

# **Appendix A**

## **Policy Letters and Memoranda**



STATE OF NORTH CAROLINA  
OFFICE OF THE GOVERNOR  
RALEIGH 27603-8001

JAMES G. MARTIN  
GOVERNOR

March 15, 1991

Mr. Greer C. Tidwell  
Regional Administrator  
U. S. Environmental Protection Agency  
Region IV  
345 Courtland Street, N. E.  
Atlanta, Georgia 30365

Dear Mr. Tidwell:

In response to your letter of February 5, 1991, inviting North Carolina to provide designations of ozone and carbon monoxide nonattainment areas, the State of North Carolina chooses to make the following designations.

North Carolina proposes carbon monoxide nonattainment areas as follows:

- 1) Within the Greensboro/Winston-Salem/High Point Metropolitan Statistical Area (MSA) we propose Forsyth County. The level of nonattainment is classified as moderate.
- 2) Within the Raleigh/Durham MSA we propose Wake and Durham counties. The level of nonattainment is classified as moderate.
- 3) Mecklenburg County continues to be classified as a nonattainment area by previous designation. We expect an attainment demonstration to be submitted soon after EPA issues new guidance.
- 4) All other areas of the State are considered to be in attainment of the standard for carbon monoxide.

Mr. Greer C. Tidwell  
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North Carolina proposes ozone nonattainment areas as follows:

- 1) We propose the following counties in the North Carolina portion of the Charlotte/Gastonia/Rock Hill MSA with a classification of moderate: Gaston and Mecklenburg.
- 2) We propose the following counties in the Greensboro/Winston-Salem/High Point MSA with a classification of moderate: Davidson, Forsyth and Guilford.
- 3) We propose the following counties in the Raleigh/Durham MSA with a classification of moderate: Durham and Wake.
- 4) All other areas of the State are considered to be in attainment of the standard for ozone.

In addition to these nonattainment counties, North Carolina proposes to expand its inspection and maintenance program for vehicles into four more counties - Cabarrus, Union, Randolph, and Orange. This will further reduce emissions which contribute to ozone formation because of the large number of commuters from these counties to the seven proposed for nonattainment designation.

Attached is a report from the Division of Environmental Management, Air Quality Section, which explains how these areas were evaluated.

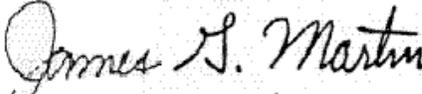
We have submitted, or have in the hearing process and expect to submit before May 15, 1991, all corrections of RACT deficiencies noted in the May 26, 1988, and November 8, 1989, letters.

We have implemented the December 27, 1988, inspection/maintenance corrective action plan, including use of tampered undercover vehicles and the imminent use of BAR-90 analyzers. When new EPA policy requirements for inspection/maintenance programs are issued, we expect to adjust our program as appropriate.

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March 15, 1991

The implementation costs of the Clean Air Act Amendments will be substantial, but we are moving to secure the necessary funding and staff. Thank you for the opportunity to make these designations as an early step in meeting the Clean Air Act requirements.

Sincerely,

  
James G. Martin

JGM/WWCjr.

Attachments

cc: William W. Cobey, Jr.  
George T. Everett  
Lee A. Daniel



STATE OF NORTH CAROLINA  
OFFICE OF THE GOVERNOR  
RALEIGH 27803-8001

JAMES G. MARTIN  
GOVERNOR

May 30, 1991

Mr. Greer C. Tidwell  
Regional Administrator  
U. S. Environmental Protection Agency  
345 Courtland Street, N. E.  
Atlanta, Georgia 30365

Dear Mr. Tidwell:

I have received your letter of May 14, 1991, indicating EPA's proposed modification of my listing of ozone nonattainment areas in North Carolina, and have reviewed it carefully with appropriate staff of the Division of Environmental Management. The three counties that EPA proposed to add to our ozone nonattainment area are Lincoln County in the Charlotte area; Davie County in the Greensboro/Winston-Salem area; and Granville County in the Raleigh/Durham area. The justification offered by EPA for adding these additional counties refers to a requirement under the Clean Air Act (Section 107(d)(1)(A)(i)). This provision requires an area to be designated nonattainment if it does not meet the ambient standard for ozone. Your letter indicates that EPA interprets this provision to require that any area in which a monitor shows a violation must be designated nonattainment. That is superficial and legalistic nonsense, and will only penalize innocent areas whose only fault is to be situated adjacent to the real sources of air pollution.

Since your letter does not set out in any detail what constitutes EPA's interpretation of Section 107(d)(1)(A)(i) or how it was arrived at, I am unable at this time to respond directly to the legal sufficiency of your interpretation. It does not appear, however, from a reading of the Act itself and its legislative history, that such an interpretation is either mandated or even consistent with the intent or goals of Title I of the Clean Air Act as amended. In particular I would like to know how EPA determines nonattainment for areas where monitoring data was only collected during one year of the base period. This was the case in both Lincoln and Davie Counties.

