# FINAL

Appendix E Photochemical Modeling Analysis of the Impact of NOx Emissions Increase on Ozone Concentrations in the Charlotte Area

Non-Interference Demonstration for Changing the Vehicle Model Year Coverage for 22 Counties Subject to North Carolina's Motor Vehicle Emissions Inspection and Maintenance (I&M) Program (This page intentionally left blank)

### **TABLE OF CONTENTS**

1.0	INTRODUCTION AND SCOPE	1
2.0	METHODOLOGY	1
3.0	RESULTS	4
4.0	SUMMARY AND CONCLUSIONS	6

### LIST OF TABLES

Table E-1.	Geographic Elements of Domains used in Photochemical Modeling	2
Table E-2.	NOx Emission Increases due to changes in the I&M Program, and Percentage of Annual 2023el Surface NOx Emissions	3
Table E-3.	Base and Future Year Modeled Ozone, Relative Response Factors (RRFs), and Future Year Design Values (DVs) for the Hybrid2023 Model Run	1
Table E-4.	Base and Future Year Modeled Ozone, Relative Response Factors (RRFs), and Future Year Design Values (DVs) for the IM1_2023 Model Run	1
Table E-5.	Base and Future Year Modeled Ozone, Relative Response Factors (RRFs), and Future Year Design Values (DVs) for the IM1.5_2023 Model Run	5
Table E-6.	Change in Ozone Design Value Concentrations in the 2023 Future Year Modeling with 1 Percent and 1.5 Percent Increases in Surface NOx Emissions	5

## LIST OF FIGURES

Figure E-1. Map of the CAMx Photochemical Modeling Domain	2
E'erre E 2 A des Marte for Soufress Authors and Erriceiters Adirectors at a Des to Descend	
Figure E-2. Area Mask for Surface Anthropogenic Emissions Adjustments Due to Proposed	
Changes to the I&M Program	4

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### **1.0 INTRODUCTION AND SCOPE**

The North Carolina Division of Air Quality (DAQ) performed an air quality modeling analysis to evaluate the potential impact of NOx emissions increases associated with changing the vehicle model year coverage of the motor vehicle emissions inspection and maintenance (I&M) program on ozone concentrations in the Charlotte maintenance area for the 2008 ozone National Ambient Air Quality Standard (NAAQS). Although the Charlotte area is in compliance with the more stringent 2015 ozone NAAQS, it was selected for this analysis because the 2014-2016 ozone design value for Mecklenburg County is 70 parts per billion (ppb) (a violation of the standard occurs when the 4<sup>th</sup> highest 8-hour concentration averaged over 3 consecutive years, defined as the design value, exceeds 71 ppb). The 2014-2016 ozone design values for counties adjacent to Mecklenburg County range from 65 ppb to 68 ppb.

### 2.0 METHODOLOGY

The DAQ utilized version "el" of the 2011 U.S. Environmental Protection Agency's (EPA) modeling platform for this photochemical modeling analysis. The EPA used Comprehensive Air Quality Model with Extensions (CAMx), version 6.32 (v6.32) for the 2011 base year and 2023 future base case air quality modeling to identify receptors and quantify contributions for the 2015 NAAQS transport assessment. The 2011 base year and 2023 future year were benchmarked on the DAQ's computing cluster. The differences in modeled ozone in the 2011 base year and the 2023 future year were less than 0.1 ppb across the domain, and the predicted design values matched those computed by EPA.<sup>1</sup> The relevant agreement obtained between the DAQ's benchmarking shows that subsequent modeling performed to do scenario analyses for the I&M program change produces reasonable results of air quality impacts.

The 2011 EPA modeling used a national 12-kilometer (km) domain. The EPA has used this modeling platform for numerous regulations, including ozone transport and regional haze. The DAQ feels comfortable in using the 12-km modeling to estimate the impacts on ozone due to changes in the I&M program. The 12-km modeling domain extend vertically from the surface to 50 millibars (approximately 20-km) vertically using a sigma-pressure coordinate system. Predictions from the global GEOS-chem simulation were used to provide initial and boundary concentrations for simulations in the 12-km domain. The 12-km modeling domains are shown in Figure E-1. Table E-1 provides geographic specifications for these domains.

