

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[DC-2025, MD-3064, VA-5052; FRL-6922-9]

Approval and Promulgation of Air Quality Implementation Plans; District of Columbia, Maryland, Virginia; Post 1996 Rate-of-Progress Plans, One-Hour Ozone Attainment Demonstrations and Attainment Date Extension for the Metropolitan Washington D.C. Ozone Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is approving the State Implementation Plans (SIPs) consisting of the Post-1996 rate-of-progress (ROP) plans with transportation control measures and the one-hour ozone attainment demonstrations for the Metropolitan Washington D.C. serious nonattainment area (the Washington area) submitted by the District of Columbia's Department of Health (DoH), Maryland's Department of the Environment (MDE) and by the Virginia Department of Environmental Quality (VADEQ). EPA is also approving the request to extend the attainment date to November 15, 2005. The Clean Air Act (CAA or the Act) requires EPA to establish national air quality standards (NAAQS) for certain widespread pollutants that cause or contribute to air pollution for the purposes of the one-hour ozone NAAQS. The Post-1996 ROP plans and

the one-hour ozone attainment demonstrations will result in significant emission reductions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) in the Washington area. The intended effect of this action is to approve these SIP revisions as meeting the requirements of the Act.

DATES: This final rule is effective on February 2, 2001.

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103; District of Columbia Department of Public Health, Air Quality Division, 51 N Street, N.E., Washington, DC 20002; Maryland Department of the Environment, 2500 Broening Highway, Baltimore, Maryland, 21224; and the Virginia Department of Environmental Quality, 629 East Main Street, Richmond, Virginia, 23219.

FOR FURTHER INFORMATION CONTACT: Christopher Cripps, (215) 814-2179 or Janice Lewis, (215) 814-2185 at the EPA Region III office above or e-mail Cripps.Christopher@epa.gov or Lewis.Janice@epa.gov.

SUPPLEMENTARY INFORMATION:

This **SUPPLEMENTARY INFORMATION** section is organized to address the following questions:

- A. What actions is EPA taking today?
- B. What Previous Action Has Been Taken on These SIP Revisions?
- C. What were the conditions for approval provided in the Notice of Proposed Rulemakings for the Post-1996 ROP

- plans and the attainment demonstrations?
- D. What amendments to the attainment demonstration SIP did the Washington, DC area States' make since the December 16, 1999?
- E. What State enforceable commitments were needed for approval?
- F. What was the scope of the July 28, 2000 Supplemental Notice of Proposed Rulemaking?
- G. What was the scope of the October 16, 2000 Supplemental Notice of Availability?
- H. When did EPA make a determination regarding the adequacy of the Motor Vehicle Emissions Budgets for the Metropolitan Washington, DC area?
- I. What SIP elements did EPA need to take final action on before full approval of the attainment demonstration could be granted?
- J. What are the Clean Air Act measures relied on for the post-1996 and attainment demonstration SIP submission?
- K. What are the conformity budgets in the post-1996 ROP plans and the attainment demonstrations?
- L. What happens to the 2005 budgets when States change their budgets using the MOBILE6 Model?
- M. What comments were received on the proposed approvals and how has EPA responded to those?

I. Background

A. What Action Is EPA Taking Today?

EPA is approving the Post-1996 ROP plans, the one-hour attainment demonstrations and attainment date extension submitted by DoH, MDE and VADEQ for the Washington area. The following tables identify submittal dates and amendment dates for the post-1996 ROP plans and the attainment demonstrations:

TABLE 1.—POST-1996 ROP PLANS

	DC	MD	VA
Initial submittal dates	November 10, 1997	December 24, 1997	December 19, 1997.
Amendment dates	May 25, 1999	May 20, 1999	May 25, 1999.

TABLE 2.—ATTAINMENT DEMONSTRATIONS

	DC	MD	VA
Initial submittal dates	April 24, 1998	April 29, 1998	April 29, 1998.
Amendment dates	October 27, 1998	August 17, 1998	August 18, 1998.
Supplemental dates	February 16, 2000	February 14, 2000	February 9, 2000.
Supplemental dates	March 22, 2000	March 31, 2000	March 31, 2000.
		(MD SIP No. 00-01)	
		(MD SIP No. 00-02)	

TABLE 3.—ATTAINMENT DATE EXTENSION REQUEST

	DC	MD	VA
Initial submittal dates	September 20, 1999	July 16, 1999	September 3, 1999.
Supplemental dates	February 16, 2000	February 14, 2000	February 9, 2000.

B. What Previous Action Has Been Taken on These SIP Revisions?

On September 28, 2000, and October 19, 2000, EPA published Notices of Proposed Rulemaking on the Post-1996 plans for the Washington area (65 FR 58243 and 65 FR 62658). On December 16, 1999 (64 FR 70460), we proposed approval of the attainment demonstration and request for an attainment date extension for the Metropolitan Washington, DC area.

On February 22, 2000 (65 FR 8703), EPA published a notice of availability on guidance memoranda relating to the ten one-hour ozone attainment demonstrations (including the Washington area) proposed for approval or conditional approval on December 16, 1999. The guidance memoranda are entitled: "Guidance on Motor Vehicle Emissions Budgets in One-Hour Ozone Attainment Demonstrations" dated November 3, 1999, and "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas" dated November 30, 1999.

On July 28, 2000, EPA published a supplemental notice of proposed rulemaking (SNPR) on the attainment demonstration (65 FR 46383). In that supplemental notice, we clarified and expanded on two issues relating to the motor vehicle emissions budgets in these SIPs. This supplemental notice is discussed in the section entitled "What was the scope of the July 28, 2000 Supplemental Notice of Proposed Rulemaking?" below.

On October 16, 2000 (65 FR 61134), another notice of supplemental proposed rulemaking was published to specifically support the proposed attainment demonstration published on December 16, 1999 for the four serious ozone nonattainment areas (including the Washington area). Originally, EPA established a comment period for this supplemental proposal ending on October 31, 2000. A notice extending the comment period on the October 16, 2000 notice was published on November 2, 2000 (65 FR 65818). An additional notice correcting a typographical error was published on November 9, 2000 (65 FR 67319). This supplemental notice is discussed in the section entitled "What was the scope of the October 16, 2000 Supplemental Notice of Availability?" below.

Comments received on all of the proposed notices listed in this section relevant to the Metropolitan Washington, DC area attainment demonstration, Post-1996 ROP plan and

attainment date extension are discussed in section I. M. below.

C. What Were the Conditions for Approval Provided in the Notice of Proposed Rulemakings for the Post-1996 ROP Plans and the Attainment Demonstrations?

On December 16, 1999 (64 FR 70460), we proposed approval of the attainment demonstration and request for an attainment date extension for the Metropolitan Washington, DC area. Our approval was contingent upon certain actions by Maryland, Virginia and the District of Columbia ("the District").

These actions were:

1. The District, Maryland and Virginia each had to adopt and submit an adequate motor vehicle emissions budget and concurrently submit a list of potential control measures that, when implemented, would be expected to provide sufficient additional emission reductions to ensure nonattainment area emissions in 2005 are equal to or less than the 1999 control strategy levels contained in the attainment demonstrations considering growth. These measures could not involve additional limits on highway construction beyond those that could be imposed under the submitted motor vehicle emissions budget. The states and the District needed to submit the revised budget and list of potential measures in time to allow EPA to determine the budgets adequate by May 31, 2000.

2. The District, Maryland and Virginia each had to adopt and submit an enforceable commitment, or reaffirm an existing enforceable commitment to do the following:

(a) Submit measures by July 1, 2000 for additional emission reductions, if any, as required to ensure nonattainment area emissions in 2005 are equal to or less than the 1999 control strategy levels.

(b) Submit a revised SIP and motor vehicle emissions budget by July 1, 2000 if additional measures affect the motor vehicle emissions inventory.

(c) Submit a revised SIP and motor vehicle emissions budget 1 year after the mobile sources MOBILE6 model is issued (required only if the attainment SIPs include the benefits of EPA's Tier 2/sulfur rule).

(d) Perform a mid-course review.

3. The District, Maryland and Virginia each had to adopt and submit a rule or rules for additional emission reductions needed, if any, to ensure nonattainment area emissions in 2005 are equal to or less than the 1999 control strategy levels. If any of these adopted measures affected the motor vehicle emissions

budgets, then the District, Maryland and Virginia each needed to adopt and submit a revised SIP that incorporated revised motor vehicle emissions budgets reflecting such measures. These rules and revised motor vehicle emissions budgets, if any, needed to be submitted by July 1, 2000.

D. What Amendments to the Attainment Demonstration SIP did the Washington, D.C., Area States' Make Since December 16, 1999?

The following is a summary of such submittals which include submittal dates of revisions, the content of these submissions and other pertinent facts regarding these submissions:

On February 9, 14 and 16, 2000, Virginia, Maryland and the District, respectively, submitted the "State Implementation Plan (SIP) Revision, Phase II Attainment Plan for the Washington DC-MD-VA Nonattainment Area"—dated February 3, 2000. Hereafter in this notice the phrase "the February 3 plan document" means the document entitled "State Implementation Plan (SIP) Revision, Phase II Attainment Plan for the Washington DC-MD-VA Nonattainment Area" that was dated February 3, 2000. These submittals contain the 2005 motor vehicle emissions budgets that include Tier 2/sulfur benefits, commitments to a mid-course review and a list of potential control measures (from which a set of measures could be selected) that when implemented, would be expected to provide sufficient additional emission reductions to ensure nonattainment area emissions in 2005 are equal to or less than the control strategy levels contained in the modeled demonstration of attainment. Also, they contain a demonstration that sufficient additional emission reductions are included to ensure nonattainment area emissions in 2005 are equal to or less than the 1999 control strategy levels contained in the attainment demonstrations considering growth.

On March 22 and 31, 2000, the District, Maryland and Virginia submitted the "Proposed Revision to State Implementation Plan (SIP) Revision, Phase II Attainment Plan for the Washington DC-MD-VA Nonattainment Area, establishing the out year Mobile Emissions Budgets for Transportation Conformity"—dated March 22, 2000. (Hereafter in this notice the phrase "the March 22 plan document" means the document entitled "Proposed Revision to State Implementation Plan (SIP) Revision, Phase II Attainment Plan for the Washington DC-MD-VA Nonattainment Area, establishing out year Mobile

Emissions Budgets for Transportation Conformity” that was dated March 22, 2000.) These submittals amended chapters 1 and 9 of the February 3 plan document. These submittals established outyear budgets and submitted an enforceable commitment to revise the SIP and motor vehicle emissions budget 1 year after the MOBILE6 model is issued. In today’s action EPA is acting only on the commitment found in section 9.1.1.2 entitled “Commitment to Revise Mobile Emissions Budgets” to revise the motor vehicle emissions budget one-year after the MOBILE6 model is issued. The portions of the March 22 plan document that establish outyear budgets will be the subject of a separate rulemaking action.

E. What State Enforceable Commitments Were Needed for Approval?

Of the four enforceable commitments described in the December 16, 1999, NPR two are now moot: Numbers 2.a and 2.b described in the section entitled “What were the conditions for approval in our December 16, 1999 Notice of Proposed Rulemaking” above. The first is moot because EPA has approved the relevant rules. The Regional Administrator has signed the final action final approving the rules for additional reductions, and these final actions have been or shortly will be published in the **Federal Register**. The second is moot because none of these new measures affect the motor vehicle emissions budgets. Thus the relevant criterion for approving the attainment demonstration SIP is whether or not the States and the District have submitted SIP revisions to fulfill the other relevant conditions for approval set forth in the December 16, 1999 NPR.

Of the two remaining commitments regarding the mid-course review and revision of the motor vehicle emissions budgets using the MOBILE6 model, the States and the District submitted specific enforceable commitments in the February 3 and March 22 plan documents to meet these conditions.

F. What Was the Scope of the July 28, 2000 Supplemental Notice of Proposed Rulemaking?

On July 28, 2000, EPA published a supplemental notice of proposed rulemaking (SNPR) on the attainment demonstration (65 FR 46383). In that supplemental notice, we clarified and expanded on two issues relating to the motor vehicle emissions budgets in these SIPs:

First, we proposed a clarification of what occurs if we finalize conditional or full approval of any of these SIPs based on a State commitment to revise the

SIP’s motor vehicle emissions budgets in the future. Under the proposal, the motor vehicle emissions budgets in the approved SIP will apply for transportation conformity purposes only until the budgets are revised consistent with the commitment and we have found the new budgets adequate. Once we have found the newly revised budgets adequate, then they would apply instead of the previous conditionally or fully approved budgets. Normally, revisions to approved budgets cannot be used for conformity purposes until we approve the revised budgets into the SIP. Therefore, we proposed to clarify that when our approval of these 1-hour ozone attainment demonstrations is based on a commitment to future revisions to the budget, our approval of the budget lasts only until revisions to satisfy those conditions are submitted and we find them adequate.

Second, we proposed that States may opt to commit to revise their emissions budgets 1 year after the release of the MOBILE6 model, as originally proposed on December 16, 1999. Or, States may commit to a new option, i.e., to revise their budgets 2 years following the release of the MOBILE6 model, provided that conformity is not determined without adequate MOBILE6-derived SIP budgets during the second year. This proposal did not affect the Metropolitan Washington, DC area because the District, Maryland and Virginia have submitted an enforceable commitment to revise the motor vehicle emissions budgets within one year after the official release of the MOBILE6 model.

In addition, we reopened the comment period to take comment on these two issues and to allow comment on any additional materials that were placed in the dockets for the proposed actions close to or after the initial comment period closed on February 14, 2000 (65 FR at 46383, July 28, 2000). For many of the areas, additional information had been placed in the docket close to or since the initial comment period concluded. In general, these materials were identified as consisting of motor vehicle emissions budgets, and revised or additional commitments or reaffirmations submitted by the States (65 FR at 46387, July 28, 2000).

G. What Was the Scope of the October 16, 2000 Supplemental Notice of Availability?

On October 16, 2000 EPA published a Notice of Availability and reopening of the comment period (65 FR 61134).

This notice was in regards to an analysis to evaluate emission levels of oxides of nitrogen (NO_x) and volatile

organic compounds (VOC) and their relationships to the application of current and anticipated control measures expected to be implemented in four serious one-hour ozone nonattainment areas. This analysis was done to determine if additional reasonably available control measures (RACM) are available after adoption of Act required measures for the following serious ozone nonattainment areas: Greater Connecticut; Springfield, Massachusetts; Washington, D.C.-Virginia-Maryland; and Atlanta, Georgia. The EPA performed this analysis in response to comments that were submitted on the proposals on these areas’ one-hour ozone attainment demonstrations. The EPA took action to propose approval (and disapproval in the alternative) of these areas’ State implementation plans (SIPs) on December 16, 1999 (Greater Connecticut (64 FR 70332); Springfield (64 FR 70319); Metropolitan Washington (64 FR 70460); and Atlanta (64 FR 70478)). This information supplemented the December 16, 1999 proposals.

H. When Did EPA Make a Determination Regarding the Adequacy of the Motor Vehicle Emissions Budgets for the Metropolitan Washington, DC Area?

The District, Maryland and Virginia submitted revisions to the attainment plan SIP for the Metropolitan Washington, D.C. area on February 16, 14 and 9, 2000, respectively. These revisions contained revised motor vehicle emissions budgets for the attainment year of 2005 with a list of control measures that, when implemented, would be expected to provide sufficient additional emission reductions to ensure nonattainment area emissions in 2005 are equal to or less than the 1999 control strategy levels contained in the attainment demonstrations considering growth. On January 6, 2000, December 22, 1999, and December 28, 1999, the District, Virginia and Maryland, respectively, reaffirmed their existing enforceable commitments. The lists of measures were identified in Tables 6–1 and 6–2 of the February 3, 2000 plan document.

On March 2, 2000, a notice was posted on EPA’s website commencing the comment period on the adequacy of the motor vehicle emissions budgets in these February 2000 SIP revisions for the Washington DC area. That notice also informed the public that the entire revised attainment plan submitted by the District, Maryland and Virginia had been posted by them electronically. EPA’s March 2, 1999 website notice also provided a link to and the address for

the website where interested members of the public could access the attainment plan. EPA's adequacy public comment period closed on April 3, 2000. No public comments were received pursuant to EPA's March 2, 2000 posting. We did receive comments on the adequacy of the budgets pursuant to our December 16, 1999 NPR. The comments relevant to the adequacy determination of these budgets were addressed in a response to comments document portion of the technical support document prepared for the adequacy determination. The finding that the budgets of the revised attainment plan are adequate were made in letters, dated May 31, 2000, from EPA Region III to the Maryland Department of the Environment, Virginia Department of Environmental Quality and the District of Columbia Environmental Regulation Administration. In a June 8, 2000, **Federal Register** notice we announced that we had determined the budgets contained in the February 2000 submissions were adequate (65 FR 36439). These findings were effective on June 23, 2000.

These budgets included the benefits of EPA's Tier 2/sulfur rule. The District, Maryland and Virginia have an acceptable commitment to revise the attainment year motor vehicle emissions budgets using the MOBILE6 model one year after the release of the MOBILE6 model.

I. What SIP Elements Did EPA Need To Take Final Action on Before Full Approval of the Attainment Demonstration Could Be Granted?

In the NPR for the Metropolitan Washington, DC attainment demonstration SIP published on December 16, 1999, EPA noted in Tables 3 through 6 the status of many of the control measures or part D requirements of the Act for serious areas. Not all of these were approved on the date of the NPR. The following provides the status of these SIP elements:

On October 29, 1999, EPA approved Maryland's enhanced vehicle inspection and maintenance SIP (64 FR 58340).

On October 27, 1999, EPA approved the District's Non-CTG VOC RACT rule and rules for Stage II, surface cleaning and degreasing and graphic arts rule (64 FR 57777).

On December 28, 1999, EPA approved Maryland's and Virginia's national low emission vehicle (NLEV) SIPs (64 FR 72564).

On July 20, 2000, EPA approved the District's national low emission vehicle (NLEV) SIP (65 FR 44981).

On July 19, 2000, and October 6, 2000, EPA approved Maryland's and Virginia's, respectively, 15% VOC Reduction Plans (65 FR 44686 and 65 FR 59727, respectively).

On November 3, 1999, EPA approved Virginia's surface cleaning and degreasing rules (64 FR 59635).

Elsewhere in today's **Federal Register** EPA is approving Maryland's new source review regulation for the Metropolitan Washington, D.C. area.

EPA is not crediting the Virginia attainment demonstration or Post-1996 ROP plan for measures from VOC sources subject to the Non-CTG RACT or the expanded point source regulations to 25 TPY measure requirements unless source specific limits are approved into the SIP. One of the source specific rules was approved on January 22, 1999 (64 FR 3425) as well as a category specific rule covering lithographic printing operations on March 12, 1997 (62 FR 11334). The Regional Administrator of EPA Region III has signed a final action approving the remaining source specific RACT rules. That action has been or will be published shortly in the **Federal Register**.

Maryland has a state-wide Non-CTG RACT rule which statutorily had to cover 50 TPY sources in the Washington area and which Maryland lowered the applicability of the Non-CTG rule to 25 TPY. Because EPA has not finished action on all the source specific RACT determinations for other parts of the state, EPA has not fully approved the state-wide Non-CTG RACT rule. However, Maryland has submitted RACT regulations for all relevant sources located in the Washington area,

and EPA has determined that Maryland is not taking credit for any RACT reductions from sources or categories of sources in the attainment demonstration or Post-1996 ROP plan for which there is not a SIP-approved RACT rule. These rules had been approved into the SIP prior to December 16, 1999. These rules covered categories such as structural steel coating, explosives and propellant manufacturing, bakeries, and other categories. Further details are documented in the technical support for this final action.

On December 14, 2000, the Regional Administrator signed a final action approving the District's NO_x RACT rule. That action has been or will be published shortly in the **Federal Register**.

On December 15, 2000, the Regional Administrator signed final actions approving Maryland's and Virginia's NO_x RACT rules. The Virginia final approval also included RACT determinations for Non-CTG major VOC sources. These actions have been or will be published shortly in the **Federal Register**.

On December 15, 2000, EPA approved into the SIP the Maryland's NO_x budget rule consistent with the OTC MOU Phase II (65 FR 78416).

On December 14, 2000, the Regional Administrator signed a final action approving the District's beyond RACT rule for large NO_x sources. That action has been or will be published shortly in the **Federal Register**.

On December 14, 2000, EPA approved into the SIP two Virginia permits that impose a 0.15 pounds of NO_x per million BTU heat input on emissions units at two electric generating facilities in the Washington area (65 FR 78100).

On December 14, 2000, the Regional Administrator signed a final action approving the Maryland's NO_x SIP Call state-wide rule. That action has been or will be published shortly in the **Federal Register**.