Mr. Greer C. Tidwell  
May 30, 1991  
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The original listing that I provided would appear to meet the letter and intent of the Clean Air Act. Therefore, I strongly oppose including these additional three counties in our nonattainment designation. My proposal does designate as nonattainment three areas which have not met the ambient air standard for ozone. The Act does not specify that every county where a monitor is located must be included. Both good science and good common sense would indicate that pollution should be controlled in counties where it is generated, not in neighboring counties where it is detected. My proposal evaluated the counties that contributed to the nonattainment and included an expanded inspection/maintenance program to insure the effectiveness of the strategy.

Accordingly, the monitors were not placed to be representative of counties. The Lincoln County monitoring site is only two miles from the Gaston County line and closer to Charlotte than Lincolnton. The Granville monitor site is in Butner near the Durham County line, and the Davie county monitor is just across the Yadkin River from Davidson County. None of these monitors represent conditions in the counties where they are located.

In evaluating the data previously submitted (see attached), it is clear that Lincoln and Davie counties rank 27th and 28th in total VOC emissions. The total tons per day for VOC emissions for these two counties is less than 12. None of the other seven counties which are proposed for nonattainment has less than 40 tons per day of VOC emissions. These two counties are therefore showing less than one-third of the total emissions of the counties I proposed. Even more important is that the stationary sources of VOCs in these two counties account for only a small fraction of the total emissions. The sanctions on the existing and proposed facilities that will occur as a result of nonattainment designation are not required when the contribution from these sources is so insignificant.

Data on NOx for Lincoln and Davie Counties show the same discrepancies - less than 7 tons per day of total emissions as compared to more than 23 tons for the next closest county. Stationary sources account for an even smaller percentage of NOx than VOC's (less than 2% for Lincoln County and less than 1% for Davie County).

Granville County has total VOC and NOx emissions that are closer to the totals for the other counties I proposed for nonattainment. However, it is still approximately 50% less in both categories. A number of other counties show levels of emissions greater than Granville County and would be more likely candidates for designation if a larger area were necessary. However, to choose Granville County simply because a monitor there measured a violation from a neighbor will make it difficult to get support for

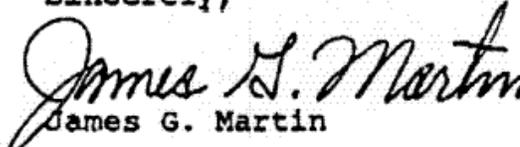
Mr. Greer C. Tidwell  
May 30, 1991  
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In addition to stationary sources data, the information on commuter travel was also examined for the three new counties. Lincoln County has only about 5,000 commuters to Gaston and Mecklenburg Counties combined. Davie County has less than 4,000 commuters to Guilford, Forsyth, and Davidson Counties. Granville shows less than 2,000 commuters to Wake and Durham Counties. Where I proposed expanding the I/M program into additional counties there were about 10,000 commuters to my nonattainment counties. Certainly, these low commuter levels for Lincoln, Davie, and Granville Counties do not justify nonattainment designation when they did not even merit consideration for I/M expansion.

The nonattainment designations should be based not on strained legalisms, but on the actions needed to protect public health and to correct the ozone problem. Adding Granville, Davie, and Lincoln Counties will not accomplish either goal. These counties are rural in nature, have a very low number of vehicles and vehicle miles traveled per county, and less than 51,000 people per county. These counties would be included and penalized simply because a monitor was located within their boundaries. Only marginal air quality improvement will occur with these additional designations since the sources of the emissions which contribute to the formation of ozone are the adjacent counties included in my proposed designation. I believe that the intent of the legislation was to include areas where necessary to improve air quality. My original designation of 7 counties would achieve the intent of the Clean Air Act; is supported by emissions data; and will not unnecessarily impact innocent counties simply because our monitoring network placed an instrument within the county boundaries.

I hope this information will convince you to reassess your interpretation of the Act and to support my previous nonattainment proposal. Staff of the Department of Environment, Health, and Natural Resources is available to discuss this matter further and to provide additional information for your consideration.

Sincerely,

  
James G. Martin

JGM/GTE

Attachments

cc: George T. Everett



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

AUG 7 1992

APT/APB

Honorable James G. Martin  
Governor of North Carolina  
State Capitol  
Raleigh, North Carolina 27611

Dear Governor Martin:

As you recall, last year we worked with you and your environmental staff in defining ozone nonattainment areas, the extent of the nonattainment boundary and the nonattainment classification. Based on those negotiations and the latest three years of air quality data prior to enactment of the Clean Air Act Amendments of 1990 (CAAA) (1987 - 1989), the following areas were designated as ozone nonattainment areas in North Carolina:

Charlotte - Gaston and Mecklenburg Counties

Greensboro/Winston-Salem - Davidson, Forsyth, and,  
Guilford Counties and a portion of Davie  
County