<sup>&</sup>lt;sup>1</sup> More information on EPA's 2011 modeling can be found at https://www.epa.gov/air-emissions-modeling/2011-version-63-platform\_and https://www.epa.gov/sites/production/files/2017-01/documents/aq\_modeling\_tsd\_2015\_o3\_naaqs\_preliminary\_interstate\_transport\_assessmen.pdf.



Figure E-1. Map of the CAMx Photochemical Modeling Domain

Photochemical Modeling Configuration				
	National Grid			
Map Projection	Lambert Conformal Projection			
Grid Resolution	12-km			
Coordinate Center	97 deg W, 40 deg N			
True Latitudes	33 deg N and 45 deg N			
Dimensions	396 x 246 x 14			
X, Y Origin	-2412000m, -1620000m			
Vertical Extent	25 Layers: Surface to 50 millibar level			

Table E-1. Geographic Elements of Domains used in Photochemical Modeling

The DAQ had concerns with the 2023el point emissions, namely that projected NOx emissions are too low for electricity generating units (EGUs). The EPA 2023el emissions assumed full implementation of the proposed Clean Power Plan (CPP), which led to unrealistically low NOx emissions for EGUs since the CPP is no longer being implemented. For a simple fix, the DAQ ran a hybrid version of 2023 (2023hybrid) that used the 2023el surface emissions (i.e., onroad, nonroad, biogenic, area, marine, and locomotive), while point source emissions (EGU point, non-EGU point, and fires point) from 2017eh were substituted for the point 2023el emissions. The 2017eh EGU point emissions are greater compared to 2023el and are more representative of the latest EGU emission forecast for 2023. The 2023hybrid run was used to establish baseline design values in the future year.

For the photochemical modeling analysis, two scenarios were modeled. The first was an increase in surface NOx emissions of 1 percent across the 7-county area, consistent with the

increase within Mecklenburg county, the most populous of the seven counties and which accounts for nearly half of the surface NOx emissions in the seven-county metropolitan statistical area (MSA). The other modeling scenario increased surface NOx emissions by 1.5 percent, which will provide a conservative estimate of ozone impacts by the increase in NOx emissions over the seven counties. The emission increase was derived from the estimated increase in emissions due to changes in the I&M program, and then calculating the percent increase in emissions to the 2023el emissions. Table E-2 provides a summary of annual NOx emissions for the seven counties in the Charlotte area.

County	Emissions Increase due to I&M Program Change (Tons/Day) <sup>1</sup>	Estimated Increase in Annual Emissions (Tons/Year) <sup>1</sup>	2023el Annual Surface NOx (Tons/Year)	Percent Increase to 2023 Emissions
Cabarrus	0.07	26	1,596	1.6%
Gaston	0.09	33	1,806	1.8%
Iredell	0.08	29	1,828	1.6%
Lincoln	0.04	15	746	2.0%
Mecklenburg	0.24	88	9,122	1.0%
Rowan	0.08	29	1,596	1.8%
Union	0.07	26	2,004	1.3%
Totals	0.67	246	18,698	1.3%

## Table E-2. NOx Emission Increases due to changes in the I&M Program, and Percentage of Annual 2023el Surface NOx Emissions

<sup>1</sup> Tons per summery day based on 2018 MOVES modeling.

For 2023, surface NOx emissions were adjusted upwards by 1 percent (Run IM1\_2023) and 1.5 percent (Run IM1.5\_2023) in each of the seven Charlotte area counties. The 1 percent increase approximates the increase in Mecklenburg county, and the 1.5 percent increase is a conservative over-estimate of the emission increase in the entire Charlotte area. These adjustments were applied to the grid cells covering the seven counties (see Figure E-2). A grid cell was included in the grid cell mask if over 50 percent of the cell area includes one or more of the counties within the Charlotte MSA.

In all, a total of 4 model runs were made from March 20 to September 30, 2011. First, EPA's 2011el platform was rerun to benchmark EPA2011el on the DAQ's computing cluster. Then the 2023hybrid was run to establish a future baseline, and finally the two sensitivity runs were run. The Model Attainment Test Software was used to compute relative response factors (RRFs) for the 2023hybrid run and each of the sensitivity runs at the area monitors.