J. What Are the Clean Air Act Measures Relied on for the Post-1996 and Attainment Demonstration SIP Submission?

TABLE 3.—CONTROL MEASURES IN THE 1-HOUR OZONE POST-1996 ROP AND ATTAINMENT PLANS FOR THE METROPOLITAN WASHINGTON NONATTAINMENT AREA

Control measure	Type of measure	Credited in post-1996 plan	Credited in attainment plan
Enhanced Inspection & Maintenance	Approved SIP	Yes	Yes.
Federal Motor Vehicle Control program	Federal	Tier 1	Tier 1 and 2.
NLEV	Approved SIP opt-in	Yes ¹	Yes ¹ .
Reformulated Gasoline (Phase 1 & 2)	State opt-in	Phase 1	Phase 2.
Transportation Control Measures (TCM)	Approved SIP	Yes	Yes.
Federal Non-road Gasoline Engine standards	Federal	Yes	Yes.

TABLE 3.—CONTROL MEASURES IN THE 1-HOUR OZONE POST-1996 ROP AND ATTAINMENT PLANS FOR THE METROPOLITAN WASHINGTON NONATTAINMENT AREA—Continued

Control measure	Type of measure	Credited in post-1996 plan	Credited in attainment plan
Federal Non-road Heavy Duty diesel engine standards	Federal	Yes	Yes.
Railroad Locomotive Controls	Federal	No	Yes.
NO _x RACT	Approved SIP	Yes	Yes.
Non-CTG RACT to 50 tpy	Approved SIP	Yes	Yes.
VOC Point Source Regulations to 25 tons/year ²	Approved SIP	Yes	Yes.
Stage II Vapor Recovery ³ & On-board Refueling Vapor Recovery (ORVR)	Approved SIP; Federal	Yes	Yes.
AIM Surface Coatings	Federal	Yes	Yes.
Consumer & commercial products	Federal	Yes	Yes.
Autobody refinishing	Federal	Yes	Yes.
Surface Cleaning/Degreasing	Approved SIP	Yes	Yes.
Open Burning Ban ²	Approved SIP	Yes	Yes.
Stage I Vapor Recovery ⁴	Approved SIP	Yes	Yes.
Graphic Arts	Approved SIP	Yes	Yes.
Heavy Duty Diesel Engines (On-road)	Federal	No	Yes.
Beyond RACT NO _x Requirements on Utilities	Approved SIP	No	Yes.

Notes:

¹ To the extent NLEV not superceded by Tier 2.

² Maryland and Virginia only.

³ Reduction credits calculated for Maryland and Virginia only. The District required implementation of Stage II in 1985 for most sources, and claimed no reductions since 1990. (The District's Stage II regulation was amended after 1990 to comply with the requirements for Stage II controls set forth in the 1990 amendments to the Clean Air Act. EPA has approved the District's rule into the SIP.

⁴ Reductions only in those additional areas in Maryland and Virginia that were added to the Metropolitan Washington D.C. area after 1990.

K. What Are the Conformity Budgets in the Post-1996 ROP Plans and the Attainment Demonstrations?

TABLE 4.—TRANSPORTATION CONFORMITY BUDGETS FOR THE WASHINGTON AREA

	VOC (tons/day)	NO _x (tons/day)
Post-1996 ROP Plan ..	128.5	196.4
One-hour Ozone Attainment Demonstration	101.8	161.8

EPA has concluded that the SIP demonstrates attainment with these budgets and contains the measures necessary to support these budgets.

L. What Happens to the 2005 Budgets When States Change Their Budgets Using the MOBILE6 Model?

All States whose attainment demonstration includes the effects of the Tier 2/sulfur program were required to revise and resubmit their motor vehicle emissions budgets after EPA releases the MOBILE6 model. On March 22, 2000, March 31, 2000, and March 31, 2000, the District, Maryland and Virginia, respectively, submitted a commitment to revise the 2005 motor vehicle budgets in the attainment demonstrations within one year of EPA's release of the MOBILE6 model. If the State fails to meet its commitment to submit revised budgets using the MOBILE6 model, EPA could make a finding of failure to implement the SIP,

which would start a sanctions clock under Clean Air Act section 179.

As we proposed on July 28, 2000, the final approval action we are taking today on the 2005 attainment budgets will be effective for conformity purposes only until revised motor vehicle emissions budgets are submitted and we have found them adequate. In other words, the budgets we are approving today as part of the attainment demonstration will apply for conformity purposes only until there are new, adequate budgets consistent with the States' commitments to revise the budgets. The revised budgets will apply for conformity purposes as soon as we find them adequate.

We are limiting the duration of our approval in this manner because we are only approving the attainment demonstrations and their budgets because the States have committed to revise them. Therefore, once we have confirmed that the revised budgets are adequate, they will be more appropriate than the budgets we are approving for conformity purposes now.

If the revised budgets raise issues about the sufficiency of the attainment demonstration, EPA will work with States on a case-by-case basis. If the revised budgets show that motor vehicle emissions are lower than the budgets we are approving today, a reassessment of the attainment demonstration's analysis will be necessary before reallocating the emission reductions or assigning them to the motor vehicle emissions budget as a safety margin. In other words, the area

must assess how its original attainment demonstration is impacted by using the MOBILE6 model vs. the MOBILE5 model before it reallocates any apparent motor vehicle emission reductions resulting from the use of the MOBILE6 model.

M. What Comments Were Received on the Proposed Approvals and How Has EPA Responded to Those?

EPA received comments from the public on the Notice of Proposed Rulemaking (NPR) published on December 16, 1999 (64 FR 70319) for the Washington area's ozone attainment demonstration and Post-1996 ROP plan. Comments were received from the Robert E. Yuhnke on behalf of Environmental Defense and Natural Resources Defense Council; the Midwest Ozone Group; and from the EarthJustice Legal Defense Fund (EarthJustice), on behalf of the following organizations: Virginia Chapter of the Sierra Club, Audubon Naturalist Society, Chesapeake Bay Foundation, Environmental Defense, Coalition for Smarter Growth, Washington Regional Network for Livable Communities, Piedmont Environmental Council, and Southern Environmental Law Center.

EPA also received comments from the public on the supplemental proposed rulemaking published on July 28, 2000 (65 FR 46383), in which EPA clarified and expanded on two issues relating to the motor vehicle emissions budgets in the attainment demonstration SIPs.

Comments were received from Environmental Defense.

EPA received comments from the public on the supplemental proposed rulemaking published on October 16, 2000 (65 FR 61134) to support the proposed attainment demonstration published on December 16, 1999. In that notice, EPA made available an analysis it had performed to evaluate emission levels of oxides of nitrogen (NO_x) and volatile organic compounds (VOC) and their relationships to the application of current and anticipated control measures expected to be implemented in four serious one-hour ozone nonattainment areas. Comments applicable to the Metropolitan Washington, DC area nonattainment area were received from the EarthJustice.

EPA received additional comments on the District's Post-1996 ROP plans for the Metropolitan Washington, D.C. area from the EarthJustice in response to the September 28, 2000 proposal (65 FR 58243) on the Post-1996 ROP plan submitted by the District, and from the EarthJustice, on behalf of the Maryland and Virginia Chapters of the Sierra Club in response to the October 19, 2000 proposal (65 FR 62658) on the Post-1996 ROP plans submitted by Maryland and Virginia.

A summary of the comments received on this action are provided in section II "Response to Comments".

II. Response to Comments

The following discussion summarizes and responds to the comments received on all of the proposed actions summarized in section I.B. above.

A. Attainment Date Extension Policy

In these responses, EPA addresses both the comments received on this rulemaking and those received in Docket A-98-47 on its notice regarding "Extension of Attainment Dates for Downwind Transport Areas" 64 FR 12221 (March 25, 1999), insofar as here relevant. This includes responses to comments filed by EarthJustice and incorporated by reference in later comments filed on proposed EPA actions on the individual areas. General comments on the policy are considered first. Then specific comments as applied to the area are addressed.

1. Comments Received in Response to March 1999 Notice

Comment 1: EPA does not have the legal authority to extend the attainment deadline for serious areas until hoped-for NO_x reductions occur from upwind states in response to the NO_x SIP Call and/or section 126 actions. Such an

extension is not authorized by any provision of the statute. It is not within EPA's discretion to extend the attainment dates for downwind areas classified as moderate or serious. The Act does not authorize EPA to extend attainment deadlines. Congress provided express attainment deadlines in the Clean Air Act, and EPA is without authority to create exemptions from them. Section 181 provides the only exception to the general rule that areas must meet their attainment dates, and is the exclusive remedy. Section 181(a)(5) allows a one-year extension if the state has complied with all requirements and commitments in the applicable SIP and had no more than one exceedance in the attainment year. In section 181(a)(5), Congress provided other authority for extending attainment dates, but not to address effects of transport. See sections 181(a)(5). Section 181(b)(2)(A) requires reclassification for failure to attain by the attainment date. Section 182 requires submissions of attainment plans by the applicable attainment date. EPA's policy violates these express provisions. The statutory deadlines for attainment, the requirement that SIPs adopt measures adequate to provide for attainment by the statutory deadlines, the statutory limitation on EPA's authority to extend attainment dates under section 181(b), and the procedures to be followed in the event an area fails to attain by the deadline are unequivocal and unambiguous, and compliance is required under step one of Chevron. The extension policy is inconsistent with sections 182(b)(1)(A), 182(c)(2)(A) and 172(c)(1), which require each nonattainment area to provide for attainment and submit SIPs providing for attainment by the applicable deadline. There is no exemption from these mandates for downwind areas that can attain through local reductions, but find it difficult to do so. The EPA policy is also inconsistent with the Phoenix reclassification action, which stated that EPA had no flexibility to provide for attainment date extensions in that circumstance. In section 181(i) Congress refused to give EPA authority to extend attainment dates in light of reclassification.

Response 1: The absence of an express provision in the Clean Air Act for an attainment date extension based on transport does not deprive EPA of the authority to interpret the Act to permit such an extension. Nor do the specific attainment date extension provisions in the statute preclude EPA's interpreting the statute to allow for an extension to account for upwind transport that has

interfered with downwind attainment. This interpretation is necessary to prevent the thwarting of Congressional intent not to unfairly burden downwind areas. In various parts of the statute, Congress expressed an intent to accomplish this through provisions prohibiting transport, but these provisions failed to achieve the Congressional goal in time to allow the downwind areas to meet their originally prescribed attainment dates.

The provisions of section 182 governing reclassification also do not prohibit EPA from interpreting the Act to provide for an attainment date extension based on transport. EPA's policy of extending attainment dates for ozone nonattainment areas affected by transport of ozone and ozone precursors represents a reasonable effort to avoid the frustration of Congressional intent to which a literal application of the reclassification provisions would lead. Where a "literal reading of the statute would actually frustrate the congressional intent supporting it, [a court may uphold] an interpretation of the statute more true to Congress's purpose." *EDF v. EPA*, 82 F.3d 451, 468 (D.C. Cir. 1996).

In 1990, Congress established a classification scheme for ozone nonattainment areas that provided for those areas to be classified on the basis of the severity of their ozone problems and for areas with more serious problems to be given more time to attain, but also required to implement more control measures. As part of these provisions, Congress enacted the reclassification provisions under which ozone nonattainment areas that failed to attain the ozone standard as of their attainment dates were to be reclassified to a higher classification, thereby receiving an extension of their attainment date, but also being subjected to additional control requirements. See section 181(b)(2).

On their face, the reclassification provisions do not provide for any exemption from the reclassification process for areas affected by ozone transport from other States. However, EPA believes that, in light of developments since the enactment of the 1990 Clean Air Act Amendments, a literal application of those provisions to such areas would frustrate broader congressional intent. In this context it is important to recognize that, apart from the ozone reclassification provisions, the Act contains a provision—section 110(a)(2)(D)—that obligates upwind states to prohibit pollution—including ozone and its precursors—from sources within the state that contribute significantly to nonattainment and

maintenance problems in downwind states. Congress was cognizant of the need to control such emissions, and of the inequities between upwind and downwind sources that could result if upwind states did not impose emission controls on their sources that contribute to downwind air quality problems. Congress thus sought to establish a regime that would eliminate such inequities.

The legislative history of the 1977 Clean Air Act Amendments regarding the enactment of section 110(a)(2)(E), the predecessor of section 110(a)(2)(D), and section 126 (a provision that allows EPA to directly regulate sources that significantly contribute to nonattainment in another state) clearly demonstrates this. The Senate Committee Report criticized the lack of effective "interstate abatement procedures" and "interstate enforcement actions" under existing law, which the Committee viewed as "resulting in serious inequities among several States, where one State may have more stringent implementation plan requirements than in another State." S.Rep. No. 95-127 at 41, reprinted in 3 1977 Legis. Hist. 1416. It is reasonable to assume that Congress, when it enacted the ozone reclassification regime in 1990, would have expected that upwind states would have in place implemented SIP provisions that would eliminate significant contributions, as required by section 110(a)(2)(D), by the time downwind areas were obligated to attain the ozone standard. If that had happened, downwind areas that failed to attain by their attainment dates would have failed to attain as a consequence of their own failures to adopt necessary controls, not as a consequence of the failure of other states to adopt and implement controls necessary to eliminate the contribution of their own sources to the downwind area's nonattainment problem.

Such controls were not in place, however, since, as explained in EPA's transport policy, it in fact took many years for EPA and the States to gain a sufficient understanding of the interstate ozone transport problem to determine the appropriate division of control responsibilities between the upwind and downwind States under the Clean Air Act. It was only through the work of the Ozone Transport Assessment Group (OTAG), which consisted of members from states, industry and environmental groups, and EPA's subsequent NO_x SIP Call, promulgated in October, 1998, that the division of responsibilities among the states was established. Consequently,

the fruits of those efforts—the implementation of the control measures in upwind states that were needed to eliminate the significant contribution of sources in those states—would not ripen until 2003 or 2004, years after the statutory attainment dates for areas such as Springfield, MA. Moreover, because the allocation of responsibility for transport was not made until late 1998, the prohibitions on upwind contributions under section 110(a)(2)(D) and section 126 could not be enforced prior to the attainment dates of areas such as Washington, DC, Greater Connecticut and Springfield, MA. Nor could Congress intend that the upwind areas with later attainment dates accelerate the timetables provided for their own attainment as an indirect means of controlling transported pollution in the absence of data on transport impacts.

To apply the reclassification provision of section 181(b) without taking into account the timing of the identification and implementation of the emission reductions needed to eliminate the significant contribution of the upwind states to the downwind states would lead to the result that the downwind states' sources are required to implement potentially costly control measures to offset the effects of upwind state pollution—pollution that EPA has now determined must be prohibited under the Act and pollution that will soon be eliminated as a result of the NO_x SIP Call and by emissions reductions in upwind states with later attainment dates. Imposing on downwind areas the burden of controlling for pollution attributable to upwind sources would compound the inequities that Congress was seeking to avoid with the enactment of sections 110(a)(2)(D) and 126, thereby frustrating Congressional intent. Moreover, such a result would be at odds with the kind of concerns that led Congress to adopt section 179B for international border areas—concerns that areas not be held accountable for pollution over which they exercise no control.

Section 181(b)(2) provides that EPA should determine whether an area attained the standard "within six months following the applicable attainment date (including any extension thereof)." This reference to extensions in section 181(b)(2) is not limited to extensions granted under section 181(a)(5). Nor does section 181(a)(5) state that Congress intended it to be the only source for an extension.

Moreover, section 181(a)(5) addresses only one specific type of an extension. The fact that Congress provided an extension based on air quality that is

near attainment at the time of its deadline does not imply that Congress precluded the Administrator from conferring extensions based on other considerations—such as the case when air quality is affected by downwind transport. The principle underlying section 181(a)(5)—that areas should not be reclassified if they have done enough to control local air pollution but are still not able to attain—also applies in the case of downwind transport. Section 181(a)(5) shows that Congress was not unalterably opposed to extensions of attainment dates without requiring an area to be subjected to reclassification and the increased control burdens that go with reclassifications. Indeed, section 181(a)(5) indicates that Congress wanted to extend attainment dates without adding control obligations when an area had done what was apparently sufficient to bring it into attainment.

The United States Court of Appeals for the District of Columbia Circuit has previously held that EPA may extend SIP submission deadlines even without explicit statutory authorization. In *Natural Resources Defense Council, Inc. versus EPA*, 22 F.3d 1125, 1135-36, the Court upheld EPA's extension of a statutory deadline for submission of NO_x rules and a NO_x exemption request under section 182(f). Although the Court did not use the theory advanced by EPA, the court did find that the Agency had authority under the CAA to extend the deadline. EPA had found that additional time would be needed for States to conduct photochemical grid modeling in order to document the effects of NO_x reductions on an area. EPA had found that "the time needed to establish and implement a modeling protocol and to interpret the model results will, in a variety of cases, extend beyond the November 15, 1992 deadline for submission of NO_x rules." EPA thus extended the submission deadline, provided the states could show that modeling was not available or did not consider effects of NO_x reductions and that the states submit progress reports on the modeling. The DC Circuit upheld EPA's extension of the deadline and of EPA's time to review the submissions and make an exemption determination. The Court found that "because only a single NO_x RACT submission is required under the statute, it is logical to infer that Congress intended data supporting exemptions to be included in that submittal and that the EPA have the full 14-18 months to review them and to make an exemption determination." Even in the absence of explicit statutory authority, the Court held that "had Congress foreseen the

exemption timing problem, a matter outside the EPA's control, it would have elected to accord the EPA the full statutory review time." 22 F.3d at 1136. The court ruled that "under the circumstances here the NO_x RACT deadlines were properly extended to further the Clean Air Act's purposes." *Id.* At 1137."

Here, similarly, EPA's and the states' inability, until the OTAG and NO_x SIP Call process was completed, to document the impacts of upwind areas on the attainment status of downwind areas, and to assess and allocate responsibilities among the areas, caused a delay in meeting the attainment deadlines. EPA believes that, had Congress foreseen this timing problem, it would have elected to accord the states and EPA more time to meet the attainment deadlines without imposing reclassification requirements on downwind areas. As in the case of the delayed photochemical grid modeling needed for the NO_x submissions at issue in *NRDC versus EPA*, EPA has shown that the ability to document and analyze ozone transport was delayed. And as with the criteria imposed on areas seeking NO_x submission extensions in *NRDC*, EPA has required analogous showings by the states, limiting the extensions to those areas that document a transport problem and that submit attainment demonstrations and adopt local measures to address the pollution that is within local control.

As for Section 182(i), it has no bearing on the authority of the Administrator with respect to the attainment date extensions at issue here. Section 182(i) applies to the authority of the Administrator *after* an area has been reclassified, and relates to the setting of an attainment date for the reclassified area. It does not apply to an area that is not being reclassified, but rather is being granted an extension of its attainment date that effectively defers the applicability of the reclassification provisions. Here, EPA is authorizing an attainment date extension to relieve an area from reclassification requirements, and thus 182(i) does not apply. The section explicitly applies to an area that has already been reclassified, and indicates nothing about the authority of the Administrator to extend an area's attainment date prior to a determination that the area must be reclassified. Nor does section 182(i) indicate Congressional intent to deny EPA authority to interpret the Act consistently with provisions designed to prevent downwind areas from being forced to compensate for upwind pollution.

Comment 2: The Act does not authorize EPA to extend the time for implementation of adopted local control measures. EPA's approach allows downwind areas to defer implementation of local measures until the extended attainment deadline, thereby precluding any determination that the local measures have achieved the degree of emission reduction necessary to provide for attainment when the upwind sources are controlled. EPA unlawfully proposes to allow attainment date extensions for downwind areas to implement local control measures. Under sections 182(b)(1), 182(c)(2)(A), and 172(c)(1), downwind areas must provide for attainment of the NAAQS, and EPA unlawfully seeks to lessen these statutory obligations.

Response 2: As explained in Response 1, above, EPA's attainment date extension policy aims to effectuate, not frustrate the intent of Congress, by providing for an equitable allocation of responsibilities between upwind and downwind areas. Under EPA's interpretation, when an upwind area interferes with a downwind area's ability timely to attain the standard, the downwind area retains the obligation to adopt all applicable local measures, and to implement them as expeditiously as practicable, but no later than the date by which the upwind reductions needed for attainment will be achieved. Moreover, EPA requires that the area submit an approvable attainment demonstration containing any necessary, adopted local measures and showing that, assuming the appropriate upwind emission reductions, the area will attain the 1-hour standard no later than the final NO_x SIP Call and/or the upwind area's attainment date. Thus both the upwind and downwind areas are held accountable for their respective shares of the emissions reductions required to achieve attainment in the area. EPA views this coordination of the responsibilities of the upwind and downwind areas not as a lessening of the statutory obligations, but as a reconciliation of them with the reality of air transport as we have come to understand it, and with the intent of Congress that areas make expeditious progress towards attainment without sacrificing basic principles of fairness. The attainment date extension policy thus will still lead to attainment as expeditiously as practicable, taking into account the upwind contribution. Indeed, given the impact of upwind areas' contributions and the need for upwind area emissions reductions, requiring local contributions earlier

would not accelerate attainment, considering that EPA is requiring downwind areas to implement local controls as expeditiously as practicable. Moreover, the difficulty of assessing relative contributions and responsibilities of upwind and downwind areas until the completion of the OTAG effort and the NO_x SIP Call lends support to extending attainment deadlines in these circumstances, even without express statutory permission. See *NRDC versus EPA*, discussed supra, in Response to Comment 1.

