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October 5, 2011

VIA FEDERAL EXPRESS **(8768 9703 1401)**

The Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20004
(202) 272-0167

Re: EPA-HQ-OAR-2009-0491
State of Georgia's Petition for Reconsideration and Stay of the Cross-State Air Pollution Rule

Dear Administrator Jackson:

Enclosed please find the State of Georgia's Petition for Reconsideration and Stay of the United States Environmental Protection Agency's Final Rule, Federal Implementation Plans; Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48208 (Aug. 8, 2011), commonly referred to as the Cross-State Air Pollution Rule or CSAPR. Georgia's petition articulates the reasons why Georgia believes EPA should reconsider CSAPR decisions that are unique to Georgia and details the harm that Georgia will suffer if the rule is implemented on January 1, 2012 as currently scheduled.

We appreciate your consideration of this matter, and welcome the opportunity to discuss these issues further with EPA staff. Please contact me at (404) 657-3977 or ddeshazo@law.ga.gov if you have any questions or require further information.

Sincerely,

Diane L. DeShazo

DIANE L. DeSHAZO
Senior Assistant Attorney General

Enclosures

BEFORE THE ADMINISTRATOR OF
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In Re:	)	
Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, Final Rule, 76 Fed. Reg. 48208 (Aug. 8, 2011)	)	**EPA Docket No. EPA-HQ-OAR-2009-0491**

PETITION FOR RECONSIDERATION AND STAY

Pursuant to 5 U.S.C. § 705 and 42 U.S.C. § 7607(d)(7)(B), the State of Georgia petitions the Administrator of the United States Environmental Protection Agency ("Administrator" or "EPA") for reconsideration and a stay of the Final Rule captioned above (also referred to as the "Cross-State Air Pollution Rule" or "CSAPR") as it applies to the State of Georgia. The grounds for this Petition were impracticable to raise during or arose after the public comment period on the Proposed Rule (also referred to as the "Proposed Transport Rule" or "PTR")[1] and are of central relevance to the outcome of the Final Rule for Georgia. *See* 42 U.S.C. § 7607(d)(7)(B). Justice requires a stay of the Final Rule as it applies to Georgia due to the number and magnitude of known errors in the rule and the short timeframe required for compliance. For these reasons, Georgia urges the

[1] Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 75 Fed. Reg. 45210 (Aug. 2, 2010).

Administrator to immediately grant this Petition for reconsideration and stay the effectiveness of the Final Rule as it applies to Georgia during the period of the reconsideration. *See id.*; *see also* 5 U.S.C. § 705.

INTRODUCTION

The Proposed Rule, published in the Federal Register on August 2, 2010, provided that all comments must be received by October 1, 2010. 75 Fed. Reg. 45210. Due to a number of errors identified during its preliminary review of the Proposed Rule, the voluminous amount of technical support information for the Proposed Rule and other demands on its scarce resources required by a number of new and proposed EPA air quality regulations, on September 2, 2010, Georgia requested a sixty-day extension of the comment period to November 30, 2010, to conduct a thorough review. Document I.D. No. EPA-HQ-OAR-2009-0491-0326. Georgia's request was not granted. On October 1, 2010, Georgia submitted comments on the Proposed Rule that showed significant errors in the rule as it applied to Georgia. Document I.D. No. EPA-HQ-OAR-2009-0491-2647 (referred to herein as "Doc. No. 0491-2647"). Georgia was not able to comment extensively on the modeling performed in support of the Proposed Rule, because the air quality model performance documentation was sparse (only six pages long) and the station-by-station model and measurement files were not in the docket and were not provided in response to Georgia's request. *Id.* at p. 5.

On February 25, 2011, Georgia submitted comments on EPA's proposed rule disapproving Georgia's State Implementation Plan ("SIP") submission that addressed interstate transport of air pollution for the 2006 daily fine particulate matter ("PM2.5") air quality standard, *see* Approval and Promulgation of Air Quality Implementation Plans; Georgia; Disapproval of Interstate Transport Submission for the 2006 24-Hour PM2.5 Standard, 76 Fed. Reg. 4584 (Jan. 26, 2011). Document I.D. No. EPA-R04-OAR-2010-1012-0004 (referred to herein at "Doc. No. 1012-0004"). EPA finalized its disapproval of Georgia's Transport SIP for the 2006 Daily PM2.5 standard on July 20, 2011. *See* Approval and Promulgation of Air Quality Implementation Plans; Georgia; Disapproval of Interstate Transport Submission for the 2006 24-Hour PM2.5 Standard, 76 Fed. Reg. 43159 (July 20, 2011).

In the Final Rule issued on August 8, 2011, EPA promulgated federal implementation plans ("FIPs") for Georgia regarding interstate transport of air pollution for the 2006 Daily PM2.5, 1997 Annual PM2.5 and 1997 8-Hour Ozone air quality standards. 76 Fed. Reg. at 48219, n. 12.

REASONS TO RECONSIDER AND STAY THE FINAL RULE

I. EPA's Issuance of Federal Implementation Plans Exceeds Its Authority and Usurps the Roles of the States in Implementing the Clean Air Act.

In the Proposed Rule, EPA proposed to promulgate FIPs, but to allow states "substantial flexibility" to submit SIPs that "propose to use any remedy . . . that

actually eliminates the emissions" to replace the FIPs. 75 Fed. Reg. 45305, 45342. Georgia commented that the use of FIPs by EPA was unjustified and undermined the federal-state partnership that EPA has stated is so important to the successful implementation of the Clean Air Act. Doc. No. 0491-2647 at p. 1. Georgia (like most states) had submitted and EPA had approved its Cross-State Air Pollution Rule ("CAIR") SIPs that addressed interstate transport of air pollution for the 1997 Annual PM2.5 and 8-Hour Ozone standards. *Id.* Regarding EPA's proposed disapproval of Georgia's Transport SIP for the 2006 Daily PM2.5 standard, Georgia commented that EPA's guidance was issued after the due date for its SIP, but most importantly, that EPA had not determined the amount of reduction needed to satisfy the transport requirements. Doc. No. 1012-0004 at pp. 1-4. Furthermore, Georgia commented that EPA may not issue a FIP until it has complied with the requirements of Section 110(k)(5), 42 U.S.C. § 7410(k)(5), of the Clean Air Act. *Id.* at p. 4.