Figure E-2. Area Mask for Surface Anthropogenic Emissions Adjustments Due to Proposed Changes to the I&M Programu

#### **3.0 RESULTS**

The modeling results for the Hybrid2023 model run are presented in Table E-3, and the results for the IM1\_2023 and IM1.5\_2023 sensitivity model runs are presented in Tables E-4 and E-5, respectively. The change in future year design values at monitors in and near the Charlotte area associated with the proposed changes in the I&M program is shown in Tables E-6. For the sensitivity with a 1 percent increase (IM1\_2023), the maximum increase in ozone design value was 0.1 ppb. For the sensitivity with a 1.5 percent increase (IM1.5\_2023), the maximum increase in ozone design value was 0.2 ppb.

		2009-2013	2009-	Model	Model		Average	Max
AIRS ID	County	Average DV	2013 Max DV	Base Ozone	Future Ozone	RRF	Future DV	Future DV
371090004	Lincoln	72.7	75	87.0213	66.6688	0.7661	55.7	57.4
371190041	Mecklenburg	80	83	104.283	82.1522	0.7878	63.0	65.3
371191005	Mecklenburg	75	77	104.298	81.7021	0.7834	58.7	60.3
371191009	Mecklenburg	79.7	83	100.62	76.0776	0.7561	60.2	62.7
371590021	Rowan	75.3	78	89.0979	65.457	0.7347	55.3	57.3
371590022	Rowan	75	77	94.3473	69.3051	0.7346	55.0	56.5
371790003	Union	71	73	93.8141	69.4276	0.7401	52.5	54.0

Table E-3. Base and Future Year Modeled Ozone, Relative Response Factors (RRFs), and<br/>Future Year Design Values (DVs) for the Hybrid20231 Model Run

<sup>1</sup> 2023el surface emissions, 2017eh point emissions.

AIRS ID	County	2009- 2013 Average DV	2009- 2013 Max DV	Model Base Ozone	Model Future Ozone	RRF	Average Future DV	Max Future DV
371090004	Lincoln	72.7	75	87.0213	66.7334	0.7669	55.7	57.5
371190041	Mecklenburg	80	83	104.283	82.2722	0.7889	63.1	65.4
371191005	Mecklenburg	75	77	104.298	81.8222	0.7845	58.8	60.4
371191009	Mecklenburg	79.7	83	100.62	76.2027	0.7573	60.3	62.8
371590021	Rowan	75.3	78	89.0979	65.5351	0.7355	55.3	57.3
371590022	Rowan	75	77	94.3473	69.41	0.7357	55.1	56.6
371790003	Union	71	73	93.8141	69.5377	0.7412	52.6	54.1

 Table E-4. Base and Future Year Modeled Ozone, RRFs, and Future Year DVs for the IM1\_2023<sup>1</sup> Model Run

<sup>1</sup> 1 percent increase in surface NOx for 2023.

## Table E-5. Base and Future Year Modeled Ozone, RRFs, and Future Year DVs for theIM1.5\_20231 Model Run

AIRS ID	County	2009-2013 Average DV	2009- 2013 Max DV	Model Base Ozone	Model Future Ozone	RRF	Average Future DV	Max Future DV
371090004	Lincoln	72.7	75	87.0213	66.7655	0.7672	55.7	57.5
371190041	Mecklenburg	80	83	104.283	82.3319	0.7895	63.1	65.5
371191005	Mecklenburg	75	77	104.298	81.8818	0.7851	58.8	60.4
371191009	Mecklenburg	79.7	83	100.62	76.2647	0.7579	60.4	62.9
371590021	Rowan	75.3	78	89.0979	65.574	0.736	55.4	57.4
371590022	Rowan	75	77	94.3473	69.4624	0.7362	55.2	56.6
371790003	Union	71	73	93.8141	69.5924	0.7418	52.6	54.1

<sup>1</sup> 1.5 percent increase representing a conservative estimate of the increase in NOx for 2023.