Raleigh/Durham - Durham and Wake Counties and a portion  
of Granville County

Mecklenburg County was designated nonattainment by operation of law as it was nonattainment prior to enactment. The Charlotte area was expanded to include Gaston County while Greensboro/Winston-Salem and Raleigh/Durham were designated nonattainment effective January 6, 1992. Greensboro/Winston-Salem does not have a history of ozone nonattainment. In fact, the 1988 ozone season is the only reason for this area to be designated nonattainment. Raleigh/Durham, however, does have data other than 1988 that would have required a nonattainment designation. For areas such as Greensboro/Winston-Salem that were recently designated as nonattainment for ozone and had air quality data showing attainment at the end of 1991, EPA promised to expedite requests to redesignate to attainment. The latest three years of ozone data indicate that the Greensboro/Winston-Salem area is now attaining the National Ambient Air Quality Standard (NAAQS) for ozone. EPA Region IV is prepared to expedite the redesignation process for this area. However, to initiate this process, you must submit a redesignation request accompanied by a maintenance plan submitted as a SIP revision pursuant to section 175A of the CAAA.

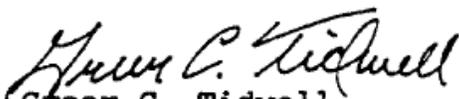
In a letter of January 31, 1992, my staff informed your Air Division Director on what must be included in a maintenance plan. For those areas that were only recently designated nonattainment and had no history of nonattainment (i.e., Greensboro/Winston-Salem), the maintenance plan consists of the following:

- 1) A VOC/NOx/CO 1990 base year emission inventory;
- 2) A 10 year projection inventory;
- 3) Contingency measures; and
- 4) Continuation of any regulatory requirements, including operation of ozone monitors.

The Raleigh/Durham area is also demonstrating attainment based on the latest three years of ozone data. Although the Maintenance plan for this area may be more rigorous (due to its history of nonattainment), the Region will also give a redesignation request for Raleigh/Durham a high priority.

For these areas, let me reiterate that Region IV will place a high priority to see that redesignation requests are expedited. If you or your staff have any questions or concerns, please feel free to call me at (404) 347-4728 or Douglas Neeley, Chief, Air Programs Branch, at (404) 347-2864.

Sincerely yours,

  
Greer C. Tidwell  
Regional Administrator



STATE OF NORTH CAROLINA  
OFFICE OF THE GOVERNOR  
RALEIGH 27603-8001

JAMES G. MARTIN  
GOVERNOR

August 24, 1992

Mr. Greer Tidwell, Regional Administrator  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Dear Mr. Tidwell:

Thank you for your letter of August 7 offering to reconsider the air quality designation of the Greensboro/Winston-Salem and Raleigh/Durham areas. Since these areas have now been in attainment for ozone for over three years, we are preparing a request for this new designation and will be forwarding it to you along with air quality maintenance plans prior to November 15, 1992.

North Carolina remains firmly committed to meeting the goals of the 1990 federal Clean Air Act Amendments in all areas. Achieving attainment status for ozone in the Greensboro/Winston-Salem and Raleigh/Durham areas will recognize a significant accomplishment in that effort.

This change in designation will have a significantly favorable economic effect on the following counties: Davidson, Forsyth, Guilford, Davie, Durham, Wake, and Granville. I urge your prompt action on this matter.

We look forward to working with you to develop the necessary documentation to support this designation request.

Sincerely,

  
James G. Martin

cc: Chairman of the Board of County Commissioners:  
Davidson  
Davie  
Guilford  
Forsyth  
Granville  
Durham  
Wake



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

AIR PROGRAMS BRANC

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EPA-REGION IV  
ATLANTA, GA.

MEMORANDUM

SUBJECT: Procedures for Processing Requests to Redesignate Areas to Attainment

FROM: John Calcagni, Director  
Air Quality Management Division (MD-15)

TO: Director, Air, Pesticides and Toxics Management Division, Regions I and IV  
Director, Air and Waste Management Division, Region II  
Director, Air, Radiation and Toxics Division, Region III  
Director, Air and Radiation Division, Region V  
Director, Air, Pesticides and Toxics Division, Region VI  
Director, Air and Toxics Division, Regions VII, VIII, IX, and X

Purpose

The Office of Air Quality Planning and Standards (OAQPS) expects that a number of redesignation requests will be submitted in the near future. Thus, Regions will need to have guidance on the applicable procedures for handling these requests, including maintenance plan provisions. This memorandum, therefore, consolidates the Environmental Protection Agency's (EPA's) guidance regarding the processing of requests for redesignation of nonattainment areas to attainment for ozone (O<sub>3</sub>), carbon monoxide (CO), particulate matter (PM-10), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead (Pb). Regions should use this guidance as a general framework for drafting Federal Register notices pertaining to redesignation requests. Special concerns for areas seeking redesignation from unclassifiable to attainment will be addressed on a case-by-case basis.