In the Final Rule, EPA promulgated 59 FIPs for 27 states. 76 Fed. Reg. at 48219, n. 12. Unlike the Proposed Rule, the Final Rule severely restricts the states' ability to replace the FIPs with SIPs. *See* 76 Fed. Reg. at 48354-56 (§ 40 C.F.R. 52.38(a), (b)), 48358-60 (§ 40 C.F.R. 52.39(c), (g), (h), (i)). EPA did issue a proposed notice of data availability ("NODA") and request for comments on the two approaches adopted in the Final Rule for allowing states to issue SIPs to

replace EPA's allocations. *See* Proposed Notice of data availability for the proposed Transport Rule and request for comment, 76 Fed. Reg. 1109 (Jan. 7, 2011). However, the use of this NODA with a nondescript title was an insufficient and misleading vehicle to bring such an important issue to the states' attention and made it impracticable for Georgia to submit comments during the thirty day comment period allowed.

Georgia submits that EPA's issuance of FIPs and its restriction of the states' ability to replace such FIPs with SIPs exceed its authority under the Clean Air Act. Moreover, EPA's actions usurp the states' "primary responsibility" for the control of air pollution and their authority under the Clean Air Act to submit SIPs containing a mix of controls they have selected to achieve emission reductions. 42 U.S.C. §§ 7401(a)(3), 7410(a)(2)(D).

II. EPA Erroneously Included Georgia in the Final Rule Based Solely on Modeled Projections that are Significantly Flawed.

A. EPA Should Have Considered Current Monitoring Data Instead of or at Least in Addition to Its Modeled Projections. Such Data Show that the Three Areas to which Georgia is Linked are in Attainment.

In the Final Rule, based on EPA's modeling, emissions of nitrogen oxides ("NOx") and sulfur dioxide ("SO2") from Georgia are projected to contribute significantly to nonattainment or interfere with maintenance of the Daily and Annual PM2.5 and 8-Hour Ozone standards in the following downwind areas:

(1) Jefferson (Birmingham), Alabama, for Daily and Annual PM2.5
•Nonattainment of the 1997 Annual PM2.5 Standard (receptor nos. 10730023 and 10732003)
•Nonattainment of the 2006 24-Hour PM2.5 Standard (receptor no. 10730023)
•Interference with Maintenance of the 2006 24-Hour PM2.5 Standard (receptor no. 10732003)

(2) East Baton Rouge, Louisiana, for 8-Hour Ozone
•Nonattainment of the 1997 8-Hour Ozone Standard (receptor no. 220330003)

(3) Brazoria and Harris (Houston), Texas, for 8-Hour Ozone
•Nonattainment of the 1997 8-Hour Ozone Standard (Brazoria receptor no. 480391004 and Harris receptor nos. 482010051 and 482010055)
•Interference with Maintenance of the 1997 8-Hour Ozone Standard (Harris receptor nos. 482010029 and 482011050)

Current monitoring data show that these areas are in attainment with the applicable standards.

1. *The Birmingham, Alabama Area is in Attainment with the Daily and Annual PM2.5 Standards.*

Georgia's comments on the Proposed Rule included the fact that EPA had recently made a final determination that the Birmingham area had attaining data for the Daily PM2.5 standard, *see* Approval and Promulgation of Air Quality Implementation Plans and Designations of Areas for Air Quality Planning Purposes; Alabama; Birmingham; Determination of Attaining Data for the 2006 24-Hour Fine Particulate Standard, Final Rule, 75 Fed. Reg. 57186 (Sept. 20, 2010). Doc. No. 0491-2647 at p. 5. After the close of the public comment period

on the Proposed Rule, EPA published a proposed determination finding that the Birmingham area had attaining data for the Annual PM2.5 standard. *See* Approval and Promulgation of Air Quality Implementation Plans and Designations of Areas for Air Quality Planning Purposes; Alabama; Birmingham; Determination of Attaining Data for the 1997 Annual Fine Particulate Matter Standards, Proposed Rule, 76 Fed. Reg. 20291 (Apr. 12, 2011). Thus, the Birmingham area is in attainment with both the Daily and Annual PM2.5 standards.

2. *The Baton Rouge, Louisiana, Area is in Attainment with the 8-Hour Ozone Standard.*

Georgia was not linked to the East Baton Rouge area in the Proposed Rule. Nor is the linkage of Georgia to East Baton Rouge in the Final Rule a "logical outgrowth" from the Proposed Rule that Georgia should have anticipated. As a consequence, Georgia had no opportunity to submit comments on this linkage until now.

EPA determined in 2010 that the Baton Rouge area had attained the 8-Hour Ozone standard. *See* Approval and Promulgation of Air Quality Implementation Plans; Louisiana; Baton Rouge 8-Hour Ozone Nonattainment Area; Determination of Attainment of the 8-Hour Ozone Standard, Final Rule, 75 Fed. Reg. 54778 (Sept. 9, 2010).

3. *The Houston, Texas, Area is in Attainment with the 8-Hour Ozone Standard.*

EPA has recently determined that the 2008-2010 design value for ozone for the Houston-Galveston-Brazoria, Texas, area was 0.084ppm. *See* Memorandum dated September 22, 2011, from Gina McCarthy, Assistant Administrator, EPA, to Air Division Directors, Regions 1-10, at Attachment, p. 1 of 2, attached hereto as Exhibit 1. Based on this information, the Houston area is in attainment with the 8-Hour Ozone standard.

Georgia agrees with the State of Texas that EPA should have considered actual current air quality conditions instead of or at least in addition to relying on what its modeling predicted. *See* Supplemental Petition for Reconsideration and Request for Full Stay, or in the Alternative, Partial Stay as to Texas on the Final Rule (referred to herein as "Texas Supp. PFR"), filed September 19, 2011, at pp. 5-7. All of the ozone and PM2.5 receptors linked to Georgia show modeled 2012 design values that are significantly higher than the most recent (2010) observed design values. For example, the 2012 Annual PM2.5 predicted design value in Birmingham (#10730023) is 16.15 $\mu g/m^3$, while the 2010 observed design value is 13.7$\mu g/m^3$, and the 2012 Daily PM2.5 predicted design value in Birmingham (#10730023) is 36.9 $\mu g/m^3$, while the 2010 observed design value is 29.0$\mu g/m^3$. Similarly, the 2012 8-hour ozone predicted design value in Houston

(#482010055) is 93.3 ppb, while the 2010 observed design value is 84.0 ppb, and the 2012 8-hour ozone predicted design value in East Baton Rouge (#220330003) is 85.6 ppb, while the 2010 observed design value is 78.0 ppb. This demonstrates that EPA's modeling is flawed and that the modeled projections of nonattainment for the three areas to which Georgia is linked are erroneous.

B. EPA's Use of CAMx to Model Design Values for Birmingham and Houston Was Inappropriate to Accurately Simulate the Impact of Local Emission Reductions.