# Table E-6. Change in Ozone Design Value Concentrations in the 2023 Future YearModeling with 1 Percent and 1.5 Percent Increases in Surface NOx Emissions

AIRS	County	Hybrid2023 <sup>1</sup> Average DV	IM1_2023 <sup>2</sup> Average DV	DV Increase IM1_2023 <sup>2</sup>	IM1.5_2023 <sup>3</sup> Average DV	DV Increase IM1.5_2023 <sup>3</sup>
371090004	Lincoln	55.7	55.7	0.0	55.7	0.0
371190041	Mecklenburg	63	63.1	0.1	63.1	0.1
371191005	Mecklenburg	58.7	58.8	0.1	58.8	0.1
371191009	Mecklenburg	60.2	60.3	0.1	60.4	0.2
371590021	Rowan	55.3	55.3	0.0	55.4	0.1
371590022	Rowan	55	55.1	0.1	55.2	0.2
371790003	Union	52.5	52.6	0.1	52.6	0.1

<sup>1</sup> 2023el surface emissions, 2017eh point emissions.

<sup>2</sup> 1 percent increase in surface NOx for 2023.

<sup>3</sup> 1.5 percent increase representing a conservative estimate of the increase in NOx for 2023.

#### 4.0 SUMMARY AND CONCLUSIONS

The DAQ applied a conservative modeling approach to estimate the potential increase in ozone design values in the Charlotte MSA associated with an increase in emissions due to proposed changes to modify the vehicle model year coverage of the I&M program. The proposed changes to the I&M program are estimated to increase NOx emissions in 2018 by about 0.24 ton per summer day for Mecklenburg County, and 0.67 ton per summer day for the seven-county Charlotte maintenance area. These increased emissions represent a 1 percent and 1.3 percent increase in surface NOx emissions for Mecklenburg County and the Charlotte maintenance area, respectively. To estimate the potential impacts on ozone concentrations, the DAQ used an EPA modeling platform for 2023, and increased surface NOx emissions by 1 percent and 1.5 percent in each of the seven Charlotte area counties. The 1 percent increase approximates the increase in Mecklenburg county, and the 1.5 percent increase is a conservative over-estimate of the potential NOx emissions increase in the entire Charlotte area.

Modeling results for 2023 show very small increases in ozone concentrations at area monitors ranging from 0.1 ppb to 0.2 ppb. The 2014-2016 ozone design value for the Charlotte MSA is 0.70 ppb. Thus, from this photochemical modeling analysis for the Charlotte area, the DAQ concludes that the proposed changes to the I&M program will not interfere with attainment and maintenance of the 2015 8-hour ozone NAAQS. Furthermore, based on the revised maintenance plan for the Charlotte maintenance area for the 2008 8-hour ozone NAAQS, total anthropogenic NOx emissions for all sectors combined are expected to decline from 84.7 tons summer day in 2018 to 66.4 tons summer day in 2022 and 60.3 tons summer day in 2026.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> See Table 3.11 in the *Revised Maintenance Plan for The Charlotte-Gastonia-Salisbury, North Carolina* 2008 8-*Hour Ozone Marginal Nonattainment Area*, North Carolina Department of Environmental Quality, Division of Air Quality, July 2018.

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Appendix F North Carolina's Obligations under the NOx SIP Call Regarding Proposed Changes to the State's Vehicle Emissions I&M Program

Non-Interference Demonstration for Changing the Vehicle Model Year Coverage for 22 Counties Subject to North Carolina's Motor Vehicle Emissions Inspection and Maintenance (I&M) Program (This page intentionally left blank)



ROY COOPER Governor MICHAEL S. REGAN Secretary MICHAEL ABRACZINSKAS Director

> Trey Glenn Regional Administrator USEP A Region 4 Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303-8960

Subject: North Carolina's Obligations under the NOx SIP Call Regarding Proposed Changes to the State's Vehicle Emissions I&M Program

Dear Mr. Glenn:

This letter explains why the North Carolina Division of Air Quality (DAQ) believes that the states obligations under the NOx State Implementation Plan (SIP) call are not affected by any emissions increases associated with the proposed changes to the vehicle emissions inspection and maintenance (I&M) program per Session Law 2017-10.