Background

Section 107(d)(3)(E) of the Clean Air Act, as amended, states that an area can be redesignated to attainment if the following conditions are met:

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AIR QUALITY PLANNING

1. The EPA has determined that the national ambient air quality standards (NAAQS) have been attained.
2. The applicable implementation plan has been fully approved by EPA under section 110(k).
3. The EPA has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions.
4. The State has met all applicable requirements for the area under section 110 and Part D.
5. The EPA has fully approved a maintenance plan, including a contingency plan, for the area under section 175A.

Each of these criteria is discussed in more detail in the following paragraphs. Particular attention is given to maintenance plan provisions at the end of this document since maintenance plans constitute a new requirement under the amended Clean Air Act. Exceptions to the guidance will be considered on a case-by-case basis.

#### 1. Attainment of the Standard

The State must show that the area is attaining the applicable NAAQS. There are two components involved in making this demonstration which should be considered interdependently. The first component relies upon ambient air quality data. The data that are used to demonstrate attainment should be the product of ambient monitoring that is representative of the area of highest concentration. These monitors should remain at the same location for the duration of the monitoring period required for demonstrating attainment. The data should be collected and quality-assured in accordance with 40 CFR 58 and recorded in the Aerometric Information Retrieval System (AIRS) in order for it to be available to the public for review. For purposes of redesignation, the Regional Office should verify that the integrity of the air quality monitoring network has been preserved.

For PM-10, an area may be considered attaining the NAAQS if the number of expected exceedances per year, according to 40 CFR 50.6, is less than or equal to 1.0. For O<sub>3</sub>, the area must show that the average annual number of expected exceedances, according to 40 CFR 50.9, is less than or equal to 1.0 based on data from all monitoring sites in the area or its affected downwind environs. In making this showing, both PM-10 and O<sub>3</sub> must rely on 3 complete, consecutive calendar years of quality-assured air quality monitoring data, collected in accordance with 40 CFR 50, Appendices H and K. For CO, an area may be considered attaining the NAAQS if there are no violations, as determined in accordance

with 40 CFR 50.8, based on 2 complete, consecutive calendar years of quality-assured monitoring data. For SO<sub>2</sub>, according to 40 CFR 50.4, an area must show no more than one exceedance annually and for Pb, according to section 50.12, an area may show no exceedances on a quarterly basis.

The second component relies upon supplemental EPA-approved air quality modeling. No such supplemental modeling is required for O<sub>3</sub> nonattainment areas seeking redesignation. Modeling may be necessary to determine the representativeness of the monitored data. For pollutants such as SO<sub>2</sub> and CO, a small number of monitors typically is not representative of areawide air quality or areas of highest concentration. When dealing with SO<sub>2</sub>, Pb, PM-10 (except for a limited number of initial moderate nonattainment areas), and CO (except moderate areas with design values of 12.7 parts per million or lower at the time of passage of the Clean Air Act Amendments of 1990), dispersion modeling will generally be necessary to evaluate comprehensively sources' impacts and to determine the areas of expected high concentrations based upon current conditions. Areas which were designated nonattainment based on modeling will generally not be redesignated to attainment unless an acceptable modeling analysis indicates attainment. Regions should consult with OAQPS for further guidance addressing the need for modeling in specific circumstances.

## 2. State Implementation Plan (SIP) Approval

The SIP for the area must be fully approved under section 110(k),<sup>1</sup> and must satisfy all requirements that apply to the area. It should be noted that approval action on SIP elements and the redesignation request may occur simultaneously. An area cannot be redesignated if a required element of its plan is the subject of a disapproval; a finding of failure to submit or to implement the SIP; or partial, conditional, or limited approval. However, this does not mean that earlier issues with regard to the SIP will be reopened. Regions should not reconsider those things that have already been approved and for which the Clean Air Act Amendments did not alter what is required. In contrast, to the extent the Amendments add a requirement or alter an existing requirement so that it adds something more, Regions should consider those issues. In addition, requests from areas known to be affected by dispersion techniques which are inconsistent with EPA guidance will continue to be considered unapprovable under section 110 and will not qualify for redesignation.

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<sup>1</sup>Section 110(k) contains the requirements for EPA action on plan submissions. It addresses completeness, deadlines, full and partial approval, conditional approval, and disapproval.

### 3. Permanent and Enforceable Improvement in Air Quality

The State must be able to reasonably attribute the improvement in air quality to emission reductions which are permanent and enforceable.<sup>2</sup> Attainment resulting from temporary reductions in emission rates (e.g., reduced production or shutdown due to temporary adverse economic conditions) or unusually favorable meteorology would not qualify as an air quality improvement due to permanent and enforceable emission reductions.

In making this showing, the State should estimate the percent reduction (from the year that was used to determine the design value for designation and classification) achieved from Federal measures such as the Federal Motor Vehicle Control Program and fuel volatility rules as well as control measures that have been adopted and implemented by the State. This estimate should consider emission rates, production capacities, and other related information to clearly show that the air quality improvements are the result of implemented controls. The analysis should assume that sources are operating at permitted levels (or historic peak levels) unless evidence is presented that such an assumption is unrealistic.