The Final Rule used CAMx with 12 km x 12 km grids to model future design values. Both Birmingham (for PM2.5) and Houston (for ozone) are unique areas where fine grid modeling (4 km or less) is required in order to accurately simulate the impact of emission reductions by local sources. In Birmingham, local sources of primary PM2.5 emissions (i.e., PM2.5 that is emitted directly to the atmosphere) need to be addressed with fine grid modeling. In Houston, local sources of emissions of reactive volatile organic compounds ("VOC") that contribute to the formation of ozone need to be addressed with fine grid modeling.

Georgia concurs with the statements and reasoning set forth by Texas for a similar area, Granite City, Illinois, regarding why the use of CAMx yields inaccurate results for these unique areas. *See* Texas Supp. PFR, at p. 9. The use of a 12 km grid "effectively spreads the emissions reductions equally across the entire 12 km x 12 km grid cell," which greatly dilutes the modeled benefit of local

emission reductions and in effect destroys the relationship between the local sources and the local receptor. *Id.* The effect in the model is that the receptor only reflects a fraction of the true benefit of the local emission reductions, and the modeled response is correspondingly dampened. *Id.* This explains, at least in part, why the modeled 2012 design values for Birmingham and Houston predict nonattainment, while the actual monitoring data does not. Use of CAMx with a relatively large grid size is simply not the appropriate modeling tool to use in these cases and it was, therefore, unreasonable for EPA to use its CAMx results to "link" Georgia with the receptors in Birmingham and Houston.

C. EPA's Modeling Overstates Georgia's 2012 Projected SO2 Emissions. This Error Results in an Overestimation of Georgia's Downwind Impacts.

In its comments on the Proposed Rule, Georgia pointed out that the 2012 projected SO2 emissions from electric utility steam generating units ("EGUs") in Georgia used by EPA to model Georgia's significant contribution to nonattainment or interference with maintenance of the Daily and Annual PM2.5 standards in downwind areas were over twice what Georgia had projected (552,007 tons versus 232,952 tons) considering controls and emission limits required by state rules. Doc. No. 0491-2647 at p. 2. This error resulted in a significant overestimation of Georgia's downwind impacts. *Id.*

EPA failed to correct this error in its modeling for the Final Rule. EPA's 2012 base case modeling for the Final Rule uses projected SO2 emissions from EGUs in Georgia of 406,279 tons, which are over one and one-half times higher than Georgia's projection. Consequently, Georgia's projected impacts on downwind areas are still overestimated.

C. EPA's Modeling of Future SO2 and NOx Emissions from EGUs in Georgia Contains a Number of Errors, Resulting in Understatement of Georgia's Budgets.

EPA's 2012 and 2014 base case and remedy modeling for the Final Rule of future SO2 and NOx emissions from EGUs in Georgia contain a number of errors. As a result of these errors, the 2012 and 2014 base case SO2 emissions are too high and the 2012 and 2014 SO2 remedy emissions are too low. The following are examples of emissions from EGUs in Georgia that were modeled improperly:

(1) Plant McDonough Units 1 and 2 were assumed to be retired in the 2012 and 2014 base case and remedy modeling. While Georgia Power has the option to retire these units, if not retired, Georgia's rule, "Multipollutant Control for Electric Utility Steam Generating Units," ("Multipollutant Rule") requires the installation of flue gas desulfurization ("FGD" or commonly referred to as a "scrubber") controls on Unit 2 by December 31, 2011, and on Unit 1 by April 30, 2012. Ga. Comp. R. & Regs r. 391-3-1-.02(2)(sss)7(ii), 8(i). Therefore, emissions

from both of these units should have been included in the 2012 and 2014 base case and remedy modeling.

(2) Although not entirely clear, it appears that Plant Mitchell Unit 3 was assumed to have been converted to biomass as of January 1, 2012, in the 2012 and 2014 base case and remedy modeling. In the modeling for the Proposed Rule, Unit 3 was correctly included as being coal-fired.

(3) In the 2014 remedy modeling, Plant Branch Units 1, 2, and 4, Plant Yates Units 6 and 7 and Plant Scherer Unit 1 were assumed to have installed selective catalytic reduction ("SCR") and FGD controls as of January 1, 2014. Pursuant to Georgia's Multipollutant Rule in effect prior to September 13, 2011, these units were not required to have controls installed until June 1, 2014, December 31, 2014 or June 1, 2015, depending on the unit.[2]

(4) Although not entirely clear, it appears that in the 2012 base case modeling, Plants Branch (Units 1 through 4), Yates (Units 2 through 5) and Kraft (Units 1 through 3) were switched in Integrated Planning Model ("IPM") to coal containing approximately 3.5% sulfur, resulting in modeled SO2 emissions that are

[2] Effective September 13, 2011, these dates were revised in the Multipollutant Rule as follows: Plant Branch Unit 2, October 1, 2013, Unit 1, December 31, 2013, and Units 3 (originally December 31, 2013), October 1, 2015, and Unit 4, December 31, 2015; Plant Yates Units 6 and 7, no change; and Plant Scherer Unit 1, December 31, 2014. Ga. Comp. R. & Regs r. 391-3-1-.02(2)(sss)10(i), 11(iii), 12(iii), 13, 14(i), 15(i).

two to three times higher than their maximum SO2 emissions over the past eight years. It is Georgia's understanding that Georgia Power has already contracted to buy coal for 2012 that has a sulfur content significantly less than 3.5%. Consequently, it is inappropriate to model these units using 3.5% sulfur coal.

(5) Although not entirely clear, it appears that Plants Branch (Units 1 through 4), Yates (Units 2 through 5) and Kraft (Units 1 through 3) were switched in the IPM to coal containing approximately 0.6% sulfur in the 2012 remedy modeling. It is Georgia's understanding that Georgia Power has already contracted to buy coal for 2012 that has a sulfur content in significantly excess of 0.6% and that switching to 0.6% sulfur coal for 2012 would cost well over the $500 per ton cost threshold. Consequently, this switch should not be included in the 2012 remedy modeling.

(6) EPA's modeling assumes that Georgia's 2012 total fossil fuel generation in megawatts per hour ("MWh") will drop approximately 17% compared to the 2010 statewide total. Georgia is not aware of any expectation that such a reduction will occur.

Because EPA based state budgets on the total projected emissions from the 2012 and 2014 remedy modeling, inaccurate modeling of emissions from EGUs in Georgia resulted in state budgets that are too low. EPA's remedy modeling for Georgia takes credit for the installation of emission controls that were not yet

required and are not feasible to install in such a short time frame. Also, EPA's modeling fails to account for many units that will still be in operation in 2012 and 2014. If the emissions from EGUs in Georgia were properly modeled, Georgia's SO2 and NOx budgets would be much higher (e.g., the 2012 SO2 budget could be up to two times higher) than the 2012 and 2014 budgets in the Final Rule.