#### Background

On August 7, 2002, North Carolina submitted NC-104 to the U.S. Environmental Protection Agency (EPA) as a component of its response to the NOx SIP call requirements. The rule revisions expanded the I&M program from 9 to 48 counties pursuant to North Carolina Session Law 1999-328, Section 3.1(d) and incorporated the on-board diagnostics (OBD) testing procedure. The addition of 39 counties to the I&M program pursuant to Section 3.1(d) of the Session Law was initially ratified to satisfy the 1997 8-hour ozone national ambient air quality standards (NAAQS) (80 FR 6455). However, the expanded I&M program coverage area was included in the SIP submittal alongside the newly adopted OBD testing procedures to support the establishment of credits for North Carolina's NOx budget and trading program. On October 30, 2002, EPA approved the I&M rule revisions and North Carolina's use of the I&M credits for the NOx SIP call budget and trading program (<u>67 FR 66056</u>). The ozone season I&M NOx emissions credits were 914 tons in 2004; 2,078 tons in 2005; 3,279 tons in 2006; and 4,385 tons in 2007 and beyond.<sup>1</sup> These credits were used at the beginning of the program until the affected stationary sources could install and operate controls needed to meet their emissions allowances.

<sup>&</sup>lt;sup>1</sup> For 2004, the ozone season ran from June 1 through Sept. 30. For subsequent years, the ozone season ran from May 1 through Sept. 30.



North Carolina Department of Environmental Quality | Division of Alr Quality 217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641 919.707.8400 July 11, 2018

Trey Glenn July 11, 2018 Page 2

On November 19, 2008, North Carolina submitted NC-137 to repeal several NOx SIP call provisions as a component of its response to the Clean Air Interstate Rule (CAIR). This action was conducted by the state since EPA no longer operated a separate banking and trading program for NOx SIP call sources when the CAIR program started on January 1, 2009. On May 9, 2013, EPA approved North Carolina's request to remove its NOx SIP banking and trading program rules from its SIP (78 FR 27065). Elements of the NOx SIP call that were not carried forward into the CAIR ozone season trading program, such as the I&M credits, remained in effect.

The 2017 session of the North Carolina General Assembly enacted Session Law 2017-10, Senate Bill 131 (An Act to Provide Further Regulatory Relief to the Citizens of North Carolina). Section 3.5(a) of the Act amended *North Carolina General Statute (NCGS) §143-215.107A(c)* to remove 26 of 48 counties from North Carolina's I&M program. For the 22 counties remaining in the I&M program, the Act also amended *NCGS §20-183.2(b)* by changing the vehicle model year coverage.<sup>2</sup>

On November 17, 2017, the DAQ submitted to EPA a revision to its I&M SIP and a Clean Air Act (CAA) Section 110(l) noninterference demonstration requesting EPA approval to remove the 26 counties from North Carolina's I&M program. The DAQ will be submitting in July 2018 a separate package requesting EPA approval to revise the vehicle model year coverage in the 22 counties remaining in the I&M program (this package will include revisions to rule 15A NCAC 02D.1002, a revision to its I&M SIP, a CAA Section 110(l) noninterference demonstration, and revisions to the Charlotte area maintenance plan for the 2008 ozone NAAQS.

### Analysis

The primary focus of the NOx SIP call was to lower ozone season emissions from large, stationary source NOx emitters such as electricity generating units (EGUs). CAIR later replaced the NOx SIP call, and subsequently the Cross-State Air Pollution Rule (CSAPR) replaced CAIR. These programs, along with North Carolina's Clean Smoke Stack Act (CSA) and economic drivers such as natural gas prices and renewable energy investments, have significantly reduced ozone season NOx emissions well below the original NOx SIP call budget for EGUs.<sup>3</sup> This point is illustrated in Table 1, which compares the EGU NOx SIP Call budget to actual emissions in 2007 and 2017. Actual EGU emissions in 2007 and 2017 were 23 percent and 60 percent below the NOx SIP Call budget, respectively.

<sup>&</sup>lt;sup>2</sup> Session Law 2017-10 changed the vehicle model year coverage to (i) a vehicle with a model year within 20 years of the current year and <sup>older</sup> than the three most recent model years, or (ii) a vehicle with a model year within 20 years of the current year and has 70,000 miles or more on its odometer. Previously, the program applied to (i) a 1996 or later model year vehicle and older than the three most recent model years, or (ii) a 1996 or later model year vehicle and older than the three most recent model years, or (ii) a 1996 or later model year vehicle and older than the three most recent model years, or (ii) a 1996 or later model year vehicle and older than the three most recent model years, or (ii) a 1996 or later model year vehicle and has 70,000 miles or more on its odometer.