### 4. Section 110 and Part D Requirements

For the purposes of redesignation, a State must meet all requirements of section 110 and Part D that were applicable prior to submittal of the complete redesignation request. When evaluating a redesignation request, Regions should not consider whether the State has met requirements that come due under the Act after submittal of a complete redesignation request.<sup>3</sup>

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<sup>2</sup>This is consistent with EPA's existing policy on redesignations as stated in an April 21, 1983 memorandum titled "Section 107 Designation Policy Summary." This memorandum states that in order for an area to be redesignated to attainment, the State must show that "actual enforceable emission reductions are responsible for the recent air quality improvement." This element of the policy retains its validity under the amended Act pursuant to section 193. [Note: other aspects of the April 21, 1983 memorandum have since been superseded by subsequent memorandums; interested parties should consult with OAQPS before relying on these aspects, e.g. those relating to required years of air quality data.]

<sup>3</sup>Under section 175A(c), however, the requirements of Part D remain in force and effect for the area until such time as it is redesignated. Upon redesignation to attainment, the requirements that became due under section 175A(c) after submittal of the complete redesignation request would no longer be applicable.

However, any requirements that came due prior to submittal of the redesignation request must be fully approved into the plan at or before the time EPA redesignates the area.

To avoid confusion concerning what requirements will be applicable for purposes of redesignation, Regions should encourage States to work closely with the appropriate Regional Office early in the process. This will help to ensure that a redesignation request submitted by the State has a high likelihood of being approved by EPA. Regions should advise States of the practical planning consequences if EPA disapproves the redesignation request or if the request is invalidated because of violations recorded during EPA's review. Under such circumstances, EPA does not have the discretion to adjust schedules for implementing SIP requirements. As a result, an area may risk sanctions and/or Federal implementation plan implementation that could result from failure to meet SIP submittal or implementation requirements.

a. Section 110 Requirements

Section 110(a)(2) contains general requirements for nonattainment plans. Most of the provisions of this section are the same as those contained in the pre-amended Act. We will provide guidance on these requirements as needed.<sup>4</sup>

b. Part D Requirements

Part D consists of general requirements applicable to all areas which are designated nonattainment based on a violation of the NAAQS. The general requirements are followed by a series of subparts specific to each pollutant. The general requirements appear in subpart 1. The requirements relating to O<sub>3</sub>, CO, PM-10, SO<sub>2</sub>, NO<sub>2</sub>, and Pb appear in subparts 2 through 5. In those instances where an area is subject to both the general nonattainment provisions in subpart 1 as well as one of the pollutant-specific subparts, the general provisions may be subsumed within, or superseded by, the more specific requirements of subparts 2 through 5.

If an area was not classified under section 181 for O<sub>3</sub>, or section 186 for CO, then that area is only subject to the provisions of subpart 1, "Nonattainment Areas in General." In addition to relevant provisions in subpart 1, an O<sub>3</sub> and CO area, which is classified, must meet all applicable requirements in subpart 2, "Additional Provisions for Ozone Nonattainment Areas," and subpart 3, "Additional Provisions for Carbon Monoxide

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<sup>4</sup>General guidance regarding the requirements for SIP's may be found in the "General Preamble to Title I of the 1990 Clean Air Act Amendments," 57 FR 13498 (April 16, 1992).

Nonattainment Areas," respectively, before the area may be redesignated to attainment. All PM-10 nonattainment areas (whether classified as moderate or serious) must similarly meet the applicable general provisions of subpart 1 and the specific PM-10 provisions in subpart 4, "Additional Provisions for Particulate Matter Nonattainment Areas." Likewise, SO<sub>2</sub>, NO<sub>2</sub>, and Pb nonattainment areas are subject to the applicable general nonattainment provisions in subpart 1 as well as the more specific requirements in subpart 5, "Additional Provisions for Areas Designated Nonattainment for Sulfur Oxides, Nitrogen Dioxide, and Lead."

i. Section 172(c) Requirements

This section contains general requirements for nonattainment plans. A thorough discussion of these requirements may be found in the General Preamble to Title I [57 FR 13498 (April 16, 1992)]. The EPA anticipates that areas will already have met most or all of these requirements to the extent that they are not superseded by more specific Part D requirements. The requirements for reasonable further progress, identification of certain emissions increases, and other measures needed for attainment will not apply for redesignations because they only have meaning for areas not attaining the standard. The requirements for an emission inventory will be satisfied by the inventory requirements of the maintenance plan. The requirements of the Part D new source review program will be replaced by the prevention of significant deterioration (PSD) program once the area has been redesignated. However, in order to ensure that the PSD program will become fully effective immediately upon redesignation, either the State must be delegated the Federal PSD program or the State must make any needed modifications to its rules to have the approved PSD program apply to the affected area upon redesignation.