E. EPA's Modeling Fails to Determine the Reduction in Emissions Needed to Eliminate Georgia's Projected Significant Contribution to Nonattainment or Interference with Maintenance in Downwind Areas. Rather, It Requires an Over-Reduction in Georgia's Emissions.

Georgia agrees with the States of Nebraska and Texas that EPA's modeling for the Final Rule fails to consider the in-state contribution to a receptor along with the projected significant contributions to nonattainment or interference with maintenance by upwind states. *See* Petition for Reconsideration and Stay of the Final Rule filed by Nebraska (referred to herein at "Neb. PFR") on September 22, 2011, at pp. 22-25; Texas Supp. PFR at pp. 3-4. Nor, as Nebraska and Texas point out, does EPA's modeling differentiate between significant contributions to nonattainment and interference with maintenance. *Id.* at pp. 25-26 and p. 7, respectively. Consequently, EPA's modeling fails to determine the reduction in emissions necessary to eliminate a state's projected significant contributions to nonattainment or interference with maintenance in downwind areas. *Id.* at pp. 21-22 and pp. 8-9, respectively. Rather, EPA is requiring upwind states to eliminate emissions to a certain cost per ton threshold, which in the case of

Georgia clearly results in an over-reduction of emissions. *Id.* The following example illustrates this over-reduction. At the Birmingham receptor (#10730023), the 2014 remedy model run maximum design value is 14.21 $\mu g/m^3$ for Annual PM2.5 and 31.6 $\mu g/m^3$ for Daily PM2.5. Both of these values are well below the respective standards (15.0 $\mu g/m^3$ and 35 $\mu g/m^3$). Because the Birmingham receptor would have attained the standards with much fewer emission reductions by Georgia (and other upwind states linked to this receptor), EPA has exceeded its authority by requiring emission reductions below the significant contribution to nonattainment or interference with maintenance threshold.

F. EPA's Modeling Does Not Comply With EPA's Modeling Guidance for SIP Submissions. Furthermore, the Model's Performance Has Not Been Thoroughly Evaluated.

Georgia also agrees with Texas that EPA's modeling for the Final Rule fails to adhere to the modeling guidance that EPA requires states to comply with for their SIP submissions. *See* Texas Supp. PFR at p. 5, n. 10. In addition, Georgia agrees with Texas that EPA's modeling documentation is inadequate to evaluate how well the model performed. *Id.* at pp. 5-6.

EPA still has not made available all of the information required to perform a comprehensive model performance evaluation. Despite this, Georgia was able to evaluate the model's performance for ozone at four of the six receptors linked to Georgia. Specifically, the hourly mean normalized bias ("MNB") and mean

normalized gross error ("MNGE") over the entire ozone season was calculated using a threshold cutoff of 60 ppb (only model-observation pairs when the observation was over 60 ppb were included). The results are summarized below:

Site Receptor #	MNB_60ppb (%)	MNGE_60ppb (%)
220330003	-33.3	34.1
480391004	-18.6	21.8
482010055	-22.2	25.4
482011050	-13.9	17.4

Several statistical goals were identified for operational model performance in EPA's guidance for the 1-hour ozone attainment demonstration SIPs. *See* "Guideline for Regulatory Application of the Urban Airshed Model," U.S. EPA, 1991, EPA-450/4-91-013. Specifically, EPA guidance provides that the MNB should be in the range of ±5 to 15 percent and the MNGE in the range of 30 to 35 percent, and concludes that "[i]n general, performance results that fall within these ranges would be acceptable." *Id.* at p. 56, Section 5.2. With the advances made in air quality modeling over the past 20 years, it is very rare that ozone modeling does not meet these generous performance criteria. However, EPA's modeling for three of the four receptor sites that were examined does not meet these criteria. The large under-predictions in ozone concentrations makes the model less responsive to emission reductions; this may help explain why the modeled 2012 design values predict nonattainment, while the actual monitoring data do not.

Georgia's analysis shows that time for further evaluation of the performance of the model must be allowed. In contrast to the almost eight months allowed for review and analysis of the modeling performed for EPA's NOx SIP Call rule, the states have not been allowed sufficient time or information to analyze the modeling for the Final Rule.

III. EPA's Additional Technical Analyses Do Not Support the Inclusion of Annual NOx Budgets for Georgia in the Final Rule.

In its comments on the Proposed Rule, Georgia provided an analysis that clearly demonstrated that the impacts of NOx emissions from Georgia do not contribute significantly to nonattainment or interfere with maintenance of the Annual and Daily PM2.5 standards in the downwind areas linked to Georgia. Doc. No. 0491-2647 at pp. 3-5. In fact, Georgia's analysis showed the impacts are insignificant and annual NOx budgets for Georgia are not justified. *Id.*

In response to Georgia's comments and other similar comments, EPA performed two additional analyses that EPA states support the inclusion of annual NOx budgets in the Final Rule. *See* Technical Analyses in Support of the Need for Annual NOx Controls in the Final Transport Rule, Document I.D. No. EPA-HQ-OAR-2009-0491-4441 (referred to herein as "Doc. No. 0491-4441"), posted on July 11, 2011. Because these Analyses were performed after the close of the comment period on the Proposed Rule, Georgia had no opportunity to comment on them.

A. EPA's Nitrate Replacement Analysis is Not Applicable to Georgia.

EPA's first analysis was for "nitrate replacement." *See* Doc. No. 0491-4441 at pp. 1-3. EPA's modeling demonstration shows that reductions in sulfate concentrations (due to SO2 emission reductions) may lead to increases in nitrate concentrations due to increased "nitrate replacement." *Id.* at p. 1. To assess the magnitude of nitrate replacement that might occur due to the SO2 emissions reductions in the Final Rule, EPA conducted a sensitivity test using air quality modeling where SO2 emission reductions were made, but NOx emissions were kept at "base case" levels. *Id.* For this "SO2 emissions reduction" scenario (2014_sox), EPA used EGU NOx emissions from the 2014 base case (2014cs) and SO2 emissions from the 2014 AQAT calibration scenario (2014cs_noxsox). *Id.* EPA took the difference between the 2014 base case (2014cs) and the 2014 "SO2 emissions reduction" scenario (2014_sox) to quantify the "nitrate replacement." *Id.* EPA concluded that "reductions in NOx emissions, when coupled with SO2 reductions, *may* help mitigate nitrate replacement by reducing the formation of nitric acid that would otherwise be available to form particulate nitrate." *Id.* (Emphasis added.) However, EPA's analysis does not demonstrate that reduction of NOx emissions from upwind states *will* mitigate nitrate replacement. To accurately quantify the benefits of reductions in NOx emissions, EPA should have taken the difference in nitrate concentrations between the 2014 AQAT calibration

scenario (2014cs_noxsox) and the 2014 "SO2 emissions reduction" scenario (2014_sox). This difference in nitrate concentrations would show exactly how much the Final Rule would mitigate nitrate replacement and would be much smaller than the difference in nitrate concentrations presented in EPA's analysis.