Comment 3: Reclassification alone has no immediate or mandated regulatory consequence. A SIP revision can consist of a showing that attainment will result from implementation of emission reductions already required pursuant to the SIP Call. EPA's Extension Policy is inconsistent with Clean Air Act sections 179 (c) and (d). This provision does not require additional local control measures beyond those previously approved implemented by the State if adequate control measures have been adopted for upwind areas and are in the process of being implemented.

Response 3: Reclassification does impose regulatory consequences. Section 182(i) requires that "each state containing an ozone nonattainment area reclassified under section 181(b)(2) shall meet the requirements of subsections (b) through (d) of this section as may be applicable to the area as reclassified." Thus the area must meet the more stringent requirements of a higher classification, including new source review offsets and changes in cutoffs for permitting. The provisions of section 181(b) apply to reclassification of ozone areas. Sections 179 (c) and (d) do not apply to ozone areas that are classified as marginal, moderate, or serious, which are subject to the requirements of section 181, if EPA determines that they failed to attain the ozone standard as of the applicable attainment date pursuant to that section.

Comment 4: Sections 176 and 184 of the Act do not support EPA's extension policy. Congress left no room in the statute for attainment date extensions for downwind areas, considering instead the additional recommended OTC control measures for upwind areas to be sufficient. Sections 110(a)(2)(D)(i)(1) and 110(a)(2)(A) do not authorize the EPA policy. Section 110(a)(2)(D) imposes a burden only on upwind states and does not relieve downwind states of their obligation to attain by the pre-set attainment dates. EPA lacks the authority to rewrite the extension authority Congress wrote into sections 181 (a)(4) and (b)(3). Congress was well aware of the transport problem

and addressed it in explicit provisions, including section 110(a)(2)(D), section 110(a)(2)(A), section 184, section 176A, section 126, section 182(h), and section 181(a)(4). Thus Congress knew how to address pollutant transport and how to draft an attainment date extension addressed to it when it wished to do so. It also provided for voluntary reclassification under section 181(b)(3) to be available for downwind areas that are affected by transport. Congress dealt with transport explicitly in sections 181(a)(4), 182(h) and 182(j)(2). Congress knew how to exempt transport-affected areas from control requirements if it wanted to, as it did for rural transport areas under section 182(h). Congress limited relief for areas subject to transport to exemption from sanctions, but did not extend this to section 110(c) FIPs. H.R. 101-490, at 248. This shows Congress' intent to apply all of the Act's enforcement tools except for sanctions under section 179. Congress considered the effects of transport, but not in the reclassification context. Congress did provide for attainment date extensions, but not in this context.

Response 4: Having crafted provisions in the 1990 Amendments that it believed would be adequate to address the problem of downwind nonattainment, Congress did not expressly provide for an attainment date extension based on transport. But the absence of such a provision does not prevent EPA from inferring that Congress would have intended to provide such relief should the express provisions fail to function as envisioned. In fact, the manner in which Congress did address the issue of transport shows that EPA's interpretation is consistent with Congress' approach in other sections of the Act. EPA's interpretation resolves the problem that arose when the express statutory tools failed to function as Congress had envisioned. It also, as EPA pointed out in its guidance, 61 FR 14441 (March 25, 1999), provide a means to reconcile the attainment demonstrations and attainment date requirements for downwind areas with the graduated attainment date scheme and schedule for achieving reductions in the upwind areas. Although Congress intended that upwind areas be responsible for preventing interference with downwind areas' attainment dates, it also expressly allotted more time for certain upwind areas to reduce their emissions so as to attain the standard.

Sections 110(a)(2)(D), 126, 184 and 176, provide principles for dealing with transport, most importantly the principle that upwind areas be held accountable for reducing emissions that

interfere with the ability of downwind areas to attain the ozone standard. EPA disagrees with commenters that Congress intended section 110(a)(2)(D) and the other transport provisions to exclude the possibility of relief for downwind areas even if no timely and adequate recourse against transport was in fact available to them. These sections express Congressional intent that downwind states not be saddled with responsibility for pollution beyond their control. Their premise was that there would be a means of redress against upwind states prior to the downwind area's attainment date—a means that also would not be at odds with Congress' decision to provide longer attainment periods for upwind areas confronting onerous pollution problems. But, as EPA pointed out in its guidance, there was in fact no practicable way to carry out the Congressional scheme until a much more comprehensive understanding of the complex facts of ozone transport could be achieved.

Although Congress in the 1990 Amendments and in prior versions of the Clean Air Act attempted to deal with the issue of transport, the reality of the problem proved far more complicated and intractable than expected. As explained in EPA's guidance, 64 FR 14441 (March 25, 1999), it took many years for EPA and the states to study, analyze, and attempt to resolve the allocation of responsibility for transported ozone pollution. EPA's initial efforts included a policy memorandum addressing the issue of overwhelming transport in 1994. The Ozone Transport Assessment Group was launched in 1995. Through this collaborative process, EPA, 37 states and industry and environmental groups tackled the problem of allocating responsibility for transport in its Overwhelming Transport Policy. During the period required for this effort, the resolution of regional transport issues was held in abeyance. It was not until late in 1998 that the conclusion of the OTAG and SIP Call processes resulted in assignments of responsibility that could assist in the design of SIPs and the formation and implementation of attainment demonstrations. 63 FR 57356 (Oct 27, 1998) (NO_x SIP Call Rule). In May 1999, these efforts were reinforced when EPA approved petition submitted under Clean Air Act section 126 by northeast states to mandate federal controls on utilities and other large NO_x emitters in upwind States. 64 FR 28250 (May 27, 1999) (Section 126 Rule). A more detailed description of the history of efforts to address ozone transport through the 1990's may be found in the

preambles to these rulemakings. 63 FR 57360–63, 64 FR 28253–54.

Even after the NO_x SIP Call rulemaking was complete, it was temporarily placed in doubt when the Court stayed the SIP Call rule pending judicial review. The court has ordered NO_x SIP Call SIPs to be submitted by October 30, 2000, and to require sources to implement controls by May 31, 2004.

Thus, although Congress in the Clean Air Act had formulated a prohibition on transport interfering with downwind attainment, it remained largely theoretical until EPA and the states could understand how to identify, quantify, and analyze the transport of emissions, and develop regulatory means to coordinate the respective responsibilities of a multitude of upwind and downwind areas. Although Congress endowed EPA and the states with legal tools to protect downwind areas from interference with attainment, it did not give them the ability to use the tools in the time frame anticipated by Congress. By the time EPA and the states gained an understanding of regional transport sufficient to allow enforcement of the provisions of the Act, it was too late to help some downwind areas meet their attainment dates. Thus it is spurious to argue that EPA and the States could have sought and obtained meaningful relief earlier under section 126 and section 110.

The fact that upwind states are subject to the requirements of section 110(a)(2)(D) but other countries are not provides a possible explanation as to why Congress explicitly provided that ozone nonattainment areas not be reclassified upwards if they would have attained by their attainment dates "but for emissions emanating from outside" the United States (section 179B(b)) but provided no such express exemption from the reclassification provisions in the case of domestic transport. See IV 1990 Legis. Hist. 5741–42 (remarks of Sen. Gramm introducing the international provision and Sen. Baucus supporting it; Senator Gramm stated: "It is unfair to hold El Paso accountable for pollution that is generated in a foreign country that they have no control over. So what this amendment does it says that in assessing whether or not the State implementation plan has been met, and when assessing the levels of ozone * * * pollution that is being generated across the border has to be taken into account so that our cities and regions will be judged based on what they do. * * * [The State, region and city] will have the opportunity to come to EPA and say that they are in compliance in terms of their emissions, that their failure to meet the overall

standards is due to something that is happening in a sovereign foreign country over which they exercise no control." Senator Baucus stated that, "It is clear that cities like El Paso in the State of Texas do not have control of their own destiny themselves. Much of the air that affects them is from outside, from another country, over which the Senator said the State of Texas and EPA in this country has virtually no control." Congress assumed that EPA would have control over domestic transport under section 110(a)(2)(D), so it saw no need to enact a domestic counterpart to section 179B. As set forth in EPA's responses and the history of EPA and the states' efforts to understand and control transport, Congress' assumptions were not realized.

As set forth in Response 1 above, Congress intended, through enactment of the provisions addressing transport cited by commenters, to prevent downwind areas from being held accountable for pollution over which they exercise no control. Because of the complexity of the transport problem, EPA and the states could not deploy these statutory provisions in time to achieve attainment by their original attainment dates. But this does not mean that Congress would have intended EPA to construe the very provisions designed to protect downwind areas as precluding EPA from interpreting the statute to provide the relief that those provisions failed to furnish. Notwithstanding the absence of an express provision for an attainment date extension based on transport, EPA believes that, taking into account the Act read as a whole, Congressional intent supports EPA's interpretation of an attainment date extension in the circumstances presented here.

Commenters argue that the fact that Congress formulated various provisions addressing certain specific types of issues concerning transported pollution, but did not provide for an explicit attainment date extension based on transport, should be taken as proof that Congress meant to preclude such relief. But each of the provisions cited by commenters—to sections 181(a)(4), 182(h) and 182(j)(2)—was designed to address a different problem from the one EPA addresses here, and none undermines EPA's interpretation that Congress intended to provide relief in the situations currently confronted by downwind areas. As shown in EPA's previous responses, Congress expressed its intent in the transport sections to protect downwind areas from the burdens of transported pollution, but the mechanisms it provided could not be invoked in time.

As for the sections referenced by commenters, Section 181(a)(4) concerns the potential for adjustment of the original classification of an area if its design value is within a certain margin. It allows the Administrator to consider a number of factors, including among them transport. This provision in no way casts doubt on the Congressional intent not to penalize downwind areas through mandatory reclassification should they later fail to attain the standard due to transport. Section 182(h) provides a mechanism for original classifications of rural transport areas as marginal areas, the lowest level of ozone nonattainment areas. Far from indicating that Congress did not intend relief for areas that are victims of transport, this provision reflects Congressional concern with not burdening areas with responsibility for transport not of their making. It sheds no light on whether Congress would have intended EPA to reclassify areas suffering from transported pollution if they were subsequently unable to meet their attainment dates.

Nor, as commenters suggest, would so-called "voluntary" reclassification under section 181(b)(3) furnish an adequate remedy for the situation confronting areas that fail to attain due to interference from transport. An area that felt constrained to seek "voluntary" reclassification would still be forced to subject itself to more stringent requirements to control local pollution in lieu of imposing on upwind areas the responsibility for the transport they caused.

Comment 5: The states had power to timely submit SIPs controlling local pollution to the full extent that it was in the state's power to require, and combine it with a request to EPA to invoke EPA's authority to control upwind pollution, and in this way the state could have attained by the applicable deadline. EPA's 1994 overwhelming transport policy required transport modeling to be documented the same time as the attainment demonstration due in 1994. There is no justification for allowing states to request attainment date extensions based on transport of which they were aware many years ago. An opening is created for upwind states to argue that the NO_x SIP Call effectively accelerates their attainment dates. The OTC was to recommend measures to bring about attainment by the deadlines "in this subpart."

Response 5: As pointed out in EPA's Response 4, above, an awareness that transport was occurring is not equivalent to an ability to identify, analyze, and control the emissions that

cause it. This ability, which grew out of years of study and joint effort, did not coalesce until late in 1998. Thus, downwind states were faced with the prospect of having to shoulder responsibility for pollution not of their making—a responsibility that Congress did not intend to impose on them, even as they were aware of an ongoing effort, involving EPA and thirty-seven states, to allocate responsibilities for transport through the OTAG process. As EPA stated in its guidance on the attainment date extension, the state of knowledge about and the ability to document and model transport has advanced considerably since the issuance of EPA's overwhelming transport guidance. The commenters seek to ignore the climate of uncertainty in which states and EPA were operating with respect to controlling transported pollution. Section 110(a)(2)(D) and 126 are not self-executing, and until the culmination of the OTAG process, downwind areas in the OTAG region could not determine what boundary conditions they should assume in preparing attainment demonstrations and determining the sufficiency of local controls to bring about attainment. Meaningful relief under these provisions simply was not available earlier.

But even with the allocation of responsibilities now available, EPA believes that Congress did not intend to accelerate the obligations of upwind states so that downwind states can meet earlier attainment dates. This would undermine the objective, firmly embodied in the graduated attainment framework of the Clean Air Act, to allow upwind areas with more severe pollution longer attainment deadlines. Upwind areas with later attainment dates still find it difficult to reduce emissions solely to control for transport without accelerating the time frames intended by Congress. It is unrealistic to expect upwind areas to be able to segregate out the reduction of emissions for purposes of transport from the reduction of emissions for purposes of achieving attainment in the upwind area.

The fact, as a commenter points out, that Congress envisioned that the OTC-recommended measures would bring about attainment by the dates "in this subpart" reflects Congress' over optimistic view that transport would be understood and controlled in time to allow upwind areas to be held accountable for their contributions to downwind nonattainment. The comment underscores that Congress expected upwind reductions to take place by the time the downwind area

was supposed to attain—this confirms that Congress expected that upwind pollution would be controlled prior to downwind attainment deadlines, and that only local pollution would remain as the downwind area's responsibility. But, as we previously stated, the time line for analyzing and assessing transport, and the resulting ability to implement appropriate measures to control upwind pollution, did not keep pace with Congress's expectations. EPA is extending attainment deadlines in order to allow upwind areas to assume responsibility for the pollution they generate and that is transported across State boundaries, and to fulfill the Congressional intent that downwind areas not be saddled with this burden.

Comment 6: EPA's decision directly conflicts with *NRDC v. EPA*, 22 F.3d 1125 (D.C. Cir. 1994), where the Court held that EPA could not extend a clear statutory submission deadline.

Response 6: To the contrary, EPA believes that *NRDC v. EPA* supports EPA's authority to issue the attainment date extensions at issue here. In that case the U.S. Court of Appeals for the DC Circuit upheld EPA's extension of SIP submittal deadlines even though such extensions were not expressly permitted by the Clean Air Act. See the discussion in Response to Comment 1, above. The Court relied in part on the need for additional time to undertake photochemical modeling to document the impact of NO_x reductions on individual areas, an effort that took more time than Congress anticipated. Here, the effort to document, model, and analyze regional ozone transport issues and assess responsibility for relative contributions is, if anything, more complex than the NO_x exemption showings for which the Court upheld deadline extensions in *NRDC v. EPA*. The Court's reasoning in *NRDC v. EPA* should be fully applicable to the policy at stake here.

Comment 7: A commenter concedes that "EPA's delay in establishing the mandatory emission reduction targets for upwind States might justify the delay in adoption of adequate section 110(a)(2)(D) measures by the upwind states," but concludes that the delay "cannot justify delaying the obligation of downwind States to implement all the local measures necessary for attainment by the statutory deadline." One commenter, while acknowledging that it "does not take issue with EPA's objective of accommodating the delayed control contributions from upwind areas," contests EPA's claim of authority to extend attainment dates. This commenter suggests that the appropriate remedy is for EPA to authorize states to

take credit for mandated emission reductions when preparing attainment demonstrations and determining the degree of local controls needed to attain.

Response 7: While the commenter recognizes that there was a delay in understanding and regulating transported pollution that "might justify the delay" in upwind states adopting section 110(a)(2)(D) measures, and agrees with EPA's objective in taking this delay into account, the commenter's proposed solution fails to address the problem it acknowledges. The commenter suggests allowing areas to take credit when they prepare their attainment demonstrations—but this solution addresses only the planning requirement, and does not assist the areas in solving the problem of failing to meet their attainment deadline. It is to address this issue, and to effectuate Congressional intent to avoid penalizing downwind areas in these circumstances, that EPA has formulated the attainment date extension. The delay in ascertaining the amount and achieving the reality of upwind reductions—a delay conceded by commenters—resulted in uncertainty in a downwind area's ability not only to plan for attainment, but to realize it.

This comment also highlights the difficulties that EPA's attainment date extension policy was designed to address: namely that the states and EPA were (1) not able to assess relative contributions until it was too late to implement the controls to bring about attainment; and (2) upwind areas with longer attainment dates should not be required to accelerate their reductions in time to help bring about attainment as scheduled in affected downwind areas with earlier attainment dates. As the policy explains, the determination of relative upwind and downwind contributions and the allocation of responsibility for determining controls did not occur in time for a number of areas to meet their attainment deadlines.

Comment 8: EPA's approach allows emission reductions from motor vehicles to be deferred beyond the deadlines currently required by the Act. The policy allows deferral of conformity budgets beyond the statutory attainment year. It is also inconsistent with statutory requirements for reasonable further progress in section 182(c)(2)(B), for implementation of all reasonably available control measures as expeditiously as practicable in section 172(c)(1), and for requiring that transportation plans and TIPs "will not delay timely attainment of any standard or ... other milestones in any area in section 176(c)(1)."

Response 8: EPA disagrees with the commenter that the policy allows deferral of motor vehicle emission reductions and reasonably available control measures beyond dates contemplated in the Act. The statute requires SIPs to provide for attainment as expeditiously as practicable and for reasonable further progress as necessary to provide for attainment. The motor vehicle and RACM measures the commenter is apparently referring to are not specific measures that the statute requires to be implemented by a fixed date. Rather, they are whatever motor vehicle and RACM measures are necessary to provide for attainment and RFP by the applicable attainment date. Thus, whatever attainment date is applicable, either by virtue of the statute or an attainment date extension, defines the outside date by which motor vehicle and RACM measures necessary to provide for timely attainment must be implemented. A determination must then be made whether any additional measures could advance that date, but the analysis is keyed to the established attainment date. The commenter also complains about delays in establishing budgets for conformity purposes, and requirements that transportation activities not delay timely attainment. Again, these issues are not relevant to establishing an appropriate attainment date. Motor vehicle emission budgets for conformity purposes are those budgets that are established for the attainment year. The Act does not require that these budgets be set for any specific year, but rather contemplates that they will be established for the attainment year. Where EPA has properly determined that an attainment date extension should be granted, conformity budgets are required for the extended attainment year; they are no longer required for the superseded attainment year. The requirement that transportation activities not delay timely attainment is a duty imposed on transportation planning agencies to insure that their activities will not interfere with attainment of the standard by the applicable attainment date. This duty is irrelevant to establishing the appropriate attainment date in the first instance. Once an applicable attainment date is established, transportation planners must insure that their activities will not delay attainment by that date.

Comment 9: A commenter argues that under the terms of section 188(e), an extension of the PM attainment date may not be granted unless the State demonstrates that the area's SIP contains "the most stringent measures that are included in the implementation

plan of any State or are achieved in practice in any State, and can feasibly be implemented in the area." Moreover, section 188(e) provides for consideration of transboundary emissions from "foreign countries," not from U.S. sources. EPA's proposed ozone nonattainment extension policy includes neither of these limitations.

Response 9: The provision cited by commenters applies the PM-10 standard, and is not applicable to attainment dates for ozone. Moreover, the regulatory regimes applicable to ozone and PM-10 are quite different, as are the types of transport issues that arise with respect to these two different pollutants. The issues EPA and the states confront with respect to long-range regional transport of ozone do not apply to PM-10. Beyond that, section 188(e) embodies a standard of "impracticability" as a basis for seeking an extension for a PM-10 attainment deadline. With respect to the ozone attainment deadlines at issue here, EPA is not granting extensions solely on the grounds of impracticability of attaining the standard, but rather, that Congress intended both upwind and downwind areas to have an opportunity to bear the responsibility for their respective contributions to an area's attainment problems.

Comment 10: EPA's effort to "manufacture a conflict" between the statutory deadlines and transport provisions fails, since these provisions must be read together so that the upwind area's "obligation to control pollution affecting the downwind area—be it interstate or intrastate—falls due no later than the downwind area's attainment date." EPA's argument that areas with longer attainment dates be given additional time ignores the statutory requirement that areas attain as expeditiously as practicable, even if that results in attainment before section 181(a)(1)'s outer deadlines. The section 181 attainment deadlines are "outside limits." A commenter argues that Section 181(a) does not prevent upwind areas from abating pollution in downwind areas in time to meet the downwind area's attainment date. EPA's policy cannot be defended as necessary to reconcile 181(a) with the Act's anti-transport provisions. Upwind areas should be able to control pollution contributing to downwind area's nonattainment even before reaching their own later-prescribed attainment dates.

A commenter disputes EPA's interpretation of the language in section 110(a)(2)(D)(1) that SIP provisions prohibiting emissions which cause transport be "consistent with the

provisions of this subchapter." EPA should interpret the provisions to respect the attainment schedules of sections 181 and 182, and address transport separately. No reference is made to any legislative history that would legitimize EPA's reading. An upwind area's obligation to control transported pollution does not depend on its own timetable for attainment. EPA's policy excuses upwind area's responsibility from their obligations under sections 110, 176A and 184, exempting them via granting extensions to downwind areas. The policy defers downwind action until the upwind area attains.