<sup>&</sup>lt;sup>3</sup> In June 2002, the North Carolina General Assembly enacted the North Carolina CSA, which required coal-fired power plants in North <sup>Carolina</sup> to reduce annual NOx emissions by 77% by 2009.<sup>3</sup> These power plants were also required to reduce annual SO<sub>2</sub> emissions by 49% by 2009 and 74% by 2013. The utilities have reduced NOx emissions by 83% and SO<sub>2</sub> emissions by 89% relative to 1998 emissions levels.

With the requirement to meet annual emissions caps and disallowing the purchase of NOx credits to meet the caps, the CSA reduced NOx emissions beyond the requirements of the NOx SIP Call Rule even though the CSA did not limit emissions only during the ozone season. The CSA emissions caps were submitted to EPA for adoption into the SIP in August 2009 and were approved in September 2011. These regulations are both state and federally enforceable.

Trey Glenn July 11, 2018 Page 3

	2007	2017
NOx SIP Call Budget, Tons	31,451	31,451
Actual Emissions, Tons	24,177	12,545
Below Budget, Tons	7,274	18,906
Below Budget, Percent	23%	60%

# Table 1. Comparison of Ozone Season NOx SIP Call Budget toActual Emissions for Electricity Generating Units (EGUs)

Table 2 compares the impact of the estimated ozone season NOx emissions increases due to the proposed changes to the I&M program on EGU reductions and NOx SIP Call I&M credits. Using EPA's Motor Vehicle Emission Simulator (MOVES2014), the DAQ estimates that removing the 26 counties from the I&M program, and revising the vehicle model year coverage in the 22 counties remaining in the I&M program, will increase ozone season NOx emissions by 611 tons and 311 tons, respectively. Together, total ozone season NOx emissions are estimated to increase by 922 tons. In 2017, EGU emissions were 18,906 tons (60 percent) below the NOx SIP Call budget for EGUs. The proposed changes to the I&M program would lower the EGU reduction by about 5 percent to 17,984 tons. Thus, based on this analysis, the DAQ concludes that the ozone season NOx emissions increase associated with the proposed changes to the I&M program have no impact on North Carolina's obligations under the NOx SIP call.

# Table 2. Impact of NOx Emissions Increases due to Proposed Changesto I&M Program on EGU Reductions and NOx SIP Call I&M Credits

I&M Emissions Increase in 2018, Tons	
26 Counties	611
22 Counties	311
48 County Total I&M Increase	922
EGU Reduction in 2017 (from Table 1)	18,906
EGU Reduction in 2017 - I&M Increase	17,984

### **Conclusions**

The DAQ concludes that the proposed changes to North Carolina's I&M program does not impact NC's obligations under the NOx SIP Call for the following reasons:

• The NOx trading program that made use of those early I&M allowances was repealed and replaced with CAIR. Therefore, the I&M credits were not used to meet North Carolina's previous obligations under CAIR or current obligations under Phase I of CSAPR.

Trey Glenn July 11, 2018 Page 4

Actual EGU emissions in 2007 and 2017 were 23 percent and 60 percent below the NOx SIP Call budget, respectively. After accounting for the 922-ton ozone season NOx emissions increase associated with the proposed changes to the I&M program, the remaining EGU reduction of 17,984 tons would be 57 percent below the NOx SIP call budget for EGUs. The significant NOx emissions reduction in the EGU sector more than offset the increase in ozone season NOx emissions associated with the proposed changes to the I&M program and have no impact on North Carolina's obligations under the NOx SIP call.

Thank you for considering this additional information. If you should have any questions, please contact Randy Strait at (919) 707-8721 or <u>randy.strait@ncdenr.gov</u>.

Sincerely,

Michel a abrange

Michael A. Abraczinskas, Director Division of Air Quality, NCDEQ

MAA/rps

Enclosure

 CC: Michael Pjetraj, DAQ Sushma Masemore, DAQ Randy Strait, DAQ Scott Davis, USEPA Lynorae Benjamin, USEPA William Barnette, Forsyth County Office of Environmental Assistance and Protection Leslie Rhodes, Mecklenburg County Air Quality David Brigman, Western Regional Air Quality Agency

#### Addendum

The following information is provided to explain how the ozone season emissions provided in Table 2 of the letter were calculated using the ozone season day NOx emissions increases associated with changing the vehicle model year coverage for the 22 counties remaining in the I&M program and removing 26 counties from the I&M program.