In addition, EPA only presents modeling results for the 1st and 4th quarters in its analysis and states that "there was little or no nitrate replacement in the 2nd and 3rd quarters." *Id.* at p. 1. Because the Annual and Daily PM2.5 standards are based on information from the entire year, EPA should have presented the results for those specific averaging periods. EPA admits that "[t]he impact of nitrate replacement on annual average PM2.5 concentrations is smaller than the numbers presented . . ., since these quarterly values are averaged across all four quarters to get the final annual average design value," but never presents the annual results. *Id.* at p. 2. EPA states that it's modeling results "also suggest[] that 24-hour, or 'daily', PM2.5 concentrations in the winter seasons may also be sensitive to nitrate replacement." *Id.* However, very few (if any) high 24-hour PM2.5 concentrations ever occur during the winter in the Southeastern United States. Therefore, EPA's analysis is inapplicable to Georgia.

Finally, Tables 1 and 2 of EPA's analysis include a summary of the nitrate increases due to nitrate replacement for the annual average PM2.5 design values during the 1st and 4th quarters for all receptor sites (723 sites) and at 2012 modeled

nonattainment and maintenance receptor sites (15 sites) and the daily PM2.5 design values at all receptor sites (718 sites) and at 2012 modeled nonattainment and maintenance receptor sites (41 sites). *Id.* at pp. 2-3. Because nitrate replacement is much more pronounced in the Midwest and the Northeastern United States as compared to the Southeastern United States, it is inappropriate to summarize all these sites together. If the sites in the Southeastern United States were analyzed separately from the other sites, the impacts would be much smaller. In fact, the most appropriate way of presenting the results would be on a site-by-site basis. Because Georgia is only linked to two receptor sites in Jefferson (Birmingham), Alabama, for the PM2.5 standards, the results for those receptor sites are the *only* results that have any significance to Georgia.

B. EPA's Georgia NOx Zero-Out Run Produced Unrealistic Results.

EPA's second analysis was an attempt to quantify the impact of NOx emissions from Georgia on downwind PM2.5 concentrations. *See* Doc. No. 0491-4441 at pp. 4-7. For the Final Rule, EPA used CAMx source apportionment (NOx PSAT and SO2 PSAT) modeling to quantify the contributions from NOx and SO2 emissions in upwind states to PM2.5 concentrations at receptors predicted to be nonattainment in the 2012 base case for the Annual and/or Daily PM2.5 standards. *Id.* at p. 4. EPA also conducted zero-out NOx modeling for Georgia. *Id.* EPA's results show that the estimated nitrate contribution from the source

apportionment and the zero-out modeling are of the same order of magnitude. *Id.* at pp. 5-6. However, the contribution of NOx to nitrate plus sulfate in the zero-out run is much higher than the contribution to nitrate alone. *Id.* Based on the results reported in Tables 1, 2 and 3, the impacts in the NOx PSAT are anywhere from 3 to 20 times smaller than those in the NOx zero-out run. *Id.* at pp. 5-7. At least in this technical analysis, EPA seems to consider the Georgia NOx zero-out run results to be more reliable than NOx PSAT results. However, all of the significant contribution calculations in Final Rule were based on the sum of SO2 PSAT plus NOx PSAT. If the NOx zero-out results are more reliable than NOx PSAT results and the NOx PSAT results are biased low by a factor of 3 to 20 times, it would result in all of the CSAPR significant contributions being biased low. If this is true, many states may not have been linked to downwind nonattainment and maintenance areas when they should have been. As a result, many states may have been left out of the Final Rule simply because EPA chose to use NOx PSAT instead of using NOx zero-out on a state-by-state basis.

Georgia believes the results from the NOx PSAT are much more appropriate to this analysis than the results from the Georgia NOx zero-out run. The impacts of removing all anthropogenic NOx in the Georgia NOx zero-out run lead to totally unrealistic atmospheric chemistry. With no anthropogenic NOx, ozone (and other oxidants such as hydroxyl radical) is decreased to background conditions. When

this happens, photochemical reactions and atmospheric oxidation chemistry (conversion of SO2 to sulfate) are severely impacted to a point that the model produces unrealistic results. The benefit of using the NOx PSAT is that the photochemical reactions and atmospheric oxidation chemistry are not disturbed and the results are much more realistic. If a Georgia NOx reduction run were to be performed, it should not be a NOx zero-out run. Instead, a more appropriate NOx sensitivity run might include 30% state-wide reductions, 50% state-wide reductions, or 100% state-wide reductions of only point source NOx (leaving mobile, area, and fire NOx unchanged). Ultimately, the most appropriate model run would reduce the Georgia NOx emissions by a percentage that is based on the amount of NOx reductions that will be required by the Final Rule annual NOx budgets for Georgia. An analysis of those results would lead to impacts that are several orders of magnitude smaller than the impacts EPA obtained when it performed the Georgia NOx zero-out run.

In addition, EPA's 2012 base case modeling used SO2 emissions that are approximately two times too high for Georgia. Unrealistically high SO2 emissions lead to an over prediction of sulfate concentrations and an over prediction of sulfate reductions due to NOx reductions. Using appropriate SO2 emissions would lead to much smaller impacts on sulfate concentrations.

Finally, there are many instances where reductions in NOx emissions in the Southeastern United States can lead to increases in PM2.5 concentrations. Georgia has made this point over the past three years, which is described in detail in the Atlanta Annual PM2.5 SIP and was presented at the national Community Modeling and Analysis System ("CMAS") modeling conference in 2010. EPA has indicated that it agrees with Georgia. *See* Memorandum dated July 23, 2007, by Tyler Fox, found at Document I.D. No. EPA-HQ-OAR-2003-0062-0261, pp. 12-13 ("We observe NOx disbenefits in areas where NOx to VOC ratios are low (i.e., oxidant-limited) such as the urban areas within eastern US (e.g., NE corridor, Atlanta, and urban core of Chicago). This finding results from reductions in NOx that can lead to increases in ozone and oxidant availability which increase sulfate PM and resulting PM2.5 concentrations.").

For these reasons, EPA's assertions that the NOx PSAT "is an appropriate approach for source apportionment," but that the results for Georgia are not valid and should be replaced with an unrealistic statewide NOx zero-out model run are incorrect.