EPA improperly assumes that it would not be practicable for upwind sources to reduce emissions contributing to downwind nonattainment prior to the time such reductions would be required to attain in the upwind area. The presumption should be precisely the opposite: unless the upwind state can show that such reductions are impracticable, EPA should assume such reductions can be made at times to eliminate the upwind state's contribution to nonattainment downwind by the downwind area's attainment date. EPA's rule eliminates the Act's requirement that attainment be accomplished as expeditiously as possible. Section 184 indicates Congressional intent that upwind areas make reductions if necessary to permit downwind areas to attain by their statutory deadlines.

Response 10: EPA disagrees with the commenter's contention that it has "manufactured a conflict." Rather, EPA believes that it recognizes and resolves the real tension between the statutory deadlines and the transport provisions. EPA explained this tension in its guidance on the attainment date extension policy. See also EPA's response to Comment 4. Congress did not intend that areas with more severe pollution problems, and accordingly longer attainment dates, be forced to accelerate reductions on a timetable that otherwise would not be deemed to be required in order to meet their obligation to attain "as expeditiously as practicable." Commenters want EPA to read the requirement for upwind areas, not as containing the limitation that their attainment deadline be "as expeditiously as practicable"—but instead, to require deadlines that are not practicable solely for the purpose of obtaining downwind reductions.

In dealing with ozone, a regional pollutant, an upwind nonattainment area cannot make reductions for transport purposes without affecting its schedule for making reductions for

attainment purposes. Compelling the upwind area to make drastically faster reductions is akin to asking it to go on a crash diet. But the interplay of the statutory provisions on attainment deadlines and transport reduction indicates that Congress intended upwind areas to reduce transport, but not to the extent of requiring shorter schedules for upwind attainment.

Separating out reductions for purposes of attainment and those for the purposes of transport is more difficult than commenters depict, and EPA believes that Congress did not intend a regimen of drastic reductions without regard to the upwind area's attainment schedule. In reality, an upwind area that remains in nonattainment may doubtless be shown to continue to transport pollution to an affected downwind area.

Congress provided statutory tools to address the issue of transport (including sections 184, 126, and 110(a)(2)(d)), and believed that they would be used to reach an accommodation among upwind and downwind areas—but as EPA and some commenters have recognized, this accommodation took longer than anticipated. Congress did not, however, intend that upwind areas be forced to apply draconian measures in order to allow the downwind areas to meet their shorter attainment periods.

And although the attainment deadlines can be looked at as "outside limits," they in fact represent the dates at which statutory consequences must be considered. As long as no earlier date is deemed to be "as expeditiously as practicable," there is no evidence that Congress considered an earlier date to be acceptable for these areas, regardless of "practicability." Even if earlier deadlines would be beneficial to downwind areas, Congress did not indicate that this criterion should override the criterion of "practicability" for the upwind area.

In administering the Clean Air Act and the NO_x SIP Call, EPA has interpreted section 110(a)(2)(d)'s significant contribution test as requiring reductions as expeditiously as practicable without requiring upwind areas to impose draconian measures. The United States Court of Appeals for the District of Columbia Circuit recently upheld EPA's use of a cost component in applying that section's significant contribution test. *Michigan v. EPA*, 213 F.3d 663, 674–679 (D.C. Cir 2000). EPA decided that the states that were "significant contributors" under section 110(a)(2)(D) need only reduce their emissions by the amount achievable with "highly cost-effective controls." 63 Fed. Reg. At 57,403. "Thus, once a state

had been nominally marked a "significant contributor," it could satisfy the statute, *i.e.*, reduce its contribution to a point where it would not be 'significant' within the meaning of section 110(a)(2)(D)(i)(I) by cutting back the amount that could be eliminated with 'highly cost-effective controls.'" 213 F.3d at 675.

In applying section 110(a)(2)(D), the D.C. Circuit concluded that EPA can consider not only air quality impacts, but also costs of control. Thus EPA has been upheld in interpreting the Act in a way that limits the upwind area's responsibility to control pollution so as to mitigate its responsibility under section 110(a)(2)(D). The upwind area should not have to impose draconian controls. As the Court in *Michigan v. EPA*, 213 F.3d 663, 674-679 (D.C. Cir. 2000) concluded, "there is nothing in the text, structure, or history of section 110(a)(2)(D) that bars EPA from considering cost in its application." 213 F.3d 679. The Court's discussion makes clear that EPA, in interpreting the responsibilities of upwind states under section 110(a)(2)(D), may consider differences in cutback costs in determining what constitutes a significant contribution, and that EPA's inquiry is based on balancing a number of considerations to balance health effects and cost-effectiveness.

EPA's policy does not excuse the upwind areas from fulfilling their obligations under section 110. Upwind areas will be held to section 110 and RACM requirements. EPA has determined the upwind areas' section 110 obligations through the SIP call. The SIP call requires reductions by the date EPA determined was as soon as practicable to eliminate significant contributions to downwind areas.^{1,2} This is coupled with the upwind area's obligation to attain as expeditiously as practicable. It is appropriate to hold downwind areas to the upwind area's attainment date as an outside limit until EPA acts on the upwind area's attainment demonstration. The modeling evidence we have now shows that upwind areas need to come into attainment for the downwind areas of Metropolitan Washington, DC and Greater Connecticut to attain the standard.

Comment 11: The section 182(j)(2) "but for" standard applies to intrastate transport. An area must demonstrate that it would have accomplished attainment but for the failure of other

areas to implement sufficient controls. The policy is vague, and fails to establish clear standards for a showing of transport. The "affected by transport" standard is unclear.

Response 11: EPA is not constrained by the section 182(j)(2) standard. This section is limited in application to single nonattainment areas that are located in more than one state, and does not address transport coming into an area from another, separate area. Our determinations in the SIP call were clear, and the modeling that resulted from the SIP call effort showed that there were significant impacts from upwind areas on the downwind areas, no matter whether one used as a standard the "but for," "significant contribution" or "affected by transport" formulation. Congress intended that an upwind area that significantly contributes to a downwind area's nonattainment problem should bear responsibility for that pollution. The modeling shows that significant contributions are made by the upwind areas to the downwind areas seeking attainment date extensions. EPA still believes that Congress would not have intended to impose the burden on downwind areas for an upwind area's contribution.

Comment 12: Transport is already incorporated into each area's section 181 design value and thus is assumed in setting the projected attainment date. Congress understood transport resulted in elevated design values, but did not authorize classifications to take into account transport, and provided for reclassification by operation of law based on air quality. In section 181(a)(1), Congress directed that ozone nonattainment areas be placed within certain classifications based solely on their design values, regardless of transport. Congress understood that many areas were classified as moderate or severe at least in part because of ozone transport, but did not grant EPA discretion to take such transport into account when establishing initial classifications under the Act. Why does EPA believe so strongly that its approach is consistent with congressional intent, given congress's refusal to consider transport in establishing the initial classifications and in light of sections 181(b)(2) and 182(i)?

Response 12: The fact that the provisions governing the initial classification process expressly take transport into account in a specific way—see section 181(a)(4)—does not mean that EPA is precluded from taking transport into account when providing for an attainment date extension based

on transport, prior to invoking the reclassification provisions. See EPA's Response to Comment 1. By providing for an extension of the attainment date, EPA is effectuating Congressional intent that the transport relief provisions have a chance to take effect before EPA has an obligation to determine whether the area has attained for purposes of triggering the reclassification provisions.

Comment 13: EPA has previously concluded that reclassification is not a means of penalizing an area, but a means of providing additional reductions that will benefit public health. EPA rejected the notion that bump-up is a penalty when it reclassified the Phoenix, Arizona area from moderate to serious. There, EPA said:

The classification structure of the Act is a clear statement of Congress's belief that the later attainment deadlines afforded higher-classified and reclassified areas require compensating increases in the stringency of controls. The reclassification provisions of the Clean Air Act are a reasonable mechanism to assure continued progress toward attainment of the health-based ambient air quality standards when areas miss their attainment deadlines and are not punitive.

Final Rule, 62 Fed. Reg. 60001, 60003 (Nov. 6, 1997). Phoenix NFR. Why has EPA changed its mind about the functions of reclassification?

Response 13: EPA has not changed its mind about the function of the reclassification provision where the issue of transport is not presented. In the context of Phoenix, a reclassification not involving transport, EPA made the response cited by commenter, and noted that the reclassification provision was not intended to be punitive. This view is consistent with the position that EPA takes here, where the circumstances are quite different from the non-transport reclassification context. In the absence of transport, an area that fails to attain by its attainment date, may still fairly be held accountable for controlling local pollution, and be granted a longer attainment deadline in return for more stringent controls. Under these circumstances, applying the reclassification provisions is not punitive. But in the circumstances EPA and the states confront here, the local area is not responsible for pollution that interferes with its ability to meet the standard. In such a case, to trigger reclassification would impose on the area the responsibility and costs for pollution beyond its control, and would indeed be punitive. To avoid such a result, and to effectuate Congressional

^{1,2} Because the D.C. Circuit stayed the obligation of States to submit plans by 13 months, the court also extended by 13 months the date by which sources must implement the necessary controls.

intent, EPA has interpreted the Act to authorize an attainment date extension.

Comment 14: Congress directly considered and rejected EPA's interpretation of its attainment date extension authority during the Clean Air Act Amendments of 1990. During debate, Senator Kasten expressed concern about the proposed legislation's provisions concerning the "issue of downwind ozone nonattainment." He noted that pollution from Chicago affected southeastern Wisconsin, but described "the difficulty this poses is that the Nation's most polluted urban areas are given a much more generous timetable for meeting air-quality standards. Chicago will have 5 more years to meet air-quality standards than these Wisconsin counties will have." Senator Kasten then noted that because of Chicago's longer attainment date, it was likely that the Wisconsin counties "will be found in violation of the Clean Air Act because of actions taking place outside of their jurisdiction in an upwind State." The commenter claims that Senator Kasten introduced an amendment which provided, among other things, for an attainment date extension for the downwind area until the upwind nonattainment area achieved emission reductions. S. Comm. On Env't. And Pub. Works, A Legislative History of the Clean Air Act Amendments of 1990, pp. 4954-55 (1993). The commenter claims that "the amendment, was, of course, rejected." Thus the commenter argues that Congress, although it addressed ozone transport in sections 176A and 184, declined to alter the requirements of section 181, even though it was aware of the problem that EPA seeks to solve with its attainment date extension policy.

Response 14: There is no evidence that the amendment discussed by Senator Kasten was ever debated, considered, or voted upon. Commenter cites no support for the proposition that it was considered and rejected. Thus no inferences can be drawn from the fact that the amendment was not embodied in the statute. Moreover, even if the amendment had been considered and rejected, it differed from and went so far beyond the attainment date extension EPA is applying here as to not be probative of Congressional intent with respect to EPA's current interpretation of the Act. Among other things, it would have provided for a new and separate Ozone Transport Region, and would have provided for different obligations and consequences for downwind areas than what is contained in EPA's current interpretation of the attainment date

extension policy. Legislative History at 4954-56.

Comment 15: The EPA policy is an illegal expansion of the 1994 overwhelming transport policy. Now the upwind area need not be a nonattainment area with a later attainment date, as long as it is an upwind area in another state that significantly contributes to nonattainment in the downwind area. Also, the new policy would allow attainment even later than attainment for the upwind area if the date for the NO_x SIP Call reductions is later. Where the upwind area is in attainment or where its attainment date is earlier than the NO_x SIP Call reductions, then an extension cannot be justified as necessary to reconcile the transport provisions with section 181(a). There is no justification for applying the policy where the upwind area is in attainment, or is in nonattainment but has air quality meeting the NAAQS, or where it is in nonattainment but has an attainment date earlier than the extension proposed.

Response 15: The policy is not an illegal expansion of the overwhelming transport policy, but an appropriate interpretation of the provisions of the Clean Air Act in order to fulfill Congressional intent. EPA's current articulation of the attainment date extension policy reflects the considerable advances in understanding and allocating responsibility for transport that have occurred since the formulation of the Overwhelming Transport Policy. These advances have resulted from the work on ozone transport included in, among other efforts, the OTAG, SIP call, and area modeling programs. EPA thus regards the attainment date extension policy as superseding the Overwhelming Transport Policy. See EPA's earlier responses. The policy is not being applied here so as solely to involve upwind attainment areas, or upwind areas with earlier attainment dates. Upwind attainment areas with deficient SIPs have still been found to contribute significantly to downwind nonattainment. The SIP call involves a statewide area that may include attainment and nonattainment areas that have been found to contribute significantly to downwind nonattainment.

Comment 16: Downwind areas should be required to implement, not just adopt, all required measures before becoming eligible for an extension. Modeling is imprecise and an area might be able to attain if they implement all required measures, which should already have been implemented

prior to the original attainment date. A state could have timely submitted all the provisions for control of local pollution as required by sections 182(b)(1)(A)(i), 182(c)(2), and 172(c)(1) providing for the full extent of local reductions that it was in the state's power to require.

Response 16: In granting an attainment date extension for an area, EPA has determined that upwind reductions are necessary to help the area reach attainment. Thus, requiring all local reductions to be implemented prior to the time that upwind reductions are achieved would not accelerate attainment. Nonetheless, EPA has required that local reductions be implemented as expeditiously as practicable. See EPA's Guidance 61 FR 14441 (March 25, 1999).

Comment 17: EPA's allegation that local measures "will become superfluous once upwind areas reduce their contribution to the pollution problem," 64 Fed. Reg. 14444, is mistaken. First, the measures will produce public health benefits during the period prior to implementation of upwind reductions, and second the Act independently requires all areas to "implement all reasonably available control measures as expeditiously as practicable," 172(c)(1), regardless of what reductions are expected from upwind areas. EPA should not allow downwind areas to postpone implementing local measures until upwind reductions are achieved. This extension is unlawful, and, because unexplained, arbitrary and capricious.

Response 17: EPA disagrees with the commenter's characterization of EPA's actions. EPA is in fact requiring downwind areas to implement the local control measures required under the classification as expeditiously as practicable, but no later than the time the upwind reductions are achieved. See EPA's Guidance, supra. To obtain an extension the area must have provided that it will implement all adopted measures as expeditiously as practicable, but no later than the date by which the upwind reductions needed for attainment will be achieved. See also response to Comment 16, above. No measures are being postponed as a result of the areas being granted a later attainment deadline. None of these areas have delayed or postponed the effectiveness of measures because their attainment date is being extended. The states are enforcing their attainment measures as expeditiously as practicable. Thus EPA's interpretation is not unexplained, arbitrary, nor capricious. As EPA has explained, it seeks to reconcile and coordinate the

responsibilities of upwind and downwind areas to work together to achieve attainment. However, as discussed elsewhere, EPA has applied the section 172(c)(1) RACM requirement to these areas.

Comment 18: EPA is excusing downwind areas from the requirement that nonattainment SIPs must provide for attainment of the NAAQS as provided in sections 182(b)(1)(A)(i), 182(c)(2)(A), 172(c)(1), and is also excusing them from the requirement that they implement all reasonably available control measures as expeditiously as practicable, regardless of the reductions required for attainment. EPA's attempt to lessen these obligations is unlawful and, because unexplained, arbitrary and capricious.

Response 18: EPA is not excusing downwind areas from the requirement that they submit SIPs providing for attainment. Nor is EPA excusing downwind areas from the RACM requirement. EPA's interpretation does not exclude what is necessary for attainment; rather, a measure is RACM if it is needed for attainment. EPA is enforcing this requirement, but allowing the downwind state to take into account the control contribution of upwind areas that Congress envisioned, and that the commenters themselves acknowledge is embodied in Clean Air Act provisions, in determining the applicable attainment date. EPA is also requiring that the states implement reasonable control measures as expeditiously as practicable. See EPA's Responses to other comments.

Comment 19: EPA's policy cannot be defended as a reconciliation of section 181(a) with the Act's anti-transport provisions. Under a proper interpretation of the Act, (1) upwind states' SIPs would ensure that the upwind areas' pollution contributing to NAAQS violations in downwind areas would be controlled, no later than the downwind areas' attainment date, (2) upwind areas would attain locally as expeditiously as practicable but no later than the date prescribed by section 181(a)(1) for the upwind area, and (3) downwind areas would attain locally "as expeditiously as practicable but not later than the applicable date prescribed in section 181(a)(1). This reading gives effect to all of the relevant statutory provisions.

Response 19: The commenter concedes that under a proper interpretation of the Act, upwind states' SIPs would ensure that upwind areas' pollution contributing to violations in downwind areas would be controlled, prior to the downwind area's attainment

date. But in the circumstances actually confronting EPA and the states, as EPA has explained in prior responses, it was not possible, given the state of knowledge of regional ozone transport, to control upwind transport prior to the original downwind attainment dates set forth in section 181(a)(1). Thus, in order to allow the upwind areas to fulfill their responsibility under the Act and to avoid imposing on the downwind area a burden Congress did not intend, EPA proposed interpreting the Act to adjust the downwind attainment deadlines, the very interpretation that the commenter rejects as unnecessary. By adjusting the attainment date to allow the upwind and downwind areas to carry out the statutory allocation of responsibility that is acknowledged by the commenter, EPA indeed is reconciling the Act and rendering a proper interpretation.

Comment 20: No extension should be granted unless the area is as small as possible. The basis for transport should not be OTAG modeling, since better data is available.

Response 20: The boundaries for serious nonattainment areas were established by operation of law (CAA section 107(d)(4)). The modeling done by OTAG and by EPA in the SIP call and the local modeling done in connection with the attainment demonstrations represents the best available modeling.

2. Comments Received on 12/16/99 Proposals

Comment 1: The SIP submittals for Springfield, Greater Connecticut and Metropolitan D.C. do not contain substantive additional measures to reduce the state's ground level ozone problem. EPA cannot approve the attainment submittal because, among other reasons, it does not provide for attainment "as expeditiously as practicable," as required by Section 181(a) of the CAA. Both the attainment submittal and the proposed rule simply assert that the states, acting alone, cannot achieve attainment, either in 1999 or 2007. Neither the state nor EPA explores the question of what can the state do, with the help of specified upwind emission reductions, to achieve attainment as expeditiously as practicable. There is no showing that the State could not achieve attainment in 2003 through a combination of local and state measures and the NO_x SIP Call; we only know that the NO_x SIP Call is not likely to produce attainment by 2003 without additional local reductions. The SIPs do not meet the requirements of the CAA to provide for attainment as expeditiously as practicable and/or no later than

November 15, 1999. States have made no attempt to provide for attainment as soon as possible. Because they do not meet the CAAs requirements for timely attainment, EPA must disapprove them.

Response 1: Congress did not intend for the states to be responsible for achieving attainment, acting alone, when upwind areas are transporting pollution that contributes to their nonattainment problem. EPA has determined that, under the attainment date extension, the states will attain the standard as expeditiously as practicable. The basis for this determination, and EPA's findings that the area is affected by transport from upwind areas, is discussed extensively in section II.A.1. EPA has determined that even with the attainment date extension, no reasonably available control measures would advance the attainment date. See other Responses to Comments in sections II. A and II. E.

Comment 2: The state's SIP does not contain adequate contingency measures as required by Section 172(c)(9) of the CAA. Such measures are especially important in a case such as this, where a substantial portion of the emission reductions relied on are assumed to occur well into the future, and well beyond the statutory attainment date.

Response 2: Although no measures have been specifically designated as contingency measures, EPA has found that measures that could reasonably constitute appropriate contingency measures are already contained in the SIP or exist in promulgated Federal regulations. See discussion of contingency measures in section II. L below.

Comment 3: Even assuming the Transport Guidance is consistent with the Act, the states' attainment submittals do not meet the requirements and/or preconditions necessary to secure adequate emissions reductions from in-state sources. For example, CT and MA could secure further NO_x reductions from power plants and other stationary sources through implementation of RACT on additional stationary sources. The States could secure additional reductions through a diesel inspection and maintenance program.

Response 3: EPA believes that a diesel I/M program may have some potential for emission reductions. At this time, however, there is insufficient information available about the program to determine whether I/M would be economically or technologically feasible. Also, the test protocols are not sufficiently developed to enable EPA to determine the magnitude of reductions possible, and thus whether the

program's emission reductions would advance the attainment date. In its other Responses to Comments, EPA has explained and supported its conclusions that the states have adopted and will implement as expeditiously as practicable the measures necessary to secure adequate emissions reductions from in-state sources. No additional RACM is required for these areas.

