCDAQ is awaiting the USEPA's response on the enforcement discretion, and is making a request to the USEPA to issue the public notices of the State Implementation Plan (SIP) and USEPA rulemaking at the same time.

Attachments to Public Notice Report

1) Written comments from R. Scott Davis, Chief of the Air Planning Branch, USEPA.

2) Written comments received from Gary F. Harris on behalf of the North Carolina Petroleum and Convenience Marketers.

2) Public Notice Announcement by the North Carolina Department of Environment and Natural Resources.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 25, 2013

Ms. Sheila C. Holman, Director
Division of Air Quality
North Carolina Department of
Environment and Natural Resources
1641 Mail Service Center
Raleigh, North Carolina 27699-1641

Dear Ms. Holman:

Thank you for your letter dated February 21, 2013, transmitting a prehearing package regarding the supplement to the Maintenance Plan for the Greensboro/Winston-Salem/High Point, NC (Triad) 1-Hour Ozone Maintenance Area. In this supplement, the North Carolina Division of Air Quality is requesting the U.S. Environmental Protection Agency to relax the federal 7.8 pounds per square inch Reid Vapor Pressure (RVP) requirement for four Triad counties subject to the ozone season gasoline volatility standard contained in 40 CFR 80.27(a)(2). These revisions were the subject of a public comment period beginning February 21, 2013, with written comments due by the close of business on March 25, 2013. We have completed our review of the prehearing submittal and offer the following comments in the enclosure.

Beyond the content of your prehearing submission, there are several criteria applicable to relaxing the federal RVP requirements in areas which have low volatility gasoline controls in place. Once North Carolina has submitted, and the EPA has acted through public notice and comment rulemaking on the state implementation plan submission and the Area has in place a maintenance plan which no longer relies on the federal low volatility fuel program to maintain attainment, then the EPA Administrator will be in a position to initiate public notice and comment rulemaking to change the federal RVP gasoline standard.

We look forward to continuing to work with you and your staff. If you have any questions, please contact Ms. Lynorae Benjamin, Chief, Regulatory Development Section at (404) 562-9040, or have your staff contact Nacosta C. Ward at (404) 562-9140.

Sincerely,

R. Scott Davis

R. Scott Davis
Chief
Air Planning Branch

Enclosure

Enclosure - Comments on the Supplement to the Maintenance Plan for the Greensboro/Winston-Salem/High Point, NC (Triad) 1-Hour Ozone Maintenance Area Demonstration

1. Page 2-6- The text says "Although there is a slight increase in NOx [nitrogen oxides] and VOC [volatile organic compound] emissions between 2007 and 2018,..." It is unclear what increase in emissions this is referencing. It appears all emissions go down between 2007 and 2018.

2. Page 2-8- The text says that maximum percent increase was applied to the mobile emissions for all hours. Table 2.3-1 shows the average and maximum increase for different pollutants, including VOC and several different VOC species. Please explain what "maximum percent " increase was applied to what species in the modeling.

3. Page 2-9- Please provide the 2005 and 2016 NOx and sulfur dioxide (SO_2) emissions (before and after adjustments) for the three coal fired power plants (Buck, Dan River, and Riverbend) that are converting to natural gas.

4. Please explain how the 1.43 tons per day number day of VOC emissions increase on page 2-4 was developed.

5. Comments on the 110(l) demonstration used the EPA's Mercury and Air Toxics (MATS) modeling platform for 2005 and 2016 to model ozone and particle pollution:

    a. Please include more details on the EPA MATS modeling platform, including basic information, such as a map of the modeling domain, grid resolution, and emissions summaries for the Triad area for the 2005 and 2016 modeling cases.

    b. It is unclear why the grid resolution of the modeling platform is suitable for simulating the very small emissions changes for ozone and particulate matter in the Triad area. We recommend that the SIP discuss the applicability and suitability of the chosen modeling platform for addressing the small emissions changes due to the RVP relaxation in the Triad.

    c. The revision states that a conservative estimate of NOx and SO_2 emissions for the electric generating units (EGUs) being shutdown surrounding the Triad area was used in the modeling. Please explain why 85 percent of the NOx emissions were used to adjust the switch of coal-fired EGUs to combustion turbines at Buck, Dan River, and Riverbend in 2005.

    d. The ozone monitoring season for North Carolina is from April until October. It is unclear why the modeling did not include the month of October. From page 2-9: explain grid masking and how it used.