C. Georgia's Multipollutant Rule Requires Annual Operation of Existing and New NOx Control Equipment.

EPA also states that the inclusion of annual NOx budgets in the Final Rule "is appropriate to establish a cap on these states' annual NOx emissions, in part to ensure the continued annual operation of existing control equipment that would

prevent substantial increases in NOx emissions. EPA believes that without these reductions, increased 'nitrate replacement' could occur . . .. [***] If EPA were to allow annual NOx emissions to increase for those states, there would be potentially harmful effects on visibility, nitrogen deposition, and other aspects of human and environmental health." 76 Fed. Reg. at 48223. However, this is not true for Georgia. Georgia's Multipollutant Rule requires the annual operation of existing and new NOx control equipment; therefore "substantial increases in NOx emissions" will not occur. *See* Ga. Comp. R. & Regs r. 391-3-1-.02(2)(sss).

In sum, Georgia's analysis in its comments on the Proposed Rule and the comments herein on EPA's Analyses show that the inclusion of annual NOx budgets for Georgia in the Final Rule is unwarranted.

IV. Georgia Did Not Have Notice and an Opportunity to Comment on Material Changes Made in the Final Rule.

The following represent a few of the material changes made in the Final Rule on which Georgia should have been given an opportunity to comment.

A. All of Georgia's Budgets, Except for the 2014 SO2 Budget, Were Reduced Significantly in the Final Rule.

A comparison of Georgia's budgets in the Proposed Rule to the Final Rule shows that only one of Georgia's budgets was not reduced significantly:

	2012 Budgets			Comparisons			
	CSAPR Budget	PTR Budget	CAIR 2010 Budget	CSAPR less PTR	Percent Change	CSAPR less CAIR	Percent Change
Annual SO2	158,527	233,260	213,057	-74,733	-32.04%	-54,530	-25.59%
Annual NOx	62,010	73,801	66,321	-11,791	-15.98%	-4,311	-6.50%
Ozone NOx	27,944	32,144	N/A	-4,200	-13.07%	N/A	N/A

Not only was the 2012 annual SO2 budget reduced by 32% in the Final Rule, this budget is over 25% lower than the 2010 budget established by CAIR, which has already been implemented. When compared to 2010 actual emissions, the 2012 annual SO2 budget in the Final Rule requires a reduction of 28% to comply.

	2014 Budgets			Comparisons			
	CSAPR Budget	PTR Budget	CAIR 2015 Budget	CSAPR less PTR	Percent Change	CSAPR less CAIR	Percent Change
Annual SO2	95,231	85,717	149,140	9,514	11.10%	-53,909	-36.15%
Annual NOx	40,540	73,801	55,268	-33,261	-45.07%	-14,728	-26.65%
Ozone NOx	18,279	32,144	N/A	-13,865	-43.13%	N/A	N/A

Although Georgia's 2014 annual SO2 budget was increased 11% in the Final Rule, it is 36% less than the 2015 SO2 budget established by CAIR, and when compared

to 2010 actual emissions, requires a 56.5% decrease to comply. Similarly, Georgia's 2014 annual and ozone season NOx budgets in the Final Rule were reduced 45% and 43%, respectively, from the Proposed Rule. The 2014 ozone season NOx budget is 27% less than the 2015 budget established by CAIR (Georgia was not in CAIR for annual NOx). When compared with 2010 actual emissions, the 2014 annual and ozone season NOx budgets require reductions of 33% and 32%, respectively, to comply.

In addition, while the number of areas linked to Georgia decreased from 14 areas (33 receptor sites) in the Proposed Rule to 3 areas (7 receptor sites) in the Final Rule, inexplicably, all of Georgia's budgets (except for the 2014 annual SO2 budget) decreased significantly.

B. Georgia Was Switched from Group 1 to Group 2 in the Final Rule, Thereby Substantially Reducing the Number of Potential Allowance Trading States.

In the Proposed Rule, Georgia was in Group 1 for SO2 cost-effective reductions and allowance trading. Georgia was moved to Group 2 in the Final Rule. This switch substantially reduces the number of states with which Georgia may trade allowances from 14 in the Proposed Rule to 6 in the Final Rule.

Because Georgia's budgets were reduced so dramatically and Georgia was switched from Group 1 to Group 2 in the Final Rule, Georgia should have been provided notice and an opportunity to comment on those changes.

V. EPA's Treatment of Georgia's Multipollutant Rule Penalizes EGUs in Georgia by Requiring an Over-Reduction of Emissions.

In the Final Rule, EPA explains that the primary reason for the significant reductions in Georgia's 2014 SO2 and NOx budgets was its treatment of Georgia's Multipollutant Rule:

> EPA modeling reflects emission reduction requirements under provisions of a Georgia state rule that go into effect after 2012 but before 2014. These requirements involve the installation and operation of specific advanced pollution controls. These source-specific requirements under a legal authority unrelated to the Transport Rule result in sharp reductions in Georgia's baseline emission projections between 2012 and 2014. Even though the cost threshold for NO[X] and for SO[2] in Georgia is $ 500/ton in both 2012 and 2014, EPA believes it is important to establish separate NO[X] and SO[2] budgets that accurately reflect the emissions remaining in Georgia (and other states experiencing similar reductions) after the elimination of emissions that can be reduced up to the Transport Rule remedy's cost thresholds (*e.g.*, $ 500/ton) (see Table VI.D.3). It illustrates a notable decrease between the 2012 and 2014 state budgets for NO[X] and SO[2] in Georgia that is largely driven by state rule requirements. If EPA did not adjust 2014 budgets to account for other emission reductions that would occur even in the baseline, other sources within the state would be allowed to increase their emissions under the unadjusted Transport Rule budgets to offset the emission reductions planned under other requirements such as state rules.
>
> 76 Fed. Reg. at 48261.

In essence, EPA's treatment of Georgia's Multipollutant Rule penalizes Georgia for having a state rule requiring the installation of controls on 22 EGUs. First of all, as Georgia pointed out in its comments on the Proposed Rule, EPA erroneously included controls on six units in 2014, instead of 2015. Doc. I.D. No.

0491-2647 at p. 2. Secondly, EPA took into account the emission reductions achieved by the installation of controls required by the Multipollutant Rule, but treated the cost to install these controls as "sunk cost," giving $0 credit against the Final Rule's remedy cost thresholds of $500 per ton. EPA then set Georgia's 2012 and 2014 budgets "after the elimination of emissions that can be reduced up to the Transport Rule remedy's cost thresholds" of $500 per ton. Consequently, EPA's treatment of Georgia's Multipollutant Rule results in Georgia's budgets being set far too low and requires EGUs in Georgia to "over-reduce" emissions. Such an egregious error cannot be allowed to stand.