Comment 4: The States have failed to timely pursue administrative avenues for states to seek redress for transport problems: through a section 126 petition and a section 110 SIP call. CT and MA did not file section 126 petitions until the summer of 1997. Even if EPA's transport Guidance were lawful, it should not be applied except as a matter of last resort—the downwind area must have identified and committed to all necessary local measures and exhausted its administrative remedies in a timely fashion to secure all necessary upwind reductions. The States have failed to do that and have waited too long. They want to wait until upwind reductions bring them into attainment without making any additional emission reductions of their own. This is not in keeping with the attainment provisions and schedules in the CAA.

Response 4: EPA disagrees with the commenter that the States have waited too long to seek relief. As set forth in detail in section II. A.1, the States and EPA have worked for years to solve the transport problem, and were unable to obtain adequate redress for transported pollution until the culmination of the OTAG effort. EPA finds that the States were not dilatory in their efforts to pursue relief from transported pollution; relief was not available until regional transport could be analyzed and responsibility for remediation appropriately apportioned. These effort took years, and was more prolonged than Congress, EPA, or the states had anticipated. See EPA's discussion of the history of the efforts to address transport in section II. A.1. The States have not failed to pursue any remedies as they became meaningful and available. Nor does EPA agree that its attainment date extension allows the States to wait for upwind reductions without making local emission reductions. EPA's policy is predicated upon an equitable allocation of responsibility between upwind and downwind areas, and explicitly requires the downwind areas to adopt and implement local controls as expeditiously as practicable.

Comment 5: The states have failed to implement all available control measures and have not demonstrated that attainment is impracticable due to pollutant transport. The states have

failed to meet the requirement of EPA's transport policy that the states adopt all local measures required under the area's current classification. Among other things, the Washington, DC area states have failed to adopt NO_x RACT programs that meet all applicable requirements of the Act and EPA guidance.

Response 5: EPA disagrees with the commenter's contention that the states being granted attainment date extensions have not satisfied the criterion of adopting required local measures. EPA finds that the states have fulfilled their responsibility with respect to having adopted required local measures. With respect to contingency measures, EPA has determined that measures that can be reasonably construed to function as contingency measures are already contained in the areas' SIPs. See further discussion of the contingency measure requirement in other Responses to Comments. With respect to Washington, DC and Massachusetts, the areas have adopted and EPA has found approvable all other local measures that are required under their current classification, including NO_x RACT. EPA has further found that the states have or will implement required local measures as expeditiously as practicable. With respect to Connecticut, the state has adopted and EPA has approved all measures required under its current classification except with respect to certain aspects of its new source review (NSR) program. Connecticut's nonattainment area NSR program is the one Clean Air Act measure required under the state's classification that EPA has not yet approved as meeting all the requirements of the Act. Nevertheless, EPA has determined that Connecticut's NSR program substantially addresses the Act's requirements and provides a sufficient basis for EPA to apply its attainment date extension policy. The Connecticut NSR program imposes all the Act's requirements on new and modified sources of air pollution for those sources covered by the state's program, including the lowest achievable emissions rate technology standard and emissions offsets consistent with the classification under the Act of the state's two ozone nonattainment areas. In addition, the state's NSR program captures the correct universe of new sources covered by the Act's requirements. The reason Connecticut's program does not fully meet all the Act's requirements is that the state's formula for capturing modified sources of air pollution in the program differs from the federal requirements in

one respect. EPA's federal NSR regulations generally require that modifications be measured by comparing the actual emissions of the existing facility with the potential emissions of the modified facility. Connecticut's regulations compare the potential emissions of the existing facility with the potential emissions of the modified facility. On the other hand, Connecticut's program is more rigorous than EPA's regulations in measuring a modification in so far as the state's program does not allow for "netting" at a source to avoid being treated as a modification. Federal regulations would allow an increase in emissions at an existing source to be balanced against contemporaneous emissions decreases elsewhere at the source to avoid NSR, while Connecticut's NSR program does not. On balance, EPA has concluded that the state's NSR program substantially addresses this Clean Air Act requirement for the purposes of granting an attainment date extension under EPA's policy.

EPA thus concludes that substantial compliance with the NSR program and approval of all remaining required measures constitutes substantial compliance with the criterion that the state adopt all measures required under Connecticut's current classification. EPA has further found that it will implement these measures as expeditiously as practicable. Thus, EPA believes that the states have fulfilled their responsibility to satisfy the requirements of their current classification, and that, under these circumstances, Congress would not have intended them to be reclassified for failure to attain.

The sufficiency of the Washington, DC area States' NO_x RACT rules is discussed extensively in responses to other comments elsewhere in this notice.

Comment 6: The states have not shown that they have committed to implement all local measures necessary to secure adequate emissions reductions from in-state sources. They have not shown that a combination of local reductions and upwind reductions will achieve attainment by their extended dates.

Response 6: EPA has found that the states have demonstrated attainment through a combination of upwind and local measures. See other EPA responses and discussion of the attainment demonstration. Secondly, although the states theoretically could always secure more reductions through additional local measures, Congress did not intend that the downwind states compensate for the upwind states failure to control

transported pollution. Having met the RACM requirements and controlled for local pollutants, the downwind area should not be required to secure additional emissions reductions in order to offset emissions from upwind sources. As EPA has discussed elsewhere in its responses, the States have committed to implement all measures necessary to secure adequate emissions from in-state sources.

Comment 7: The DC Circuit stated in *American Trucking Ass'n v EPA*, 175 F.3d 1027 (D.C. Cir. 1999) that EPA "is precluded from enforcing a revised primary ozone NAAQS other than in accordance with the classifications, attainment dates, and control measures set out in Subpart 2." This means that EPA cannot ignore the attainment dates in Subpart 2.

Response 7: The opinion cited concerns EPA's authority to implement a revised 0.08 ppm 8-hour standard not the standard at issue here—the one-hour 0.12 ppm NAAQS. Regarding EPA's belief that the provisions in Subpart 2 of the Act govern implementation of the one-hour standard, EPA is not ignoring the attainment dates in Subpart 2. EPA is interpreting the provisions of Subpart 2 to allow EPA to extend the attainment deadlines in accordance with Congressional intent and using means set forth in the provisions of Subpart 2. Thus EPA is properly implementing the one-hour standard.

Comment 8: Each serious area plan on its face shows that the control measures described therein will not by themselves produce attainment at any point, and clearly not by 1999. EPA's reliance on SIP call reductions is particularly unjustified in the DC Area, given that Virginia is challenging EPA's authority to require those very reductions. EPA cannot grant credit for SIP call reductions when the SIP call has been judicially stayed.

Response 8: As EPA has explained elsewhere in its responses, Congress did not intend for a downwind area that is affected by transport to be responsible for pollution generated outside its borders. The stay of the SIP call has been vacated and the SIP call has been upheld. The court lifted its stay and states are required to submit SIPs fully addressing the SIP call and if they fail, EPA must promulgate a Federal plan. EPA is fully justified in its reliance on SIP call reductions and in granting credit for them in the areas' attainment demonstrations.

Comment 9: The SIPs fail to provide for attainment as expeditiously as practicable even though this is a serious area where a specific attainment deadline has passed. Furthermore, the

States have not even evaluated the possibility of attaining sooner than their extended attainment dates. The SIPs must be disapproved by EPA since they do not meet the CAA's basic requirements for timely attainment nor do they consider the possibility of providing for earlier attainment even if the attainment date extension were permissible.

Response 9: EPA shows in its other Responses, the SIPs provide for attainment as expeditiously as practicable, and the States have shown that they qualify for an attainment date extension due to transport. EPA evaluated the reductions required for attainment from both the upwind and downwind areas, and determined that the attainment dates were as expeditious as practicable. See also Responses 11 and 12 below.

Comment 10: This not a situation where the states have adopted all available measures and still show nonattainment due solely to transport. The states have refused to even identify the levels of VOC and NO_x emissions that would be consistent with attainment in the absence of NO_x reductions that would be required by the NO_x SIP Call. Nor do the plans state the level of emission reductions that would be needed to produce attainment in the absence of upwind reductions. EPA cannot rationally find that transported NO_x renders attainment impracticable in the serious areas, when the states have neither quantified the reductions needed locally to attain in the absence of transport reductions, nor shown that such reductions are unachievable through adoption of additional state and local control measures.

Response 10: EPA in its Responses has provided an extensive analysis of the role of transport in downwind nonattainment for the serious areas. In the NO_x SIP Call, EPA concluded that "EPA believes that available modeling analyses demonstrate that upwind reductions are necessary to help downwind areas come into attainment." 63 FR 57404 (October 27, 1998). These downwind areas included the areas being granted attainment date extensions here. The DC Circuit upheld EPA's conclusion in *Michigan versus EPA*, 213 F.3d 663 (D.C. Cir. 2000). The SIP call and the modeling done by the states support the conclusion that the affected areas cannot attain without upwind reductions. Congress intended that upwind areas be responsible for pollution that interferes with downwind nonattainment, while at the same time requiring that downwind areas be accountable for locally generated

emissions. The Clean Air Act reflects Congressional intent that downwind areas not be compelled to compensate for lack of upwind controls through the adoption of additional state and local control measures, as commenter suggests. EPA disagrees with commenter's suggestion that the downwind areas must show that no further local reductions are achievable before relying on upwind areas to shoulder responsibility for the pollution they generate. EPA finds that a reading of the Clean Air Act shows that Congress did not intend for downwind areas to be forced to impose additional local controls to offset significant pollution contributions from upwind areas, before seeking relief.

Comment 11: EPA has not demonstrated that Metropolitan Washington, DC would attain but for transport. To the contrary, episode-specific data shows that the second highest ozone exceedance recorded last summer occurred on a day on which air parcels originated in Northern Virginia. The EPA has offered no rational basis for granting a longer transport-related extension to the Metropolitan Washington, DC area than to Massachusetts.

Response 11: Strong evidence indicates that the Washington, DC nonattainment area is impacted by transport from outside the area and cannot attain without upwind reductions. Sensitivity modeling which applies additional local controls to the Baltimore nonattainment area indicates reducing levels of ozone and its precursors in the Baltimore nonattainment area reduces ozone levels in the Washington, DC nonattainment area. A more focused analysis of days when exceedances occur in the Washington, DC nonattainment area shows that under stagnant meteorological conditions the Washington, DC and Baltimore areas ultimately share the same air mass and mixing occurs throughout the CMSA as is evidenced by the strong correlation between high ozone concentrations in each of these areas (less than 40 miles apart) during stagnation events. Because air can be transported from Baltimore to Washington, DC within 24 hours and a portion of the DC exceedances occur on days when winds are from the north, including Baltimore, high ozone in Baltimore has the potential to cause exceedances in Washington, DC.

NO_x SIP Call and local attainment modeling for the Washington, DC and Baltimore nonattainment areas show that the Washington, DC nonattainment area will need controls not only local to the Washington, DC nonattainment area

but from upwind areas, especially Baltimore, MD. Local modeling for 1999 relies heavily on the NO_x SIP Call reductions and the local controls in the Baltimore area, some of which will not be implemented until 2005 (*i.e.*, 2005 boundary conditions were used that reflect the NO_x SIP Call reductions in addition to the Baltimore area SIP controls). It has been clearly demonstrated that, until the Baltimore area implements local controls and comes into attainment, high ozone and precursor emissions from the Baltimore nonattainment area have the potential to cause exceedances in the Washington, DC nonattainment area.

Comment 12: EPA has not shown that the attainment date extension for Connecticut is justified due to transport.

Response 12: There is strong evidence to support the premise that the Greater Connecticut nonattainment area is impacted by transport from outside the state, especially New York; and cannot attain without upwind reductions. Sensitivity modeling which removes all emissions from Connecticut indicate transported levels of ozone and its precursors alone generate exceedances in the state of Connecticut. A more focused analysis of days when exceedances occur in Connecticut shows that the majority of these days occur when winds are coming from the Southwest and thus carry NO_x and ozone from the New York City metropolitan area and points further west and south. NO_x SIP Call and local attainment modeling for the New York and Greater Connecticut nonattainment areas show that the Greater Connecticut nonattainment area will need controls not only local to the Greater Connecticut nonattainment area but from upwind States, especially New York. Local modeling for 2007 relies heavily on the NO_x SIP Call reductions (upwind and within the modeling domain) as well as controls being implemented in the New York nonattainment area. It has been clearly demonstrated that, until the New York nonattainment area implements local controls and comes into attainment, high ozone and precursor emissions from the New York nonattainment area have the potential to cause exceedances in the Greater Connecticut nonattainment area.

Comment 13: The Plan fails to demonstrate emission reductions of 3 percent per year over each three year period after 1999 until attainment. Assuming a 2005 attainment date, the plan must provide for a nine percent reduction in VOC and/or NO_x remissions by 2002 and another 9 percent between 2002 and 2005. The states have not attempted to

demonstrate compliance with these requirements, and EPA has not proposed to find that they have been met. EPA has no authority to waive the statutory mandate for three per cent annual reductions. Emission reductions in upwind states do not waive the statutory requirement for 3 percent annual emission reductions within the downwind nonattainment area.

Response 13: EPA's guidance did not interpret the period of time after granting the attainment date extension based on transport as requiring additional rate of progress increments from the downwind area, since we determined that the reason the area had not attained was due to upwind transport. Therefore it would be unreasonable to lock the downwind area into fixed progress requirement reductions from local sources, when the combination of local reductions with upwind area source emission reductions is what will bring the area into attainment. In any event, to the extent that it should be determined otherwise, and that any ROP required should be imposed on the downwind area, this requirement would not attach until EPA grants the attainment date extension and provides the area with a later attainment date. Since the requirement was not previously due, fulfilling the requirement, if any is deemed to exist, is not a condition of receiving the attainment date extension.

Comment 14: EPA has no legal authority to extend the one-hour attainment date. Such extension is unlawful and unwise. Under the explicit provisions of Section 181(a)(1) of the Act, the states are required to attain the one-hour ozone standard as expeditiously as practicable, but no later than November 15, 1999. EPA cannot create exemptions from this requirement.

Response 14: EPA has responded extensively to issues pertaining to the legality of the attainment date extension in its March 1999 responses, above.

B. Attainment Demonstrations—Weight of Evidence

Comment: The weight of evidence approach does not demonstrate attainment or meet CAA requirements for a modeled attainment demonstration. Commenters added several criticisms of various technical aspects of the weight of evidence approach, including certain specific applications of the approach to particular attainment demonstrations. These comments are discussed in the following response.

Response: Under section 182(c)(2) and (d) of the CAA, serious and severe ozone

nonattainment areas were required to submit by November 15, 1994, demonstrations of how they would attain the 1-hour standard. Section 182(c)(2)(A) provides that “[t]his attainment demonstration must be based on photochemical grid modeling or any other analytical method determined by the Administrator, in the Administrator’s discretion, to be at least as effective.” As described in more detail below, the EPA allows states to supplement their photochemical modeling results, with additional evidence designed to account for uncertainties in the photochemical modeling, to demonstrate attainment. This approach is consistent with the requirement of section 182(c)(2)(A) that the attainment demonstration “be based on photochemical grid modeling,” because the modeling results constitute the principal component of EPA’s analysis, with supplemental information designed to account for uncertainties in the model. This interpretation and application of the photochemical modeling requirement of section 182(c)(2)(A) finds further justification in the broad deference Congress granted EPA to develop appropriate methods for determining attainment, as indicated in the last phrase of section 182(c)(2)(A).

The flexibility granted to EPA under section 182(c)(2)(A) is reflected in the regulations EPA promulgated for modeled attainment demonstrations. These regulations provide, “The adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in [40 CFR part 51 Appendix W] (Guideline on Air Quality Models).”³ 40 CFR 51.112(a)(1). However, the regulations further provide, “Where an air quality model specified in appendix W * * * is inappropriate, the model may be modified or another model substituted [with approval by EPA, and after] notice and opportunity for public comment * * *.” Appendix W, in turn, provides that, “The Urban Airshed Model (UAM) is recommended for photochemical or reactive pollutant modeling applications involving entire urban areas,” but further refers to EPA’s modeling guidance for data requirements and procedures for operating the model. 40 CFR 51 App. W section 6.2.1.a. The modeling guidance discusses the data requirements and operating procedures, as well as interpretation of model

³ The August 12, 1996 version of “Appendix W to Part 51—Guideline on Air Quality Models” was the rule in effect for these attainment demonstrations. EPA is proposing updates to this rule which will not be in effect until the new rule is promulgated.

results as they relate to the attainment demonstration. This provision references guidance published in 1991, but EPA envisioned the guidance would change as we gained experience with model applications, which is why the guidance is referenced, but does not appear, in Appendix W. With updates in 1996 and 1999, the evolution of EPA's guidance has led us to use both the photochemical grid model, and additional analytical methods approved by EPA.

The modeled attainment test compares model predicted 1-hour daily maximum ozone concentrations in all grid cells for the attainment year to the level of the NAAQS. The results may be interpreted through either of two modeled attainment or exceedance tests: a deterministic test or a statistical test. Under the deterministic test, a predicted concentration above 0.124 parts per million (ppm) ozone indicates that the area is expected to exceed the standard in the attainment year and a prediction at or below 0.124 ppm indicates that the area is expected to not exceed the standard. Under the statistical test, attainment is demonstrated when all predicted (*i.e.*, modeled) 1-hour ozone concentrations inside the modeling domain are at, or below, an acceptable upper limit above the NAAQS permitted under certain conditions (depending on the severity of the episode modeled).⁴

In 1996, EPA issued guidance;⁵ to update the 1991 guidance referenced in 40 CFR 50 App. W, to make the modeled attainment test more closely reflect the form of the NAAQS (*i.e.*, the statistical test described above), to consider the area's ozone design value and the meteorological conditions accompanying observed exceedances, and to allow consideration of other evidence to address uncertainties in the modeling databases and application. When the modeling does not conclusively demonstrate attainment, EPA has concluded that additional analyses may be presented to help determine whether the area will attain the standard. As with other predictive tools, there are inherent uncertainties associated with air quality modeling and its results. The inherent imprecision of the model means that it may be inappropriate to view the specific numerical result of the model as the only determinant of whether the SIP controls are likely to lead to attainment. The EPA's guidance recognizes these limitations, and provides a means for

considering other evidence to help assess whether attainment of the NAAQS is likely to be achieved. The process by which this is done is called a weight of evidence (WOE) determination. Under a WOE determination, the state can rely on, and EPA will consider in addition to the results of the modeled attainment test, other factors such as other modeled output (*e.g.*, changes in the predicted frequency and pervasiveness of 1-hour ozone NAAQS exceedances, and predicted change in the ozone design value); actual observed air quality trends (*i.e.*, analyses of monitored air quality data); estimated emissions trends; and the responsiveness of the model predictions to further controls.

In 1999, EPA issued additional guidance⁶ that makes further use of model results for base case and future emission estimates to predict a future design value. This guidance describes the use of an additional component of the WOE determination, which requires, under certain circumstances, additional emission reductions that are or will be approved into the SIP, but that were not included in the modeling analysis, that will further reduce the modeled design value. An area is considered to monitor attainment if each monitor site has air quality observed ozone design values (4th highest daily maximum ozone using the three most recent consecutive years of data) at or below the level of the standard. Therefore, it is appropriate for EPA, when making a determination that a control strategy will provide for attainment, to determine whether or not the model predicted future design value is expected to be at or below the level of the standard. Since the form of the 1-hour NAAQS allows exceedances, it did not seem appropriate for EPA to require the test for attainment to be "no exceedances" in the future model predictions. The method outlined in EPA's 1999 guidance uses the highest measured design value from all sites in the nonattainment area for each of three years.⁷ The three year "design value"

represents the air quality observed during the time period used to predict ozone for the base emissions. This is appropriate because the model is predicting the change in ozone from the base period to the future attainment date. The three yearly design values (highest across the area) are averaged to account for annual fluctuations in meteorology. The result is an estimate of an area's base year design value. The base year design value is multiplied by a ratio of the peak model predicted ozone concentrations in the attainment year (*i.e.*, average of daily maximum concentrations from all days modeled) to the peak model predicted ozone concentrations in the base year (*i.e.*, average of daily maximum concentrations from all days modeled). The result is an attainment year design value based on the relative change in peak model predicted ozone concentrations from the base year to the attainment year. Modeling results also show that emission control strategies designed to reduce areas of peak ozone concentrations generally result in similar ozone reductions in all core areas of the modeling domain, thereby providing some assurance of attainment at all monitors.

In the event that the attainment year design value is above the standard, the 1999 guidance provides a method for identifying additional emission reductions, not modeled, which at a minimum provide an estimated attainment year design value at the level of the standard. This step uses a locally derived factor which assumes a linear relationship between ozone and the precursors. Although a commenter criticized this technique for estimating ambient improvement because it does not incorporate complete modeling of the additional emissions reductions, the regulations do not mandate nor does EPA guidance suggest that States must model all control measures being implemented. Moreover, a component of this technique—the estimation of future design value, should be considered a model predicted estimate. Therefore, results from this technique are an extension of "photochemical grid" modeling and are consistent with Section 182(c)(2)(A). Also, a commenter believes EPA has not provided sufficient opportunity to evaluate the calculations

this averaging only for purposes of determining one component, *i.e.*—the amount of additional emission reductions not modeled—of the WOE determination. The WOE determination, in turn, is intended to be a qualitative assessment of whether additional factors (including the additional emissions reductions not modeled), taken as a whole, indicate that the area is more likely than not to attain.