ii. Conformity

The State must work with EPA to show that its SIP provisions are consistent with section 176(c)(4) conformity requirements. The redesignation request should include conformity procedures, if the State already has these procedures in place. Additionally, we currently interpret the conformity requirement to apply to attainment areas. However, EPA has not yet issued its conformity regulations specifying what areas are subject to the conformity requirement. Therefore, if a State does not have conformity procedures in place at the time that it submits a redesignation request, the State must commit to follow EPA's conformity regulation upon issuance, as applicable. If the State submits the redesignation request subsequent to EPA's issuance of the conformity regulations, and the conformity requirement became applicable to the area prior to submission,

the State must adopt the applicable conformity requirements before EPA can redesignate the area.

#### 5. Maintenance Plans

Section 107(d)(3)(E) of the amended Act stipulates that for an area to be redesignated, EPA must fully approve a maintenance plan which meets the requirements of section 175A. A State may submit both the redesignation request and the maintenance plan at the same time and rulemaking on both may proceed on a parallel track. Maintenance plans may, of course, be submitted and approved by EPA before a redesignation is requested. However, according to section 175A(c), pending approval of the maintenance plan and redesignation request, all applicable nonattainment area requirements shall remain in place.

Section 175A defines the general framework of a maintenance plan. The maintenance plan will constitute a SIP revision and must provide for maintenance of the relevant NAAQS in the area for at least 10 years after redesignation. Section 175A further states that the plan shall contain such additional measures, if any, as may be necessary to ensure such maintenance. Because the Act requires a demonstration of maintenance for 10 years after an area is redesignated (not 10 years after submittal of a redesignation request), the State should plan for some lead time for EPA action on the request. In other words, the maintenance demonstration should project maintenance for 10 years, beginning from a date which factors in the time necessary for EPA review and approval action on the redesignation request. In determining the amount of lead time to allow, States should consider that section 107(d)(3)(D) grants the Administrator up to 18 months from receipt of a complete submittal to process a redesignation request. The statute also requires the State to submit a revision of the SIP 8 years after the original redesignation request is approved to provide for maintenance of the NAAQS for an additional 10 years following the first 10-year period [see section 175A(b)].

In addition, the maintenance plan shall contain such (contingency measures) as the Administrator deems necessary to ensure prompt correction of any violation of the NAAQS [see section 175A(d)]. The Act provides that, at a minimum, the contingency measures must include a requirement that the State will implement all measures contained in the nonattainment SIP prior to redesignation. Failure to maintain the NAAQS and triggering of the contingency plan will not necessitate a revision of the SIP unless required by the Administrator, as stated in section 175A(d).

The following is a list of core provisions that we anticipate will be necessary to ensure maintenance of the relevant NAAQS in an area seeking redesignation from

nonattainment to attainment. We therefore recommend that States seeking redesignation of a nonattainment area consider these provisions. However, any final EPA determination regarding the adequacy of a maintenance plan will be made following review of the plan submittal in light of the particular circumstances facing the area proposed for redesignation and based on all relevant information available at the time.

• a. Attainment Inventory

The State should develop an attainment emissions inventory to identify the level of emissions in the area which is sufficient to attain the NAAQS.<sup>5</sup> This inventory should be consistent with EPA's most recent guidance on emission inventories for nonattainment areas available at the time and should include the emissions during the time period associated with the monitoring data showing attainment.<sup>6</sup>

Source size thresholds are 100 tons/year for SO<sub>2</sub>, NO<sub>2</sub>, and PM-10 areas, and 5 tons/year for Pb based upon 40 CFR 51.100(k) and 51.322, as well as established practice for AIRS data. The source size threshold for serious PM-10 areas is 70 tons/year

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<sup>5</sup>Where the State has made an adequate demonstration that air quality has improved as a result of the SIP (as discussed previously), the attainment inventory will generally be the actual inventory at the time the area attained the standard.

<sup>6</sup>The EPA's current guidance on the preparation of emission inventories for O<sub>3</sub> and CO nonattainment areas is contained in the following documents: "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone: Volume I" (EPA-450/4-91-016), "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone: Volume II" (EPA-450/4-91-014), "Emission Inventory Requirements for Ozone State Implementation Plans" (EPA-450/4-91-010), "Emission Inventory Requirements for Carbon Monoxide Implementation Plans" (EPA-450/4-91-011), "Guideline for Regulatory Application of the Urban Airshed Model" (EPA-450/4-91-013), "Procedures for Emission Inventory Preparation: Volume IV, Mobile Sources" (EPA-450/4-81-026d), and "Procedures for Preparing Emission Inventory Projections" (EPA-450/4-91-019). The EPA does not currently have specific guidance on attainment emissions inventories for SO<sub>2</sub>. In lieu thereof, States are referred to the guidance on emissions data to be used as input to modeling demonstrations, contained in Table 9.1 of EPA's "Guideline on Air Quality Models (Revised)" (EPA-450/2-78-027R), July 1987, which is generally applicable to all criteria pollutants. Emission inventory procedures and requirements documents are currently being prepared by OAQPS for PM-10 and Pb; these documents are due for release by summer 1992.

according to Clean Air Act section 189(b)(3). However, the inventory should include sources below these size thresholds if these smaller sources were included in the SIP attainment demonstration. Where sources below the 100, 70, and 5 tons/year-size thresholds (e.g., areas with smaller source size definitions) are subject to a State's minor source permit program, these sources need only be addressed in the aggregate to the extent that they result in areawide growth.