For 2004, the ozone season for the NOx SIP call ran from June 1 through September 30. Starting in 2005, the ozone season ran from May 1 through September 30 of each year, covering a total of 154 days. The 922-ton ozone season NOx increase was calculated by summing the daily increase associated with the proposed changes to the vehicle model year coverage for the 22 counties remaining in the I&M program (2.02 tons/day), and removing 26 counties from the I&M program (3.97 tons/day), and multiplying the total (5.99 tons/day) by 154 days.

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## **Appendix G**

North Carolina Department of Environmental Quality Public Notice and EPA No Comment Letter

Non-Interference Demonstration for Changing the Vehicle Model Year Coverage for 22 Counties Subject to North Carolina's Motor Vehicle Emissions Inspection and Maintenance (I&M) Program This page intentionally left blank.

# NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY PUBLIC NOTICE

PURPOSE:	The North Carolina Department of Environmental Quality, Division of Air Quality (DAQ) hereby gives notice regarding its Pre-hearing Draft of the vehicle emissions inspection and maintenance (I&M) program State Implementation Plan (SIP) Revision, Clean Air Act (CAA) Section 110(1) Noninterference Demonstration, and Revised Maintenance Plan for the Charlotte-Gastonia-Salisbury Area for the 2008 8-hour ozone standard related to changing the vehicle model year coverage for 22 counties subject to the I&M program. This proposed SIP revision and related demonstrations comply with Section 3.5.(b) of Session Law 2017-10 which amended North Carolina General Statute §20-183.2(b) by proposing to change the vehicle model year coverage to a rolling 20-year cycle based on the most current year. Based on a technical study of county-level emissions increases associated with the proposed I&M program change, and current ambient air quality data, the DAQ concludes that changing the vehicle model year coverage in the 22 counties to revise its I&M SIP to change the vehicle model year coverage in the 22 counties, which is required before North Carolina can officially implement the I&M program change. Persons wishing to submit comments or request a public hearing are invited to do so.
COMMENT PROCEDURES:	Any person wishing to comment may submit a written statement for inclusion in the record of proceedings regarding the Pre-hearing Draft of the I&M SIP Revision, CAA Section 110(1) Noninterference Demonstration, and Revised Maintenance Plan for the Charlotte Area for changing the vehicle model year coverage for 22 counties subject to North Carolina's motor vehicle emissions I&M program. Written comments should be received by no later than February 26, 2018.
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 February 26, 2018, and addressed to Randy Strait, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641.
INFORMATION:	Copies of the Pre-hearing Draft of the SIP Revision, CAA Section 110(l) Noninterference Demonstration, and Revised Maintenance Plan for the Charlotte Area for changing the vehicle model year coverage for 22 counties subject to North Carolina's motor vehicle emissions I&M program may be downloaded from the DAQ website at https://deq.nc.gov/about/divisions/air-quality/air-quality-planning/state-implementation- plans/inspection-maintenance-program-sip. Comments can be submitted to:
Date: 1/22/18	Michael Abraczinskas Director

Michael Abraczinskas, Director



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

February 28, 2018

Michael A. Abraczinskas, Director Division of Air Quality North Carolina Department of Environmental Quality 1641 Mail Service Center Raleigh, North Carolina 27699-1641

Dear Mr. Abraczinskas:

Thank you for your letter dated January 23, 2018, transmitting a prehearing package regarding the revisions to the Inspection and Maintenance (I&M) Program, Section 110(I) Noninterference Demonstration, and Revised Maintenance Plan for the Charlotte-Gastonia-Salisbury, NC 2008 8-Hour Ozone Marginal Nonattainment Area related to changing the vehicle model year coverage for 22 counties subject to North Carolina's motor vehicle I&M program. We have completed our review of the submittal and do not have comments at this time.

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

Sincerely,

Ritat

R. Scott Davis Chief Air Planning and Implementation Branch