⁴ Guidance on the Use Of Modeled Results to Demonstrate Attainment of the Ozone NAAQS. EPA-454/B-95-007, June 1996.

⁵ *Ibid.*

⁶ "Guidance for Improving Weight of Evidence Through Identification of Additional Emission Reductions, Not Modeled." U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, Air Quality Modeling Group, Research Triangle Park, NC 27711. November 1999. Web site: <http://www.epa.gov/ttn/scram>.

⁷ A commenter criticized the 1999 guidance as flawed on grounds that it allows the averaging of the three highest air quality sites across a region, whereas EPA's 1991 and 1996 modeling guidance requires that attainment be demonstrated at each site. This has the effect of allowing lower air quality concentrations to be averaged against higher concentrations thus reducing the total emission reduction needed to attain at the higher site. The commenter's concern is misplaced. EPA relies on

used to estimate additional emission reductions. EPA provided a full 60-day period for comment on all aspects of the proposed rule. EPA has received several comments on the technical aspects of the approach and the results of its application, as discussed above and in the responses to the individual SIP's.

Commenter states, application of the method of attainment analysis in the December 16, 1999 guidance will yield a lower control estimate than if we relied entirely on reducing maximum predictions in every grid cell to less than or equal to 124 ppb on every modeled day. However, this approach may overestimate needed controls (*e.g.*, the form of the standard allows up to 3 exceedances in 3 years in every grid cell; and if the model over predicts observed concentrations, predicted controls may also be overestimated, *etc.*). In recognition of this EPA has considered other evidence to make these determinations, as described above through the weight of evidence determination.

When reviewing a SIP, the EPA must make a reasonable determination that the control measures adopted more likely than not will lead to attainment. Under the WOE determination, EPA has made these determinations based on all of the information presented by the States and available to EPA. The information considered includes model results for the majority of the control measures. Though all measures were not modeled, EPA reviewed the model's response to changes in emissions as well as observed air quality changes to evaluate the impact of a few additional measures, not modeled. EPA's decision was further strengthened by each State's commitment to check progress towards attainment in 2003 and to adopt additional measures, if the anticipated progress is not being made.

A commenter further criticized EPA's technique for estimating the ambient impact of additional emissions reductions not modeled on grounds that EPA employed a rollback modeling technique that, according to the commenter, is precluded under EPA regulations. The commenter explained that 40 CFR 51 App. W section 6.2.1.e. provides, "Proportional (rollback/forward) modeling is not an acceptable procedure for evaluating ozone control strategies." Section 14.0 of appendix W defines "rollback" as "a simple model that assumes that if emissions from each source affecting a given receptor are decreased by the same percentage, ambient air quality concentrations decrease proportionately." Under this approach if 20% improvement in ozone is needed for the area to reach

attainment, it is assumed a 20% reduction in VOC would be required. There was no approach for identifying NO_x reductions. The "proportional rollback" approach is a purely empirically/mathematically derived relationship, and is not what EPA did. The prohibition in Appendix W applies to the use of a rollback method which is empirically/mathematically derived and independent of model estimates or observed air quality and emissions changes as the sole method for evaluating control strategies. For the demonstrations under proposal, EPA used a locally derived (as determined by the model and/or observed changes in air quality) ratio of change in emissions to change in ozone to estimate additional emission reductions to achieve an additional increment of ambient improvement in ozone. This did assume a linear relationship between the precursors and ozone for a small amount of ozone improvement. EPA has generally relied on photochemical modeling to evaluate the attainment demonstrations and their control strategies, and has used locally derived adjustment factors as a component to estimate the extent to which additional emissions reductions—not the core control strategies—would reduce ozone levels and thereby strengthen the weight of evidence test. This limited use of adjustment factors is more technically sound than the unacceptable use of proportional rollback. The limited use of adjustment factors is more practical in light of the uncertainty in the modeling; the resources and time required to perform additional modeling; and the requirement that areas perform a progress check by the end of 2003.

Contrary to concerns expressed by a commenter, EPA did not err by modifying the modeling requirements without first proposing to do so. Section 3.0 of appendix W states, "It should not be construed that the preferred models identified here are the only models available for relating emissions to air quality." Section 3.2.2 of Appendix W further provides that the "determination of acceptability of a model is a Regional Office responsibility. Where the Regional Administrator finds that an alternative model is more appropriate than a preferred model, that model may be used subject to the recommendations in appendix W. This finding will normally result from a determination that (1) a preferred air quality model is not appropriate for the particular application; or (2) a more appropriate model or analytical procedure is

available and is applicable." Therefore, EPA does have the discretion to identify a more appropriate analytical procedure without undergoing rulemaking on updates to Appendix W. Also, as discussed above, by reference to the modeling guidance, Appendix W was designed to allow changes in the predictive tools and data bases without undergoing additional rulemaking. In any event, the EPA is taking comment during the SIP rulemaking process on the application of its guidance.

A commenter also expressed concern that EPA applied unacceptably broad discretion in fashioning and applying the WOE determinations. EPA disagrees. The WOE determinations are made on a case-by-case basis. EPA has approved attainment demonstrations based on WOE determinations, generally with a requirement for additional reductions not modeled, only when the photochemical modeling provides a basis for believing that the SIP controls will achieve substantial ozone reductions, if not attainment levels. The fact that the WOE factors are incremental and differ between demonstrations, leads EPA to conclude these determinations may be made on a case-by-case basis, without hard-and-fast guidelines. Moreover, EPA believes that the WOE approach is bounded by the strength of the various factors that may be applied. The commenter added, as an example, EPA's application of the WOE approach to the Washington, DC attainment demonstration where modeling showing an ozone level (as adjusted) of 142 ppb was compared to the acceptable upper limit of 137 ppb. The commenter observed that EPA adjusted the modeled prediction on average by a factor of 19% to account for model over prediction, and stated that such an adjustment was not appropriate. In EPA's view, the 19% over prediction that underlies the 142 ppb level is only a rough approximation of the extent of modeling uncertainty. In EPA's view, consideration of model performance (specifically, a bias to under- or over-predict ozone levels) is one way to assess modeling uncertainty. To further address uncertainty, EPA applied the 1999 guidance to estimate the future design, in the same manner as applied to all of the other attainment demonstrations received. Both the assessment of model performance and the estimated future design value were used in the WOE determination.⁸

⁸ Observing that for the attainment demonstration for the Washington, D.C. area, EPA reduced modeled ozone values by 19% to account for model overprediction, a commenter criticized this technique as lacking technical justification. EPA

The commenter also complained that EPA has applied the WOE determinations to adjust modeling results only when those results indicate nonattainment, and not when they indicate attainment. WOE is not used to adjust model results. WOE is additional analysis that is reviewed when there is reason to question the attainment demonstration. For the current demonstrations under proposal, EPA's decision to approve the demonstrations relied not only on the modeling, but other WOE, as well. For example, EPA considered current air quality, model performance (over- as well as under-prediction), number of episode days, model predicted future design values, and results from the regional modeling for the NO_x SIP Call, where applicable. For a given attainment demonstration any one of these elements could have indicated the area may not attain. But collectively the information supported EPA's decision. EPA has applied WOE determinations to all of the current demonstrations under proposal, although except for the Chicago and Milwaukee attainment demonstrations, the modeling results submitted do not pass the recommended "modeled attainment test." Reference to the individual proposals for how WOE was applied in each case. These determinations were made based on EPA's best understanding of the problem and relied on a qualitative assessment as well as quantitative assessments of the available information. In some cases, EPA believed the demonstration of attainment was not conclusive, and in these cases EPA made the determination that additional emission reductions

guidance recommends assessment of model performance (both over- and under-prediction) as one of the factors affecting the model results. In general performance measures that fall within EPA recommended ranges are considered as an indication that the model is performing acceptably. For the Washington, D.C. area, EPA explained how performance was more closely reviewed and used as part of the WOE. The technique is described in "Technical Support Document for the One-Hour Ozone Attainment Demonstrations submitted by the State of Maryland, Commonwealth of Virginia and the District of Columbia for the Metropolitan Washington, D.C. Ozone Nonattainment Area," November 30, 1999. The modeled peak ozone results generally correlated (in geographic proximity) with the monitored peak ozone emissions (and the modeled plume generally correlated (in geographic proximity) with the observed ozone plume), except that the peak modeled ozone levels averaged approximately 19–20% higher than the peak monitored levels. Modeling uncertainties (including, for example, the non-linearity of the modeling) lead EPA to conclude that adjusting each modeled peak by the 19% average over-prediction was at least as sensible as adjusting each modeled peak by an amount that corresponds to that modeled peak's relationship to the monitored ozone value in the same vicinity.

were needed to strengthen the demonstration.

The commenter further criticized EPA's application of the WOE determination on grounds that EPA ignores evidence indicating that continued nonattainment is likely, such as, according to the commenter, monitoring data indicate that ozone levels in many cities during 1999 continue to exceed the NAAQS by margins as wide or wider than those predicted by the UAM model. EPA did consider the monitoring data along with other information in these determinations. When reviewing the monitoring data, EPA considered other factors. For example, high monitoring values may have occurred for many reasons including, fluctuations due to changes in meteorology and lack of emission reductions. The 1999 monitor values do not reflect several control programs, both local and the regional which are scheduled for implementation in the next several years. And the 1999 meteorology in the Northeast was such that July 1999 was one of the warmest (ranked 9th) ever experienced since 1895.⁹ In addition to the heat, the middle and southern portions of the Northeast were also drier than average during this month. This information supports EPA's belief that the high exceedances observed in 1999 are not likely to reoccur frequent enough to cause a violation, once the controls adopted in these SIP's are implemented. There is little evidence to support the statement that ozone levels in many cities during 1999 continue to exceed the NAAQS by margins as wide or wider than those predicted by the UAM. Since areas did not model 1999 ozone levels using 1999 meteorology and 1999 emissions which reflect reductions anticipated by control measures, that are or will be approved into the SIP, there is no way to determine how the UAM predictions for 1999 compare to the 1999 air quality. Therefore, we cannot determine whether or not the monitor values exceed the NAAQS by a wider margin than the UAM predictions for 1999. In summary, there is little evidence to support the conclusion that high exceedances in 1999 will continue to occur after adopted control measures are implemented.

In addition, the commenter argued that in applying the WOE determinations, EPA ignored factors showing that the SIPs under-predict

⁹ <http://www.ncdc.noaa.gov/ol/climate/research/1999/perspectives.html> and "Regional Haze and Visibility in the Northeast U.S."; NESCAUM at <http://www.nescaum.org/pdf/publist.pdf>.

future emissions, and the commenter included as examples certain mobile source emissions sub-inventories. EPA did not ignore possible under-prediction in mobile emissions. EPA is presently evaluating mobile source emissions data as part of an effort to update the computer model for estimating mobile source emissions. EPA is considering various changes to the model, and is not prepared to conclude at this time that the net effect of all these various changes would be to increase or decrease emissions estimates. For attainment demonstration SIPs that rely on the Tier 2/Sulfur program for attainment or otherwise (*i.e.*, reflect these programs in their motor vehicle emissions budgets), States have committed to revise their motor vehicle emissions budgets after the MOBILE6 model is released. EPA will work with States on a case-by-case basis if the new emission estimates raise issues about the sufficiency of the attainment demonstration. Corrections, if needed, will be made in time for the progress check in 2003 and if the analysis indicates additional measures are needed, EPA will take the appropriate action.

C. Reliance on NO_x SIP Call and Tier 2 Modeling

Comment: Given the uncertainty surrounding the NO_x SIP Call at the time of EPA's proposals on the attainment demonstrations, there is no basis for the conclusion reached by EPA that states should assume implementation of the NO_x SIP Call, or rely on it as a part of their demonstrations. The commenter references modeling data which demonstrates that the benefits of imposing NO_x SIP Call controls are limited to areas near the sources controlled.

The commenter adds that there are errors in the emissions used for the NO_x SIP Call Supplemental Notice (SNPR). The commenter believes that because of inaccurate inventories the modeling analyses, estimates of air quality based on that modeling, and estimates of EPA's Tier II tailpipe emissions reduction program not modeled in the demonstrations, are also flawed.

Response: In *Michigan v. EPA*, 213 F.3d 663 (D.C. Cir. 2000), the court upheld the NO_x SIP Call on most issues, although a subsequent order of the court delays the implementation date to no later than May 31, 2004. EPA is moving forward to implement those portions of the rule that have been upheld, ensuring that most—if not all—of the emission reductions from the NO_x SIP Call assumed by the States in their 1-hour

ozone NAAQS attainment demonstrations will occur. EPA's modeling to determine the region-wide impacts of the NO_x SIP Call clearly shows that regional transport of ozone and its precursors is impacting nonattainment areas several states away, and this analysis was upheld by the court. Therefore, it is appropriate for States to assume implementation of the NO_x SIP Call.

The EPA considered many factors when making these determinations. No single piece of information was determinant. It is important to recognize that the regional modeling for the Tier II rule was not used in the 1-hour attainment demonstrations and that the SNPR modeling was only one of several factors considered. EPA's decision was based on a qualitative assessment of the information presented. Information reviewed included results of the modeled attainment test, along with other supplemental information such as other modeled outputs (e.g., changes in the predicted frequency and pervasiveness of 1-hour ozone NAAQS exceedances and predicted changes in the ozone design value); actual observed air quality trends (i.e. analyses of monitored air quality data); estimated emissions trends; base year model performance; SNPR derived future design values; the responsiveness of the model predictions to further controls; and for some of the demonstrations estimates of additional emission reductions. EPA recognizes that any and all of this information has some degree of uncertainty, including the SNPR modeling. EPA recognizes that these uncertainties should be considered when making these determinations and that is why EPA considered other factors. EPA's weight of evidence determinations are not affected by error in any one piece of the information.

D. Impact of the NO_x SIP Call on Attainment of the 1-Hour NAAQS

Comment: One commenter states that Massachusetts's NO_x emissions interfere with attainment in downwind areas of New Hampshire and Maine and that Connecticut's NO_x emissions interfere with attainment in downwind areas of Massachusetts, New Hampshire and Maine. Therefore, the commenter states that significant additional NO_x reductions are needed for these areas to attain the 1-hour ozone NAAQS. The commenter also remarked that neither Massachusetts nor Connecticut has committed to adequate emission control strategies.

Response: In the final rule for the NO_x SIP Call (63 FR 57394, October 27, 1998), EPA indicated that Massachusetts

contains sources that contribute significantly to 1-hour nonattainment in Maine and New Hampshire, and that Connecticut contains sources that contribute significantly to 1-hour nonattainment in Massachusetts, Maine and New Hampshire. The NO_x SIP Call rule specified the emissions that Connecticut and Massachusetts were required to regulate to address their significant contribution to nonattainment in these downwind States. Massachusetts submitted a rule meeting the NO_x SIP Call on November 19, 1999, and EPA proposed approval of this rule on July 12, 2000 (65 FR 42907). Similarly, Connecticut submitted a rule in response to the NO_x SIP Call on October 1, 1999, and EPA proposed approval on July 12, 2000 (65 FR 42900). On October 20, 2000, the Regional Administrator signed notices fully approving these rules, and publication is expected soon. These rules have addressed Massachusetts's and Connecticut's contribution to ozone nonattainment in downwind areas. In addition, recent air quality monitoring data for 1998–2000, which have been quality assured, indicate that the Portland, ME, and Portsmouth-Dover-Rochester, NH, ozone nonattainment areas no longer violate the 1-hour ozone NAAQS.

E. RACM (Including Transportation Control Measures)

1. Comments on December 16, 1999 Proposal

Comment: Several commenters have stated that there is no evidence in several states that they have adopted reasonably available control measures (RACM) or that the SIPs have provided for attainment as expeditiously as practicable. Specifically, the lack of Transportation Control Measures (TCMs) was cited in several comments, but potential stationary source controls were also covered. One commenter stated that mobile source emission budgets in the plans are by definition inadequate because the SIPs do not demonstrate timely attainment or contain the emissions reductions required for all RACM. That commenter claims that EPA may not find adequate a motor vehicle emission budget (MVEB) that is derived from a SIP that is inadequate for the purpose for which it is submitted. The commenter alleges that none of the MVEBs submitted by the states that EPA is considering for adequacy is consistent with either the level of emissions achieved by implementation of all RACM; nor are they derived from SIPs that provide for attainment. Some commenters stated

that for measures that are not adopted into the SIP, the State must provide a justification for why they were determined to not be RACM.

Response: The EPA reviewed the SIP submittals for the four serious areas (Greater Connecticut, Western Massachusetts (Springfield); Metropolitan Washington, D.C.; and Atlanta, Georgia¹⁰) and determined that they did not include sufficient documentation concerning available RACM measures. Therefore, EPA reviewed numerous potential RACM measures. As part of this review, EPA developed an analysis, which has been placed in the dockets for the SIPs for the serious areas to help address this issue: "RACM Analysis for Four Serious Areas Designated Nonattainment for 1-hr Ozone NAAQS." U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711; and Office of Transportation and Air Quality, Ann Arbor, MI 48105. October 12, 2000. An electronic version of EPA's RACM analysis cited above can be downloaded at www.epa.gov/ttn/rto under "What's New." The EPA published a notice of availability of this material on October 16, 2000 (65 FR 61134) and provided initially a 15 day public comment period on the material. The EPA extended the public comment period on this supplemental material for an additional 15 days in a notice published November 2, 2000 (65 FR 65818) and corrected on November 9, 2000 (65 FR 67319).

Section 172(c)(1) of the Act requires SIPs to contain RACM and provides for areas to attain as expeditiously as practicable. EPA has previously provided guidance interpreting the requirements of 172(c)(1). See 57 FR 13498, 13560. In that guidance, EPA indicated its interpretation that potentially available measures that would not advance the attainment date for an area would not be considered RACM. EPA also indicated in that guidance that states should consider all potentially available measures to determine whether they were reasonably available for implementation in the area, and whether they would advance the attainment date. Further, states should indicate in their SIP submittals whether measures considered were reasonably available or not, and if measures are reasonably available they must be adopted as RACM. Finally, EPA indicated that

¹⁰These responses to comments will not address Atlanta; that will be addressed in the future when EPA takes final rulemaking action on the Atlanta SIP.

states could reject measures as not being RACM because they would not advance the attainment date, would cause substantial widespread and long-term adverse impacts, or would be economically or technologically infeasible. The EPA also issued a recent memorandum re-confirming the principles in the earlier guidance, entitled, "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas." John S. Seitz, Director, Office of Air Quality Planning and Standards. November 30, 1999. Web site: <http://www.epa.gov/ttn/oarpg/t1pgr.html>.

The EPA's RACM analysis cited above evaluated emission levels of oxides of nitrogen (NO_x) and volatile organic compounds (VOC) and their relationship to the application of current and anticipated control measures expected to be implemented in four serious one-hour ozone nonattainment areas. This analysis was done to determine if additional RACM are available after adoption of Clean Air Act (Act) required measures for the four serious ozone nonattainment areas. The analysis supplemented the December 16, 1999 proposals to approve the 1-hour O₃ NAAQS attainment demonstrations in these areas.

Based on this analysis and other information discussed below, EPA concluded that additional emission control measures would not advance the attainment date and therefore do not constitute RACM in three nonattainment areas: Greater Connecticut; Springfield, Massachusetts; and Metropolitan Washington. The EPA therefore concludes that the SIPs for these areas meet the requirement for adopting RACM.

In addition to control measures already implemented locally, each of the three areas relies in large part on reductions from outside the nonattainment areas from EPA's NO_x SIP Call rule or section 126 rule (65 Fed. Reg. 2674, January 18, 2000) to reach attainment. In the NO_x SIP Call, 63 Fed. Reg. 57356, EPA concluded that reductions from various upwind states were necessary to provide for timely attainment in nonattainment areas in various downwind states, including all four of the nonattainment areas that were the subject of this analysis. The NO_x SIP Call therefore established requirements for control of sources of significant emissions in all upwind states. However, these reductions were not slated for full implementation until May 2003. Further, the United States

Court of Appeals for the District of Columbia Circuit recently ordered that EPA could not require SIPs to provide for full implementation of the NO_x SIP Call prior to May 2004. *Michigan, et al., v. EPA*, D.C. Cir. No. 98-1497, Order of Aug. 30, 2000.¹¹

The attainment demonstrations for these three serious areas indicate that the ozone benefit expected to be achieved from regional NO_x reductions (such as the NO_x SIP Call) are substantial. (See the individual attainment demonstrations in the docket for each of these areas.)