6. Page 2-10- Tables 2.3-3 and 2.3-4 show the starting ozone design values and the change in design value associated with the model sensitivity runs.

    a. Please explain the Base 2005 and Future 2016 ozone design values.

b. **Please explain how the change in design values was calculated.**

c. **If the change in ozone was calculated using relative response factors (RRFs), please include the actual RRF values.**

NCPCM
North Carolina Petroleum & Convenience Marketers
Fueling North Carolina's Future

7300 Glenwood Avenue
Raleigh, NC 27612

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March 18, 2013

Sushma Masemore, P.E., Chief
Planning Section
NC DENR, Division of Air Quality (NCDAQ)
1641 Mail Service Center
Raleigh, NC 27699-1641

RE Redesignation Demonstration and Maintenance Plan for Greensboro/ Winston-Salem/High Point, NC (Triad) 8-hour Ozone Maintenance Area

Dear Ms. Masemore:

The North Carolina Petroleum & Convenience Marketers (NCPCM) support the North Carolina Department of Air Quality (NCDAQ) in requesting that the United States Environmental Protection Agency (US EPA) relax the current 7.8 psi Reid Vapor Pressure (RVP) motor gasoline volatility requirement for four Triad counties during the summertime ozone season. The NC DAQ maintenance plan document demonstrates that the current federal gasoline standard is unnecessary to maintain the ozone standard, and the RVP relaxation to 9.0 psi gasoline will not interfere with attainment of the current ozone standard.

Furthermore, NCPCM requests that the US EPA grant NC DAQ "enforcement discretion" for the Triangle and Triad MSA's per the Governor's letter of December 2012 and NC DENR Secretary Skvarla's letter of February 2013. Enforcement discretion will give the US EPA the needed time for the maintenance plan to be processed and to revise its rule. Hopefully, US EPA will grant enforcement discretion by March 20, 2013. This would allow the petroleum industry time to implement the necessary planning and logistics for supplying the correct motor gasoline by May 1 and June 1 of 2013.

During the past two summers the price difference of 7.8 RVP gasoline has escalated to an average of 9.4 cents more per gallon. This has cost consumers of motor gasoline, government fleets and businesses approximately $40 million each summer in nine NC counties.

Please notify us if we may be of further assistance.

Respectfully,

Gary F. Harris
Executive Director

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
PUBLIC NOTICE

PURPOSE:

The North Carolina Department of Environment and Natural Resources, Division of Air Quality (NCDAQ), hereby gives notice regarding its Pre-hearing Draft Supplement Section 110(a)(1) Maintenance Plan for the 1997 8-hour Ozone Standard for the Greensboro/ Winston-Salem/High Point, NC (Triad) Maintenance Area. Persons wishing to submit comments or request a public hearing are invited to do so. The NCDAQ is requesting the relaxation of the current federal gasoline standard in the Triad area.

COMMENT PROCEDURES:

Any person wishing to comment may submit a written statement for inclusion in the record of proceedings regarding the Pre-hearing Draft Supplement for the Triad Area. Written comments should be received by no later than March 25, 2013.

REQUESTS FOR A PUBLIC HEARING:

Requests for a public hearing must be in writing and include a statement supporting the need for such a hearing, an indication of your interest in the subject, and a brief summary of the information intended to be offered at such hearing. A public hearing will be scheduled if requested. A separate notice will be announced for the hearing including the date, time and location. Written requests for a public hearing should be received no later than March 25, 2013 and addressed to Phyllis Jones, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641.

INFORMATION:

Copies of the Triad Area Pre-hearing Draft Supplement Section 110(a)(1) Maintenance Plan may be downloaded from the NCDAQ website at http://www.ncair.org/planning/nc_sip.shtml.

Comments can be submitted electronically to:
daq.publiccomments@ncdenr.gov
(Please type "Draft Triad Supplement" in the subject line)

Comments can be mailed or faxed to:
Phyllis Jones
NC Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
Fax: (919) 707-8715

The Pre-hearing Draft Supplement for the Triad Area may be reviewed in person during normal business hours at the following North Carolina Department of Environment and Natural Resources, Division of Air Quality offices:

Raleigh Central Office, Planning Section	(919)707-8403
Winston-Salem Regional Office	(336)771-5000

Date: 2/21/2013

Sheila C. Holman

Sheila C. Holman, Director