Based on modeling that has not been thoroughly evaluated and contains known errors, including overstated SO2 emissions and the over-reduction caused by EPA's treatment of Georgia's Multipollutant Rule, the Final Rule requires EGUs in Georgia to drastically reduce SO2 emissions for the Birmingham, Alabama, area that is *projected* to be in nonattainment or have problems maintaining the PM2.5 standards, but which is currently in attainment based on *monitored* air quality data. In fact, Georgia's highest contributions to the Birmingham area are projected to be around 3% of the PM2.5 standards ($0.46\mu g/m^3$ for the annual standard and $1.10\ \mu g/m^3$ for the daily standard). *See* 76 Fed. Reg. at 48240, Table V.D-1, and 48242, Table V.D-4. However, EGUs in Georgia are being required to reduce SO2 emissions over 27% in 2012 and over

56% in 2014 from 2010 actual SO2 emissions.[3] Similarly, the Final Rule requires EGUs in Georgia to significantly reduce NOx emissions for the Baton Rouge, Louisiana, and Houston, Texas, areas that are *projected* to be in nonattainment or have problems maintaining the ozone standard, but which are currently in attainment based on *monitored* air quality data. Based on Georgia's experience, EGUs cannot make these reductions within the time allowed, because the installation of controls takes approximately 48 months per unit. Doc. I.D. No. 0491-2647 at p. 2.

CONCLUSION AND RELIEF REQUESTED

The Final Rule is materially different than the Proposed Rule. These changes are not "logical outgrowths" of the Proposed Rule that Georgia should have anticipated. Moreover, the Final Rule is based on revised modeling that yielded markedly different results and contains known errors. For these reasons, Georgia requests the Administrator of EPA to reconsider the Final Rule and stay the effectiveness of that rule as it applies to Georgia during reconsideration.

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[3] On the other hand, the 2012 SO2 budgets for other states that are projected to significantly contribute to nonattainment of the Annual PM2.5 standard in Georgia are being increased over their actual 2010 emissions. Specifically, the 2012 SO2 budgets for Alabama, Illinois, North Carolina, Tennessee and West Virginia are higher than their 2010 actual emissions. Furthermore, not only is the 2012 SO2 budget for Alabama, our closest neighboring state, higher than its 2010 actual emissions, its 2014 budget is too.

Respectfully submitted this 5TH day of October, 2011.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C 20460

September 22, 2011

OFFICE OF
AIR AND RADIATION

MEMORANDUM

TO: Air Division Directors, Regions 1 – 10

FROM: Gina McCarthy
Assistant Administrator

SUBJECT: Implementation of the Ozone National Ambient Air Quality Standard

The purpose of this memorandum is to clarify for state and local air agencies the status of the ozone National Ambient Air Quality Standard (NAAQS) and to outline implementation steps moving forward. With the recent decision on the reconsideration of the ozone NAAQS, the current ozone NAAQS is 0.075 ppm. This standard will provide additional public health and welfare protection until the next regular review is completed, and EPA fully intends to implement this current standard as required under the Clean Air Act.[1]

As I will describe below in more detail, EPA is moving ahead with certain required actions to implement the 2008 standard, but will do so mindful of the President's and Administrator's direction that in these challenging economic times EPA should reduce uncertainty and minimize the regulatory burdens on state and local governments. EPA is also continuing to implement and develop federal rules and other programmatic actions to reduce emissions that contribute to smog and improve air quality and public health across the nation.

Area Designations
EPA is proceeding with initial area designations under the 2008 standard, starting with the recommendations states made in 2009 and updating them with the most current, certified air quality data. We expect to issue our proposed changes to the states' recommendations (the "120-day letters") later this fall. We will quickly initiate and complete a rulemaking to establish nonattainment area classification thresholds so that we can finalize the designations. While we intend to take into consideration all comments we receive on the proposed rule, we note that we used a "percent above the standard" approach for classification under the 1997 ozone standard and believe that remains a reasonable approach.

[1] Note that the 2008 standard is under legal challenge. EPA has recently indicated to the Court that it does not object to the establishment of a briefing schedule in that litigation and has provided a schedule for the Court to consider.

Exhibit 1

Based on our initial review of ozone air quality data from 2008-2010, 52 areas monitor air quality that exceeds the 0.075 ppm standard. This preliminary review shows considerably fewer areas not meeting the 2008 standard than the number identified in 2009 when states made their recommendations. Using the "percent above the standard" classification approach, 43 of the 52 areas would fall into the Marginal category. As you know, many of the mandatory measures under the Clean Air Act are not required for Marginal areas since they are expected to achieve attainment within 3 years. In addition, EPA's modeling indicates that approximately half of the 52 areas would attain the 0.075 ppm standard by 2015 (the expected attainment deadline for Marginal areas) as a result of the emission-reducing rules already in place.

Because we have states' 2009 recommendations and quality assured ozone data for 2008-2010, there is nothing that state or local agencies need to do until we issue the 120-day letters later this year, though of course, states are welcome to contact us to discuss specific issues at any time. We expect to finalize initial area designations for the 2008 ozone NAAQS by mid-2012. However, we note that EPA currently faces litigation with respect to the timing of the designations and expects that the resolution of the litigation may well affect the precise timing of the schedule for designations.

Planning Requirements and Other Required Submissions
We will begin an expedited rulemaking to outline the implementation requirements for the 2008 standard in the very near future. The rule will be as straightforward and simple as we can make it. As you know, the Clean Air Act provides several years for states to develop their State Implementation Plans (SIPs) and to implement any mandatory measures. However, several deadlines for some state submissions have already passed, including the infrastructure SIPs and interstate transport SIPs. There are few requirements for Marginal areas beyond those SIPs.

EPA does not intend to penalize states for the passage of time, but we may also face litigation on these issues. In negotiating schedules for expeditious completion of required elements, we will seek to minimize any administrative burden on states associated with these requirements. To the extent that states are already engaged or would like to get started with clean air programs to address the standard, we will provide assistance with guidance and model language on rules or other programs, such as energy efficiency.

Federal Actions to Reduce Emissions
EPA will continue to move forward with implementation and development of federal rules that reduce emissions of pollutants that contribute to smog and threaten public health. These actions include recently promulgated rules that lower NOx and VOC emissions such as the Cross-State Air Pollution Rule (CSAPR), the Portland Cement Rule, and Light and Heavy Duty Vehicle standards. They also include rules under development such as the Maximum Achievable Control Technology (MACT) standards for Boilers, the Mercury and Air Toxics Standards (MATS) for power plants, the New Source Performance Standards (NSPS) for Commercial Incinerators/Solid Waste Incinerators (CISWI) and the Oil/Gas sector, and the Tier 3 vehicle and fuel standards. These federal actions will ensure steady forward progress to clean up the nation's air and protect the health of American families, while minimizing and in many cases eliminating the need for states to use their scarce resources on local actions.

The Next Ozone Review
The next regular review of the health and welfare science is well underway. EPA will propose any appropriate revisions in the fall of 2013 and finalize any revisions to the standard in 2014. Attached to this memorandum is a schedule that lays out the upcoming steps in that review.