EPA had proposed to approve an attainment date extension beyond the original attainment date specified in the Clean Air Act (November 1999) for each of the three serious areas: to 2007 for Greater Connecticut; to 2003 for Western Massachusetts; and to 2005 for Metropolitan Washington. The rationale for such extensions is discussed in detail extensions elsewhere in these responses to comments. Briefly, however, the extensions are being given mainly due to the fact that these areas will have to rely on emission reductions from upwind areas. Some of those upwind reductions will be provided under the NO_x SIP Call rule with compliance in 2004, and from the section 126 rule, with compliance in 2003. Additional reductions from other nonattainment areas are relied on by Greater Connecticut and the Metropolitan Washington, DC areas.

For Greater Connecticut—Greater Connecticut must rely on reductions from the New York City nonattainment area to reach attainment. The New York nonattainment area—classified severe—has a statutory attainment date of as late as 2007. The SIP submitted for New York City, which EPA has proposed to approve, establishes a 2007 attainment date. It is unlikely that all the emission reductions necessary to reduce sufficiently upwind emissions to bring Greater Connecticut into attainment will be obtained until the attainment year for New York City and the best available evidence indicates that date will be 2007. EPA's zero out modeling analyses conducted in support of EPA's NO_x SIP Call show that even eliminating all of Connecticut's emissions does not help Connecticut attain prior to the time New York City reaches attainment, since the effects of transport are so significant. (See 64 FR 70343.) Therefore, EPA concludes that additional emission reductions within Connecticut would

not advance the attainment date for the Greater Connecticut area, and thus that no additional measures are considered RACM.

For Metropolitan Washington—There is strong evidence to support the premise that the Washington, DC nonattainment area is impacted by transport from outside the modeled Washington-Baltimore area and cannot attain without upwind reductions. The response to comments on the issue of attainment date extensions for the Metropolitan Washington DC area provides a detailed discussion of the role of transport from within the modeling area and we do not repeat that information here. See section II. A. Based on that information, it has been clearly demonstrated that, until the Baltimore nonattainment area implements local controls and comes into attainment, there is the potential for high ozone and precursor emissions from the Baltimore nonattainment area to cause exceedances in the Washington, D.C. nonattainment area.

Based on the above, the Metropolitan Washington, DC area must rely on reductions from outside the nonattainment area to reach attainment. The Baltimore nonattainment area—classified severe—has a statutory attainment date of as late as 2005. The SIP submitted for Baltimore, which EPA has proposed to approve, establishes a 2005 attainment date. It is unlikely that all the emission reductions necessary to reduce sufficiently upwind emissions to bring Metropolitan Washington into attainment will be obtained until the attainment year for Baltimore, and the best available evidence indicates that date will be 2005. Therefore, EPA concludes that additional emission reductions within the Metropolitan Washington, D.C. area would not advance the attainment date for the area, and thus that no additional measures are considered RACM.

For Western Massachusetts and Metropolitan Washington:

1. Many of the measures designed to achieve emissions reductions from within these nonattainment areas—in particular, the regional NO_x reductions—will also not be fully implemented until just prior to each area's respective attainment date. One could argue that the local measures needed for attainment in these two areas could be implemented earlier and advance attainment. Additional reductions beyond those already provided for in the SIPs for these two areas could potentially be implemented in the interim period prior to the reductions from these upwind controls; however, they would only be needed for

¹¹ Several States (DE, PA, CT, MA, RI, MD, NY, NJ) have submitted plans providing for reductions by 2003. EPA has fully approved three of these plans (CT, MA, RI).

an interim period of time, after which the State could actually replace them if the State submits a new attainment demonstration showing they were no longer necessary. The interim implementation of such measures could likely result in cases where sources would have to install controls, and then would be relieved of such responsibility, which could be disruptive. Thus, EPA believes this situation—where the local controls would only marginally advance attainment—supports a finding that the additional controls would not be considered RACM.

2. Also, the development of rules for sources in the Western Massachusetts and Metropolitan Washington nonattainment areas for which little control information may exist—especially a large number of very different source categories of small sources—will likely take much longer than development of rules for source categories for which control information exists or that comprise a smaller number of larger sources. The longer the time frame for development of rules by the State would decrease the possibility that the emission reductions from the rules would advance the attainment date earlier than would be achieved from the larger amount of reductions expected from upwind controls, such as the NO_x SIP Call rule and the section 126 rule.

For all three areas—One could also argue that the measures needed in the upwind area that is affecting the area in question could be implemented earlier and therefore could result in earlier attainment. The EPA recognizes that it has not taken final rulemaking on the severe areas that affect the three serious areas in question (New York for the Greater Connecticut and Western Massachusetts nonattainment areas, and Baltimore for the Metropolitan Washington nonattainment area). However, since EPA must take rulemaking action on the three serious areas at this time, and because it does not have information to the contrary at this point, EPA must presume the attainment dates submitted by the States and for which EPA proposed approval on December 16, 1999, and therefore presume that emission controls for those severe areas will be implemented as expeditiously as practicable on a schedule to achieve those reductions. Because EPA proposed to approve the attainment dates for the severe areas in question, it is reasonable to assume that the severe areas cannot implement their measures to achieve attainment any more expeditiously.

Thus, EPA believes that implementation of additional measures

in the three nonattainment areas will not advance the attainment date, prior to the time of full implementation of the SIP call and/or the section 126 rule and, for Greater Connecticut and Metropolitan Washington, prior to implementation by the upwind area of all local measures needed to attain by the area's attainment date.

Therefore, EPA concludes, based on the available documentation, that the reductions from additional control measures will not advance attainment, and thus none of these potential measures analyzed can be considered RACM for purposes of section 172(c)(1) for these three areas for their 1-hour ozone standard attainment demonstration.

Although EPA does not believe that section 172(c)(1) requires implementation of additional measures for these three serious areas, this conclusion is not necessarily valid for other areas. For 1-hour ozone nonattainment areas classified as severe, for instance, some of which are the “upwind” areas referred to in the above responses for serious areas, such measures may in fact be RACM, and the States in which such areas are located have a responsibility to perform an analysis of whether additional measures are RACM. EPA is about to issue additional guidance concerning the RACM requirement for the severe areas. In addition, if in the future EPA moves forward to implement another ozone standard, this RACM analysis would not control what is RACM for these or any other areas for that other ozone standard.

Also, EPA has long advocated that States consider the kinds of control measures that the commenters have suggested, and EPA has indeed provided guidance on those measures. See, e.g., <http://www.epa.gov/otaq/transp.htm>. In order to demonstrate that they will attain the 1-hour ozone NAAQS as expeditiously as practicable, some areas may need to consider and adopt a number of measures—including the kind that EPA itself evaluated in the RACM analysis for the three serious areas—that even collectively do not result in many emission reductions. Furthermore, EPA encourages areas to implement technically available and economically feasible measures to achieve emissions reductions in the short term—even if such measures do not advance the attainment date—since such measures will likely improve air quality. Also, over time, emission control measures that may not be RACM now for an area may ultimately become feasible for the same area due to advances in control technology or more

cost-effective implementation techniques. Thus, areas should continue to assess the state of control technology as they make progress toward attainment and consider new control technologies that may in fact result in more expeditious improvement in air quality.

Discussion of other factors related to RACM, such as economic and technological feasibility, are discussed below in responses to comments on EPA's RACM analysis.

Elsewhere in this response to comments, EPA addresses the issue of whether the attainment dates are as expeditious as practicable and that discussion is not repeated here.

EPA previously responded to comments concerning the adequacy of MVEBs when EPA took final action determining the budgets adequate and does not address those issues again here. The responses are found at <http://www.epa.gov/oms/transp/conform/pastsips.htm>.

Comments on the supplemental material were received from several commenters and are addressed below.

Note that the response to the comment related to severe areas will be provided at the time EPA takes final rulemaking action on those areas.

2. Comments on October 16, 2000 Notice of Availability

Comment 1: EPA cannot invent rationales for the states: EPA's role is limited to reviewing what the states have submitted, and approving or disapproving it. 42 U.S.C. 7410(k)(3); *Riverside Cement Co. v. Thomas*, 843 F.2d 1246 (9th Cir. 1988). EPA “may either accept or reject what the state proposes; but EPA may not take a portion of what the state proposes and amend the proposal ad libitum.” *Id.* If states are going to reject control measures, their decision to do so and the rationale therefore must be subject to notice and hearing at the state and local level.

Response 1: The SIP submittals from the States for the Metropolitan Washington, Western Massachusetts, and the Greater Connecticut nonattainment areas contained no measures adopted for the sole purpose of satisfying the RACM requirement. The public did have a chance to comment at the State level on the fact that there were no additional measures. The EPA interpreted this lack of additional measures as an indication that the State did not identify any additional measures as meeting the RACM requirement under section 172(c)(1). The EPA did not amend the SIP; EPA supplemented the rationale

and approved the SIP with an explanation of why it was acceptable for the State to identify no additional measures to meet the RACM requirement of the Clean Air Act.

The commenter cites *Riverside Cement* for the proposition that EPA cannot perform an analysis of whether the State's plan complies with the CAA's RACM requirement. The EPA believes that the holding of that case is inapplicable to these facts. In *Riverside Cement*, EPA approved a control requirement establishing an emission limit into the SIP and disregarded a contemporaneously-submitted contingency that would allow the State to modify the emission limit. Thus, the court concluded that EPA "amended" the State proposal by approving into the SIP something different than what the State had intended. 843 F.2d at 1248. In the present circumstances, EPA did not attempt to modify a substantive control requirement of the submitted plan. Rather, EPA performed additional analyses to determine if the plan, as submitted, fulfilled the substantive RACM requirement of the Act. As a general matter, EPA believes that States should perform their own analyses of RACM (as well as submitting other supporting documents for the choices they make). The statute places primary responsibility on the States to submit plans that meet the Act's requirements. However, nothing in the Act precludes EPA from performing those analyses, and the Act clearly provides that EPA must determine whether the State's submission meets the Act's requirements. Under that authority, EPA believes that it is appropriate, though not mandated, that EPA perform independent analyses to determine whether a submission meets the requirements of the Act. The EPA has not attempted to modify the State's submission by either adding or deleting a substantive element of the submitted plan. By virtue of the supplemental RACM analysis, EPA has concluded that the State's initial submission contains control measures sufficient to meet the RACM requirement.

Comment 2 (a): Inappropriate grounds for rejecting RACM. The commenter claims that EPA's bases for rejecting measures as RACM are inappropriate considerations: (a) The measures are "likely to require an intensive and costly effort for numerous small area sources"; or (b) the measures "do not advance the attainment dates" for the four areas. 65 Fed. Reg. at 61134. Neither of these grounds are legally or rationally sufficient bases for rejecting control measures.

Response 2(a): The EPA's approach toward the RACM requirement is grounded in the language of the Clean Air Act. Section 172(c)(1) states that a SIP for a nonattainment area must meet the following requirement, "In general.—Such plan provisions shall provide for the implementation of *all reasonably available control measures as expeditiously as practicable* (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall *provide for attainment of the national primary ambient air quality standards.*" [Emphasis added.] The EPA interprets this language as tying the RACM requirement to the requirement for attainment of the national primary ambient air quality standard. The Act provides that the attainment date shall be "as expeditiously as practicable but no later than * * *" the deadlines specified in the Act. EPA believes that the use of the same terminology in conjunction with the RACM requirement serves the purpose of specifying RACM as the way of expediting attainment of the NAAQS in advance of the deadline specified in the Act. As stated in the "General Preamble" (57 FR 13498 at 13560, April 16, 1992), "The EPA interprets this requirement to impose a duty on all nonattainment areas to consider all available control measures and to adopt and implement such measures as are reasonably available for implementation in the area as *components of the area's attainment demonstration.*" [Emphasis added.] In other words, because of the construction of the RACM language in the CAA, EPA does not view the RACM requirement as separate from the attainment demonstration requirement. Therefore, EPA believes that the Act supports its interpretation that measures may be determined to not be RACM if they do not advance the attainment date. In addition, EPA believes that it would not be reasonable to require implementation of measures that would not in fact advance attainment. See 57 FR 13560.

The term "reasonably available control measure" is not actually defined in the definitions in the Act. Therefore, the EPA interpretation that potential measures may be determined not to be RACM if they require an intensive and costly effort for numerous small area sources is based on the common sense meaning of the phrase, "reasonably available." A measure that is reasonably available is one that is technologically and economically feasible and that can

be readily implemented. Ready implementation also includes consideration of whether emissions from small sources are relatively small and whether the administrative burden, to the States and regulated entities, of controlling such sources was likely to be considerable. As stated in the General Preamble, EPA believes that States can reject potential measures based on local conditions including cost. 57 FR 13561.

Also, the development of rules for a large number of very different source categories of small sources for which little control information may exist will likely take much longer than development of rules for source categories for which control information exists or that comprise a smaller number of larger sources. The longer the time frame for development of rules by the State would decrease the possibility that the emission reductions from the rules in the three nonattainment areas would advance the attainment date earlier than would be achieved from the larger amount of reductions expected from upwind controls, such as from the NO_x SIP Call and controls from severe areas with later statutory attainment dates.

Comment 2(b): EPA's approach also illegally assumes that the attainment dates for these areas can be extended beyond November 15, 1999 via the Agency's downwind transport policy.

Response 2(b): As noted above, EPA concluded that RACM is linked in the language of the Clean Air Act to the attainment date. We elsewhere respond to comments that object to EPA's approval of attainment date extensions and do not restate those responses here. See Section II. A. Once an attainment date is set for an area, an analysis can then be made to determine whether any additional measures that may potentially be RACM would advance that attainment date.

Comment 3: Failure to quantify reductions needed to attain sooner: Even if advancement of the attainment date were a relevant test for RACM, EPA has failed to rationally justify its claim that additional control measures would not meet that test. To begin with, neither the Agency nor the states have quantified in a manner consistent with EPA rules and guidance the emission reductions that would be needed to attain the standard prior to achievement of emission reductions required under the NO_x SIP Call.

Response 3: Elsewhere in this response to comments on the proposed approval of the 1-hour ozone SIPs, EPA addresses the issue of the attainment date extension. See section II. A. EPA has therein justified the position that areas affected by transport may need

additional time to attain—and in some cases may need an extension out to either the date the NO_x SIP Call will be implemented or the attainment date of an upwind area if it cannot attain without the reductions from the upwind area. In the case of Greater Connecticut, it would be futile to perform analyses of whether additional emission reductions in the nonattainment area—whether RACM or beyond RACM—would advance the attainment date when it is already demonstrated through modeling that the area cannot attain sooner than the upwind New York City nonattainment area that needs to control. In addition, all local measures needed for attainment are already being implemented. EPA considers this implementation as expeditious as practicable. In the case of Western Massachusetts, all local measures are already being implemented also. EPA also considers this implementation as expeditious as practicable. Issues concerned with timing of implementation of additional measures are also discussed above for the three serious areas.

For all three areas, EPA's section 126 rule requires compliance with covered emission reductions in 2003, which EPA considers as expeditiously as practicable for those sources. Additional discussion of the Metropolitan Washington nonattainment area appears below.

Comment 4: Inadequate RACM analysis: EPA's RACM analysis is grossly inadequate in several key respects.

Comment 4(a): EPA's analysis fails to provide the technical basis and calculations by which it developed its emission reduction estimates for various measures. EPA failed to provide citations to the literature regarding estimates of emission reductions for various TCMs. EPA failed to specify the level of implementation assumed for some of the TCMs in the analysis.

Response 4(a): EPA's RACM analysis (found at www.epa.gov/ttn/rto) did provide the technical basis and calculations for its emission reduction estimates for controls possible for the source categories in the emission inventory. The commenter apparently believes EPA's analysis is insufficient, however. The technical basis for the analyses and the assumptions used in the calculation of estimated emission reductions were derived from a review of the literature on the implementation and effectiveness of TCM's.¹² The TCMs

evaluated depend on the level of implementation. Implementation variables, representing levels of implementation effort, are implicit in the range of effectiveness for each category of TCM. EPA does not believe it is necessary, or even possible, to evaluate every explicit variation of TCM's in order to adequately determine if it is reasonably available. EPA believes that using the midpoint level of effectiveness represents a level of implementation effort that is not so high as to be economically infeasible, nor so low as to be ineffective.

Comment 4(b): EPA's analysis looks at only a small universe of potential measures, and does not evaluate all of the measures identified in public comment and other sources.

Response 4(b): EPA's RACM analysis was intended to address all potential categories of stationary and mobile sources that could provide additional emission reductions that might be considered RACM. The EPA believes that all identified measures were included in the categories addressed in the analysis.

Comment 4(c): EPA's analysis also completely fails to consider the additional benefits likely from combined implementation of complementary TCMS *e.g.*, parking management along with transit improvements. It is arbitrary and irrational for EPA to assume that these measures can and will be implemented in complete isolation from one another.

Response 4(c): EPA recognizes that many control measures—particularly TCMS—are more effective if done in conjunction with others. EPA maintains, however, that it would be impossible to analyze a seeming infinite set of combinations of measures for possible benefits. The EPA's analysis did look at all measures in various categories and concluded that as a whole these categories of measures would not advance attainment or would otherwise not be reasonably available.

Comment 5: Stationary sources: The analysis of potential emission reductions from additional stationary source measures is flawed in several key respects.

Comment 5(a): First, EPA arbitrarily excluded from any consideration the bottom 20% of the stationary source categories.

Response 5(a): EPA does not consider this exclusion arbitrary, since it was designed to eliminate from

consideration controls on a number of source categories that were not expected to yield many emission reductions. The EPA believed that controls on categories with very low emission reduction potential would not constitute RACM. The fact that none of the top 80 percent of the categories considered for additional controls yielded measures that EPA considered RACM for the areas in question validates EPA's decision not to analyze separately the bottom 20 percent of the categories, which would cumulatively have achieved fewer emission reductions. Therefore, EPA concludes that control measures applied to the bottom 20 percent of the categories are also not RACM.

Comment 5(b): Second, EPA did not consider potential additional controls on electric generating units and point source combustion sources.

Response 5(b): Undoubtedly there are additional controls that could be placed on electric generating units and point source combustion sources. However, EPA believes that the implementation of the RACT requirements in nonattainment areas and, more importantly, the implementation of the NO_x SIP Call in all areas affecting the nonattainment areas in general provide a level of control that represents all reasonably available controls for these sources in the areas in question. The EPA believes that generally, the level of NO_x emissions control required under the NO_x SIP Call for larger sources, including electric generating units and point source combustion sources, is greater than the level of control presumed by EPA under the NO_x RACT requirement. The NO_x SIP Call is based on a level of highly cost effective controls, characterized as having a \$2000 per ton cost effectiveness or less (63 FR 57400, October 27, 1998). The presumptive level of RACT provided in EPA guidance is based on cost effectiveness up to \$1300 per ton (Memorandum of March 16, 1994, from D. Kent Berry re: "Cost-Effective Nitrogen Oxides (NO_x) Reasonably Available Control Technology (RACT)"). EPA acknowledges that controls with costs higher than \$2000 per ton are available and may be cost-effective. However, the control costs do not reflect other concerns regarding reasonableness of control. EPA received comments that predicted problems with availability of electrical generation even at the NO_x SIP Call level of control; therefore, in its final NO_x SIP Call rule, EPA included provisions for a NO_x supplement pool to allow more time for some units to come into compliance and thus minimize potential power availability problems. At control levels greater than

¹² Transportation Control Measures: State Implementation Plan guidance, US EPA 1992; Transportation Control Measure Information

Documents, US EPA 1992; Costs and Effectiveness of Transportation Control Measures: A Review and Analysis of the Literature, National Association of Regional Councils 1994.

those in the NO_x SIP Call rule, EPA believes the time States would need to provide for sources to come into compliance while avoiding power availability problems would be more than the current amount of time for Western Massachusetts and Metropolitan Washington to attain. Therefore, EPA had determined that such additional controls do not constitute RACM.

Comment 5(c): Third, EPA assumes that only a 50% level of control is achievable for the uncontrolled emissions. This completely unsupported claim is hard to fathom.

Response 5(c): EPA's long-standing guidance on the RACT requirement for stationary sources of VOC has generally assumed a presumptive norm of 81 percent control efficiency; this efficiency was based on the assumption of a 90 percent capture efficiency and 90 percent control efficiency of the captured emissions ($0.9 \times 0.9 = 0.81$). However, the specific VOC RACT control techniques guidelines were developed for emission sources for which much information about emissions and controls was available. The RACT rules often apply to smaller sources as well as to major sources. There is not nearly as much information available concerning source categories for which RACT guidelines have not been developed; nor is there information regarding what controls are appropriate for the smaller sources that are not already subject to RACT. Therefore, without further information, EPA was hesitant to assume an 81 percent level of control. EPA therefore chose a 50 percent level of control for VOC control, which EPA believes is reasonable in light of our limited knowledge on available controls.