For O<sub>3</sub> nonattainment areas, the inventory should be based on actual "typical summer day" emissions of O<sub>3</sub> precursors (volatile organic compounds and nitrogen oxides) during the attainment year. This will generally correspond to one of the periodic inventories required for nonattainment areas to reconcile milestones. For CO nonattainment areas, the inventory should be based on actual "typical CO season day" emissions for the attainment year. This will generally correspond to one of the periodic inventories required for nonattainment areas.

• b. Maintenance Demonstration

A State may generally demonstrate maintenance of the NAAQS by either showing that future emissions of a pollutant or its precursors will not exceed the level of the attainment inventory, or by modeling to show that the future mix of sources and emission rates will not cause a violation of the NAAQS. Under the Clean Air Act, many areas are required to submit modeled attainment demonstrations to show that proposed reductions in emissions will be sufficient to attain the applicable NAAQS. For these areas, the maintenance demonstration should be based upon the same level of modeling. In areas where no such modeling was required, the State should be able to rely on the attainment inventory approach. In both instances, the demonstration should be for a period of 10 years following the redesignation.

Where modeling is relied upon to demonstrate maintenance, each plan should contain a summary of the air quality concentrations expected to result from application of the control strategy. In the process, the plan should identify and describe the dispersion model or other air quality model used to project ambient concentrations (see 40 CFR 51.46).

In either case, to satisfy the demonstration requirement the State should project emissions for the 10-year period following redesignation, either for the purpose of showing that emissions will not increase over the attainment inventory or for conducting modeling.<sup>7</sup> The projected inventory should consider future growth, including population and industry, should be consistent

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<sup>7</sup>Guidance for projecting emissions may be found in the emissions inventory guidance cited in footnote 6.

with the attainment inventory, and should document data inputs and assumptions. All elements of the demonstration (e.g., emission projections, new source growth, and modeling) should be consistent with current EPA modeling guidance.<sup>8</sup> For O<sub>3</sub> and CO, the projected emissions should reflect the expected actual emissions based on enforceable emission rates and typical production rates.

For CO, a State should address the areawide component of the maintenance demonstration either by showing that future CO emissions will not increase or by conducting areawide modeling. Preferably, the State should carry out hot-spot modeling that is consistent with the Guideline on Air Quality Models (Revised), in order to demonstrate maintenance of the NAAQS. In particular, if the nonattainment problem is related to a pattern of hot-spots then hot-spot modeling should generally be conducted. However, hot-spot modeling is not automatically required. For example, if the nonattainment problem was related solely to stationary point sources, or if highway improvements have been implemented and the associated emission reductions and travel characteristics can be qualitatively documented, then hot-spot modeling is not required. In such cases, adequate documentation as well as the concurrence of Headquarters is needed.

Any assumptions concerning emission rates must reflect permanent, enforceable measures. In other words, a State generally cannot take credit in the maintenance demonstration for reductions unless there are regulations in place requiring those reductions or the reductions are otherwise shown to be permanent. Therefore, the State will be expected to maintain its implemented control strategy despite redesignation to attainment, unless such measures are shown to be unnecessary for maintenance or are replaced with measures that achieve equivalent reductions (see additional discussion under "Contingency Plan"). Emission reductions from source shutdowns can be considered permanent and enforceable to the extent that those shutdowns have been reflected in the SIP and all applicable permits have been modified accordingly.

Modeling used to demonstrate attainment may be relied upon in the maintenance demonstration where the modeling conforms to current EPA guidance and where the State has projected no significant changes in the modeling inputs during the intervening time. Where the original attainment demonstration may no longer be relied upon, States will be expected to remodel using current

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<sup>8</sup>The EPA-approved modeling guidance may be found in the following documents: "Guideline on Air Quality Models (Revised)," OAQPS, RTP, NC (EPA-450/2-78-027R), July 1986; and "PM-10 SIP Development Guideline," OAQPS, RTP, NC (EPA-450/2-86-001), June 1987.