I hope this memorandum has answered some of the most immediate questions. Please distribute this memo to state and local air agencies in your Region. We will be providing opportunities for further discussion and questions with state and local officials in the coming weeks.

Attachment

September 22, 2011

Ozone NAAQS Review Schedule

Stage of review	Major milestones	Schedule
Integrated Science Assessment (ISA)	1st Draft ISA	Mar 2011
	CASAC and public review 1st Draft ISA	May 19-20, 2011
	2nd Draft ISA	Sept 2011
	CASAC and public review of 2nd Draft ISA	Dec 15-16, 2011
	Final ISA	Feb/Mar 2012
Risk/Exposure Assessments (REAs)	Scope and Methods Plans	Apr 2011
	CASAC consultation and public review of Scope and Methods Plans	May 19-20, 2011
	1st Draft REAs	Feb/Mar 2012
	CASAC and public review 1st Draft REAs	May 2012
	2nd Draft REAs	Nov 2012
	CASAC and public review 2nd Draft REAs	Jan/Feb 2013
	Final REAs	Apr 2013
Policy Assessment (PA) and Rulemaking	1st Draft PA	Apr 2012
	CASAC and public review 1st Draft PA	May 2012
	2nd Draft PA	Dec 2012
	CASAC and public review 2nd Draft PA	Jan/Feb 2013
	Final PA	May 2013
	Proposed Rule	Oct 2013
	Final Rule	July 2014

EPA has done a preliminary review of ozone air quality data from 2008-2010. Below is EPA's initial estimate of areas exceeding the 2008 ozone standard of 0.075 ppm, based on those data. The actual nonattainment areas will be determined through the designations process, which will include extensive input and review by the states and an opportunity for public comment.

Area*	Design Value 2008-2010 (ppm)	Potential Classification under 0.075 ppm ozone standard**	Current Designation Status for 1997 ozone NAAQS
Los Angeles South Coast Air Basin, CA	0.112	Serious	Nonattainment
San Joaquin Valley, CA	0.104	Serious	Nonattainment
Sacramento Metro, CA	0.102	Serious	Nonattainment
Los Angeles-San Bernardino Cos (W Mojave), CA	0.099	Moderate	Nonattainment
Riverside Co, (Coachella Valley), CA	0.095	Moderate	Nonattainment
Baltimore, MD	0.089	Moderate	Nonattainment
San Diego, CA	0.088	Moderate	Nonattainment
Dallas-Fort Worth, TX	0.086	Moderate	Nonattainment
Ventura Co, CA	0.086	Moderate	Nonattainment
San Luis Obispo-Paso Robles, CA	0.084	Marginal	Attainment
Houston-Galveston-Brazoria, TX	0.084	Marginal	Nonattainment
Nevada Co. (Western Part), CA	0.084	Marginal	Nonattainment
New York-N. New Jersey-Long Island,NY-NJ-CT	0.084	Marginal	Nonattainment
Amador and Calaveras Cos (Central Mtn), CA	0.083	Marginal	Nonattainment
Kern Co (Eastern Kern), CA	0.083	Marginal	Nonattainment
Mariposa and Tuolumne Cos (Southern Mtn), CA	0.083	Marginal	Nonattainment
Philadelphia-Wilmington-Atl. City, PA-NJ-MD-DE	0.083	Marginal	Nonattainment
Charlotte-Gastonia-Rock Hill, NC-SC	0.082	Marginal	Nonattainment
Pittsburgh-Beaver Valley, PA	0.081	Marginal	Nonattainment
Washington, DC-MD-VA	0.081	Marginal	Nonattainment
Red Bluff, CA	0.080	Marginal	Attainment
San Francisco Bay Area, CA	0.080	Marginal	Nonattainment
Atlanta, GA	0.080	Marginal	Nonattainment
Chico, CA	0.079	Marginal	Nonattainment
Cincinnati-Hamilton, OH-KY-IN	0.079	Marginal	Maintenance
Reading, PA	0.079	Marginal	Maintenance
Greater Connecticut, CT	0.079	Marginal	Nonattainment
Boston-Lawrence-Worcester (E. Mass), MA	0.078	Marginal	Nonattainment
Imperial Co, CA	0.078	Marginal	Nonattainment
Sublette County, WY - COUNTY	0.078	Marginal	Attainment
Baton Rouge, LA	0.078	Marginal	Nonattainment
Denver-Boulder-Greeley-Ft Collins-Love., CO	0.078	Marginal	Nonattainment
Sheboygan, WI	0.078	Marginal	Nonattainment
Columbus, OH	0.077	Marginal	Maintenance
Knoxville, TN	0.077	Marginal	Maintenance
Lancaster, PA	0.077	Marginal	Maintenance
Phoenix-Mesa, AZ	0.077	Marginal	Nonattainment
Springfield (Western MA), MA	0.077	Marginal	Nonattainment

Area*	Design Value 2008-2010 (ppm)	Potential Classification under 0.075 ppm ozone standard**	Current Designation Status for 1997 ozone NAAQS
Cleveland-Akron-Lorain, OH	0.077	Marginal	Maintenance
Jamestown, NY	0.077	Marginal	Nonattainment
St. Louis, MO-IL	0.077	Marginal	Nonattainment
Allentown-Bethlehem-Easton, PA	0.076	Marginal	Maintenance
Greensboro--Winston-Salem--High Point, NC	0.076	Marginal	Attainment
Greenville-Spartanburg-Anderson, SC	0.076	Marginal	Attainment
Gulfport-Biloxi-Pascagoula, MS	0.076	Marginal	Attainment
Las Vegas, NV	0.076	Marginal	Nonattainment
Memphis, TN-AR	0.076	Marginal	Maintenance
Nashville-Davidson-Murfreesboro-Columbia, TN	0.076	Marginal	Attainment
Richmond-Petersburg, VA	0.076	Marginal	Maintenance
Santa Barbara-Santa Maria-Goleta, CA	0.076	Marginal	Attainment
Sutter Co (Sutter Buttes), CA	0.076	Marginal	Nonattainment
Providence (All RI), RI	0.076	Marginal	Nonattainment

*Generally, the area descriptions in this table refer to metropolitan areas. Precise area boundaries will be established through the designations process.

**EPA will establish classification thresholds through notice-and-comment rulemaking. Listed in this table are the classifications that would result from the "percent-above-standard" approach EPA used for the 1997 NAAQS. These thresholds are: Marginal 0.076 up to 0.086 ppm; Moderate 0.086 up to 0.100 ppm; Serious 0.100 up to 0.113 ppm; Severe 0.113 up to 0.175; and Extreme 0.175 ppm and up.