EPA referenced techniques.<sup>9</sup> This may be necessary where, for example, there has been a change in emissions or a change in the siting of new sources or modifications such that air quality may no longer be accurately represented by the existing modeling.

c. Monitoring Network

Once an area has been redesignated, the State should continue to operate an appropriate air quality monitoring network, in accordance with 40 CFR Part 58, to verify the attainment status of the area. The maintenance plan should contain provisions for continued operation of air quality monitors that will provide such verification. In cases where measured mobile source parameters (e.g., vehicle miles traveled congestion) have changed over time, the State may also need to perform a saturation monitoring study to determine the need for, and location of, additional permanent monitors.

d. Verification of Continued Attainment

Each State should ensure that it has the legal authority to implement and enforce all measures necessary to attain and to maintain the NAAQS. Sections 110(a)(2)(B) and (F) of the Clean Air Act, as amended, and regulations promulgated at 40 CFR 51.110(k), suggest that one such measure is the acquisition of ambient and source emission data to demonstrate attainment and maintenance.

Regardless of whether the maintenance demonstration is based on a showing that future emission inventories will not exceed the attainment inventory or on modeling, the State submittal should indicate how the State will track the progress of the maintenance plan. This is necessary due to the fact that the emission projections made for the maintenance demonstration depend on assumptions of point and area source growth.

One option for tracking the progress of the maintenance demonstration, provided here as an example, would be for the State to periodically update the emissions inventory. In this case, the maintenance plan should specify the frequency of any planned inventory updates. Such an update could be based, in part, on the annual AIRS update and could indicate new source growth and other changes from the attainment inventory (e.g., changes in vehicle miles travelled or in traffic patterns). As an alternative to a complete update of the inventory, the State may choose to do a comprehensive review of the factors that were used in developing the attainment inventory to show no significant change. If this review does show a significant change, the State should then perform an update of the inventory.

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<sup>9</sup>See references for modeling guidance cited in footnote 8

Where the demonstration is based on modeling, an option for tracking progress would be for the State to periodically (typically every 3 years) reevaluate the modeling assumptions and input data. In any event, the State should monitor the indicators for triggering contingency measures (as discussed below).

e. Contingency Plan

Section 175A of the Act also requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. These contingency measures are distinguished from those generally required for nonattainment areas under section 172(c)(9) and those specifically required for O<sub>3</sub> and CO nonattainment areas under sections 182(c)(9) and 187(a)(3), respectively. For the purposes of section 175A, a State is not required to have fully adopted contingency measures that will take effect without further action by the State in order for the maintenance plan to be approved. However, the contingency plan is considered to be an enforceable part of the SIP and should ensure that the contingency measures are adopted expeditiously once they are triggered. The plan should clearly identify the measures to be adopted, a schedule and procedure for adoption and implementation, and a specific time limit for action by the State. As a necessary part of the plan, the State should also identify specific indicators, or triggers, which will be used to determine when the contingency measures need to be implemented.

Where the maintenance demonstration is based on the inventory, the State may, for example, identify an "action level" of emissions as the indicator. If later inventory updates show that the inventory has exceeded the action level, the State would take the necessary steps to implement the contingency measures. The indicators would allow a State to take early action to address potential violations of the NAAQS before they occur. By taking early action, States may be able to prevent any actual violations of the NAAQS and, therefore, eliminate the need on the part of EPA to redesignate an area to nonattainment.

Other indicators to consider include monitored or modeled violations of the NAAQS (due to the inadequacy of monitoring data in some situations). It is important to note that air quality data in excess of the NAAQS will not automatically necessitate a revision of the SIP where implementation of contingency measures is adequate to address the cause of the violation. The need for a SIP revision is subject to the Administrator's discretion.

The EPA will review what constitutes a contingency plan on a case-by-case basis. At a minimum, it must require that the State will implement all measures contained in the Part D nonattainment

plan for the area prior to redesignation [see section 175A(d)]. This language suggests that a State may submit a SIP revision at the time of its redesignation request to remove or reduce the stringency of control measures. Such a revision can be approved by EPA if it provides for compensating equivalent reductions. A demonstration that measures are equivalent would have to include appropriate modeling or an adequate justification. Alternatively, a State might be able to demonstrate (through EPA-approved modeling) that the measures are not necessary for maintenance of the standard. In either case, the contingency plan would have to provide for implementation of any measures that were reduced or removed after redesignation of the area.

#### Summary

As stated previously, this memorandum consolidates EPA's redesignation and maintenance plan guidance and Regions should rely upon it as a general framework in drafting Federal Register notices. It is strongly suggested that the Regional Offices share this document with the appropriate States. This should give the States a better understanding of what is expected from a redesignation request and maintenance plan under existing policy. Any necessary changes to existing Agency policy will be made through our action on specific redesignation requests and the review of section 175A maintenance plans for these particular areas, both of which are subject to notice and comment rulemaking procedures. Thus, in applying this memorandum to specific circumstances in a rulemaking, Regions should consider the applicability of the underlying policies to the particular facts and to comments submitted by any person. If your staff members have questions which require clarification, they may contact Sharon Reinders at (919) 541-5284 for O<sub>3</sub>- and CO-related issues, and Eric Ginsburg at (919) 541-0877 for SO<sub>2</sub>-, PM-10-, and Pb-related issues.

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