The EPA established guidance to States in complying with the Clean Air Act's requirements for NO_x RACT in the NO_x Supplement to the General Preamble (57 FR 55620, November 25, 1992). That guidance addressed RACT for major stationary sources of NO_x. Under section 182(b)(2) of the Act, moderate and higher ozone nonattainment area SIPs—and also SIPs for all areas in the Ozone Transport Region—were already required to contain provisions for applying a reasonably available level of control for NO_x for major stationary sources. For NO_x emission control for other sources, when EPA published the NO_x SIP Call (63 FR 57402, October 27, 1998), EPA evaluated other levels of control for categories of stationary sources that were not included in the highly cost-effective controls assumed for establishing the level of control

reflected in the Statewide NO_x emission budgets in that rule. The EPA determined that for area sources, additional controls that were technologically feasible and highly cost-effective could not be identified. The EPA determined that for small point sources, their collective emissions were relatively small and the administrative burden, to the States and regulated entities, of controlling such sources was likely to be considerable. Nonetheless, for the purpose of the RACM analysis, EPA did assume a level of control for sources with potential for control. In light of the lower level of confidence in information concerning NO_x controls on these sources, and the conclusion concerning cost effectiveness, however, EPA believed it had to take a more conservative approach, and thus chose a lower level of control, namely 50 percent. The EPA believes this level is reasonable in light of these facts.

Comment 6: Transportation Control Measures as RACM: EPA gives virtually no consideration to the emission reduction benefits of transportation programs, projects and services contained in adopted regional transportation plans (RTPs), or that are clearly available for adoption as part of RTPs adopted for a nonattainment area. In addition, it is arbitrary and capricious for EPA not to require as RACM economic incentive measures that are generally available to reduce motor vehicle emissions in every nonattainment area.

Response 6: EPA's notice of availability of the RACM analysis (65 FR 61134, October 16, 2000) does consider transportation programs, projects and services that are generally adopted, or available for inclusion in a nonattainment area's regional transportation plan (RTP) and Transportation Improvement Program (TIP). The RACM analysis includes seven broad categories and twenty-seven subcategories of Transportation Control Measures (TCMs) that represent a range of programs, projects and services that can be included in RTP's and TIP's. The inclusion of a TCM in an RTP or TIP does not necessarily mean that it meets EPA's criteria for RACM and must be included in the SIP. EPA has concluded that implementation of these TCM's would not advance the attainment date for the Greater Connecticut, Western Massachusetts, or Metropolitan Washington nonattainment areas, and therefore are not considered RACM for purposes of the attainment SIPs for those three areas.

Some of these TCM's, such as parking cashout, transit subsidies, and parking

pricing, are explicitly economic incentive programs. Furthermore, these categories of TCMs, as well as most of the others, could be infinitely differentiated according to criteria, such as the method of implementation, level of promotional effort or market penetration, stringency of enforcement, etc. The application of economic incentives to increase the effectiveness of a TCM is one such criterion. These implementation variables, representing levels of implementation effort, are implicit in the range of effectiveness for each category of TCM. EPA does not believe it is necessary, or even possible, to evaluate every explicit variation of TCM's in order to adequately determine if it is reasonably available. EPA believes that using the midpoint level of effectiveness represents a level of implementation effort that is not so high as to be economically infeasible, nor so low as to be ineffective.

Also, there are many important reasons why a state, regional, or local planning agency might implement TCMs in an integrated traffic management plan beyond whatever air quality benefits the TCMs might generate, including preserving open space, water shed protection, avoiding sprawl, mitigating congestion, and "smart growth" planning generally. So the fact that TCMs are being implemented in certain ozone nonattainment areas does not necessarily lead one to the conclusion that those TCMs represent mandatory RACM measures when they are analyzed primarily for the purpose of determining whether they would advance the ozone attainment date.

Comment 7: Washington, D.C. area analysis: Having refused to consider a wide range of measures for this area, and understating the potential benefits of others, EPA asserts that available measures would not advance the attainment date in Washington because: (a) The area relies heavily on control of transported emissions and ozone; and (b) the modeling indicates that NO_x reductions are generally more beneficial in reducing ozone levels, suggesting that the area may be NO_x limited. The first point is truly irrelevant to the RACM inquiry. Even if the issue is whether additional measures could advance the attainment date, that inquiry is not informed by whether the area might attain by 2005 due to NO_x SIP Call reductions, but by whether it could attain sooner than 2005 through additional local emission reductions. As to the second point, the modeling does not show that NO_x reductions are inherently more beneficial. They merely show that under some circumstances

generally involving very substantial NO_x reductions (e.g., 60% cuts) NO_x reductions might provide greater benefits per ton. The same model shows that NO_x reductions can sometimes actually lead to increased ozone levels in some cells. Even if the ozone problem in the Washington area is NO_x limited, that hardly justifies eschewing additional measures; at most it would suggest focusing more heavily on additional measures for NO_x sources. The commenter also attached a summary of South Coast AQMD Clean Fleet Rules.

Response 7: The sensitivity analyses that were performed with the photochemical grid model for the Baltimore-Washington area (see Attachment 4 of the RACM analysis) showed that, even with smaller NO_x emission reductions (e.g., 30% from the area and mobile sectors), the ozone benefits that are achieved are substantially greater than the minor ozone benefits achieved from similar VOC emission reductions. Therefore, EPA stands by its belief that the levels of VOC reductions in the Metropolitan Washington, DC area that could be achieved by additional stationary and mobile source control measures that are potentially RACM would not improve ozone levels to the point that would result in advancing the attainment date. Furthermore, EPA's analysis demonstrated that the source categories that were available for mobile NO_x controls were considered too limited—even with the area's ability to benefit from NO_x controls—to advance the attainment date.¹³ Also, EPA's analysis of levels of NO_x reductions in the Metropolitan Washington, DC area that could be achieved by additional stationary source controls that are potentially RACM would have to come from a large number of small sources where EPA does not have much guidance for control, and therefore could be costly to develop. Therefore, EPA concluded that additional controls on the source categories evaluated would not be considered RACM. It should be noted that the modeling was done for a modeling domain encompassing both Baltimore and Washington. The sensitivity analyses were performed for the entire area. Baltimore is classified severe with a 2005 attainment date, whereas the Metropolitan Washington

nonattainment area is classified as a serious area. EPA has proposed to approve an attainment date extension for the Metropolitan Washington, D.C. area precisely because the modeling shows that additional controls are needed for the Washington area to come into attainment—both from outside the modeling domain, and from within the Baltimore area. Other reasons for why EPA does not consider additional measures to be RACM for the Metropolitan Washington, D.C. area are discussed elsewhere in these responses to comments.

Comment 8: EPA did not provide sufficient notice and time to permit adequate comment.

Response 8: In its initial notice of availability of the RACM analysis (65 FR 61134, October 16, 2000) EPA offered a 15 day comment period (to October 31, 2000). On November 2, 2000 (65 FR 65818), EPA extended the comment period an additional 15 days, specifically stating that this would provide a total of 30 days for public comment. Unfortunately, that notice was published with a typographical error that appeared to extend the comment period an additional year and 15 days. Therefore, on November 9, 2000 (65 FR 67319), EPA published a correction to clearly extend the comment period 15 days from October 31, 2000, to November 15, 2000. EPA believes 30 days is an adequate period for public comment. The first notice to extend the public comment period (the November 2, 2000 notice) made it quite clear that the extension was for only 15 days to provide a total of 30 days for comment; EPA believes no possible confusion should have resulted from the fact that the end date of the comment period contained a typographical error.

Comment 9: EPA is trying to circumvent obligations under 2 Consent Decrees (MOG vs EPA and NRDC v. Browner).

Response 9: This comment refers to consent decrees filed in two cases: *NRDC v. Browner*, No. 99-2976 (D.D.C.) and *Midwest Ozone Group v. EPA*, No. 00-1047 (D.D.C.). In *NRDC*, the consent decree provides that by November 15, 2000, EPA shall propose a federal implementation plan (FIP) for the Springfield, Massachusetts; Greater Connecticut; and Metropolitan Washington, DC nonattainment areas if EPA has not approved full attainment demonstration SIP for that area. The consent decree for *Midwest Ozone Group* is similar, but not identical. It provides that EPA shall propose federal implementation plans (FIPs) for two of the three nonattainment areas—Springfield, Massachusetts and Greater

Connecticut—if EPA has not proposed approval of a full attainment demonstration SIP for that area. The EPA met its obligation under the *Midwest Ozone Group* decree when it proposed approval of the full attainment demonstration SIPs for those two areas on December 16, 1999. 64 FR 70319 and 64 FR 70332. On November 6, 2000, the District Court granted EPA's unopposed motion to extend the deadline for action under the *NRDC* decree until December 15, 2000 for each of the three areas. On December 7, 2000, the court further extended the date for EPA action with respect to Springfield until December 22, 2000. The EPA has complied with the *NRDC* consent decree with respect to the Greater Connecticut and Metropolitan Washington, D.C. areas. The appropriate Regional Administrators signed final rulemaking actions approving the full attainment demonstration SIPs for those two areas by December 15, 2000. The EPA is on track to comply with the *NRDC* consent decree for the Springfield, Massachusetts nonattainment area by December 22, 2000.

Comment 10: Since EPA found that MA and CT failed to conduct an adequate RACM analysis, EPA must disapprove the SIPs and propose a FIP.

Response 10: Although EPA found that MA and CT failed to conduct an adequate RACM analysis, EPA believes it does have authority to supplement the record and conclude that the SIPs for these two areas meet the RACM requirement of the Act. See above the response to comment.

F. Reliance on Commitments and State Rules Not Yet Adopted

Comment: Several commenters disagreed with the EPA's proposal to approve attainment demonstrations and rate-of-progress plans for the Springfield, Massachusetts, Greater Connecticut, and Metropolitan Washington, DC ozone nonattainment areas because not all of the emissions reductions credited in the demonstrations or plans are supported by legally enforceable limitations adopted and approved by the state or District and approved by the EPA as part of the SIP. Commenters also objected to accepting enforceable state commitments to adopt emission reduction control measures in the future in lieu of current adopted measures.

Response: The EPA has approved previously, or is approving together with the attainment demonstrations, all outstanding emission reduction limitations relied on for attainment for these three areas. Thus, none of the three areas on which the EPA is

¹³ RACM Analysis for Four Serious Areas Designated Nonattainment for 1-hr Ozone NAAQS. U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711; and Office of Transportation and Air Quality, Ann Arbor, MI 48105. October 12, 2000. p. 6.

approving have commitments to adopt emission reduction measures in the future and all emission reductions rules relied on for attainment have been fully approved by the EPA.

G. Adequacy of Motor Vehicle Emissions Budgets

Comment: We received a number of comments about the process and substance of EPA's review of the adequacy of motor vehicle emissions budgets for transportation conformity purposes. (Conservation Law Foundation, Environmental Defense Fund and Natural Resources Defense Council, New York Department of Transportation, New York State Department of Environmental Conservation, EarthJustice, Southern Environmental Law Center)

Response: EPA's adequacy process for these SIPs has been completed, and we have found the motor vehicle emissions budgets in all of these SIPs to be adequate. We have already responded to any comments related to adequacy when we issued our adequacy findings, and therefore we are not listing the individual comments or responding to them here. Our findings of adequacy and responses to comments can be accessed at www.epa.gov/otaq/traq (once there, click on the "conformity" button). At the web site, EPA regional contacts are identified.

H. Motor Vehicle Emissions Inventory

Comment: Several commenters stated that the motor vehicle emissions inventory is not current, particularly with respect to the fleet mix. Commenters stated that the fleet mix does not accurately reflect the growing proportion of sport utility vehicles and gasoline trucks, which pollute more than conventional cars. Also, a commenter stated that EPA and states have not followed a consistent practice in updating SIP modeling to account for changes in vehicle fleets. For these reasons, commenters recommend disapproving the SIPs. (Environmental Defense Fund and Natural Resources Defense Council; EarthJustice; Southern Environmental Law Center)

Response: All of the SIPs on which we are taking final action are based on the most recent vehicle registration data available at the time the SIP was prepared. The SIPs use the same vehicle fleet characteristics that were used in the most recent periodic inventory update. The Metropolitan Washington, DC Ozone Nonattainment Area SIP is based on vehicle registration data from 1996, which is the most recent data available at the time the SIP was prepared and submitted. Clearly the

1999 data could not have been used in motor vehicle emissions projections prepared in the fall of 1998 as documented in appendix D of the SIP. EPA requires the most recent available data to be used, but we do not require it to be updated on a specific schedule. Therefore, different SIPs base their fleet mix on different years of data. Our guidance does not suggest that SIPs should be disapproved on this basis. Further, EPA does not require states to go back and reanalyze SIP submissions if new data becomes available shortly before EPA takes final action on the SIP. Nevertheless, we do expect that revisions to these SIPs that are submitted using MOBILE6 (as required in those cases where the SIP is relying on emissions reductions from the Tier 2 standards) will use updated vehicle registration data appropriate for use with MOBILE6, whether it is updated local data or the updated national default data that will be part of MOBILE6. EPA is requiring the Metropolitan Washington, DC area states to revise the attainment budgets using MOBILE6.

I. VOC Emission Reductions

Comment: For States that need additional VOC reductions, this commenter recommends a process to achieve these VOC emission reductions, which involves the use of HFC-152a (1,1 difluoroethane) as the blowing agent in manufacturing of polystyrene foam products such as food trays and egg cartons. HFC-152a could be used instead of hydrocarbons, a known pollutant, as a blowing agent. Use of HFC-152a, which is classified as VOC exempt, would eliminate nationwide the entire 25,000 tons/year of VOC emissions from this industry.

Response: EPA has met with the commenter and has discussed the technology described by the company to reduce VOC emissions from polystyrene foam blowing through the use of HFC-152a (1,1 difluoroethane), which is a VOC exempt compound, as a blowing agent. Since the HFC-152a is VOC exempt, its use would give a VOC reduction compared to the use of VOCs such as pentane or butane as a blowing agent. However, EPA has not studied this technology exhaustively. It is each State's prerogative to specify which measures it will adopt in order to achieve the additional VOC reductions it needs. In evaluating the use of HFC-152a, States may want to consider claims that products made with this blowing agent are comparable in quality to products made with other blowing agents. Also the question of the over-all long term environmental effect of

encouraging emissions of fluorine compounds would be relevant to consider. This is a technology which States may want to consider, but ultimately, the decision of whether to require this particular technology to achieve the necessary VOC emissions reductions must be made by each affected State. Finally, EPA notes that under the significant new alternatives policy (SNAP) program, created under CAA § 612, EPA has identified acceptable foam blowing agents many of which are not VOCs (<http://www.epa.gov/ozone/title6/snap/>).

J. Credit for Measures Not Fully Implemented

Comment: States should not be given credit for measures that are not fully implemented. For example, the States are being given full credit for Federal coating, refinishing and consumer product rules that have been delayed or weakened.

Response: Architectural and Industrial Maintenance (AIM) Coatings: On March 22, 1995 EPA issued a memorandum¹⁴ that provided that States could claim a 20% reduction in VOC emissions from the AIM coatings category in ROP and attainment plans based on the anticipated promulgation of a national AIM coatings rule. In developing the attainment and ROP SIPs for their nonattainment areas, States relied on this memorandum to estimate emission reductions from the anticipated national AIM rule. EPA promulgated the final AIM rule in September 1998, codified at 40 CFR part 59 subpart D. In the preamble to EPA's final AIM coatings regulation, EPA estimated that the regulation will result in 20% reduction of nationwide VOC emissions from AIM coatings categories (63 FR 48855). The estimated VOC reductions from the final AIM rule resulted in the same level as those estimated in the March 1995 EPA policy memorandum. In accordance with EPA's final regulation, States have assumed a 20% reduction from AIM coatings source categories in their attainment and ROP plans. AIM coatings manufacturers were required to be in compliance with the final regulation within one year of promulgation, except for certain pesticide formulations which were given an additional year to comply. Thus all manufacturers were required to comply, at the latest, by September

¹⁴ "Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rules," March 22, 1995, from John S. Seitz, Director, Office of Air Quality Planning and Standards to Air Division Directors, Regions I-X.

2000. Industry confirmed in comments on the proposed AIM rule that 12 months between the issuance of the final rule and the compliance deadline would be sufficient to "use up existing label stock" and "adjust inventories" to conform to the rule. 63 FR 48848 (September 11, 1998). In addition, EPA determined that, after the compliance date, the volume of nonconforming products would be very low (less than one percent) and would be withdrawn from retail shelves anyway. Therefore, EPA believes that compliant coatings were in use by the Fall of 1999 and that it was appropriate for the States to take credit for those reductions in their SIPs.

Autobody Refinish Coatings Rule: Consistent with a November 27, 1994 EPA policy,¹⁵ many States have claimed a 37% reduction from this source category based on a proposed rule. However, EPA's final rule, "National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings," published on September 11, 1998 (63 FR 48806), did not regulate lacquer topcoats and will result in a smaller emission reduction of around 33% overall nationwide. The 37% emission reduction from EPA's proposed rule was an estimate of the total nationwide emission reduction. Since this number is an overall national average, the actual reduction achieved in any particular area could vary depending on the level of control which already existed in the area. For example, in California the reduction from the national rule is zero because California's rules are more stringent than the national rule. In the proposed rule, the estimated percentage reduction for areas that were unregulated before the national rule was about 40%. However as a result of the lacquer topcoat exemption added between proposal and final rule, the reduction is now estimated to be 36% for previously unregulated areas. Both the District and Virginia claimed 35.7% credit in their attainment and ROP plans while Maryland claimed 45%. EPA's best estimate of the reduction potential of the final rule was spelled out in a September 19, 1996 memorandum entitled "Emissions Calculations for the Automobile Refinish Coatings Final Rule" from Mark Morris to Docket No. A-95-18. The basis for approving Maryland's reductions is dealt with in a response to a separate comment

Consumer Products Rule: Consistent with a June 22, 1995 EPA guidance,¹⁶ States have claimed a 20% reduction from this source category based on EPA's proposed rule. The final rule, "National Volatile Organic Compound Emission Standards for Consumer Products," (63 FR 48819), published on September 11, 1998, has resulted in a 20% reduction after the December 10, 1998 compliance date. In the consumer products rule, EPA determined and the consumer products industry concurred, that a significant proportion of subject products have been reformulated in response to State regulations and in anticipation of the final rule. 63 FR 48819. That is, industry reformulated the products covered by the consumer products rule in advance of the final rule. Therefore, EPA believes that complying products in accordance with the rule were in use by the Fall of 1999 and that it was appropriate for the States to take credit for those reductions in their SIPs.

K. Enforcement of Control Programs

Comment: The attainment demonstrations do not clearly set out programs for enforcement of the various control strategies relied on for emission reduction credit.

Response: State enforcement program elements are contained in SIP revisions previously approved by EPA under obligations for enforceable emission limitations set out in section 110 of the Clean Air Act. Once approved by the EPA, there is no need for states to readopt and resubmit their enforcement programs with each and every SIP revision generally required by other sections of the Act.

L. Contingency Measures

Comment: The SIPs for the Metropolitan Washington, D.C. ozone nonattainment area do not provide contingency measures to make up for any emission reduction shortfall, either in achievement of ROP milestones or for failure to attain, as required by sections 172(c)(9) and 182(c)(9) of the Clean Air Act. The lawn/garden control measure that is included in the SIP for the District of Columbia and indicated as sufficient for a contingency measure is not currently legally enforceable, is only episodic in nature, and would not be adopted until 18 months after notice of a milestone failure.

Response: The EPA believes the contingency measure requirements of

sections 172(c)(9) and 182(c)(9) are independent requirements from the attainment demonstration requirements under sections 172(c)(1) and 182(c)(2)(A) and the rate-of-progress (ROP) requirements under sections 172(c)(2) and 182(c)(2)(B). The contingency measure requirements are to address the event that an area fails to meet a ROP milestone or fails to attain the ozone NAAQS by the attainment date established in the SIP. The contingency measure requirements have no bearing on whether a state has submitted a SIP that projects attainment of the ozone NAAQS or the required ROP reductions toward attainment. The attainment or ROP SIP provides a demonstration that attainment or ROP requirements ought to be fulfilled, but the contingency measure SIP requirements concern what is to happen only if attainment or ROP is not actually achieved. The EPA acknowledges that contingency measures are an independently required SIP revision, but does not believe that submission of contingency measures is necessary before EPA may approve an attainment or ROP SIP. Also see the discussion of contingency measures in the extension of the attainment date policy section.

The EPA has, however, examined the ROP and attainment SIPs for the Washington, D.C. nonattainment area.

The Post 1996 ROP and attainment demonstration SIPs for the Washington, D.C. area do not specify any specific measures as contingency measures. The EPA is approving the nonattainment demonstration and ROP plans today. (The plans pertain to the District and portions of the Commonwealth of Virginia and State of Maryland.) Approval of the plans without contingency measures is appropriate as stated above. Furthermore, the EPA notes that there are emission reductions not relied on or credited in the ROP plan accruing from the January 1, 2000, implementation of phase 2 of the reformulated gasoline program, NO_x reductions beyond RACT, and other on-road measures, such as NLEV, and a variety of off-road national emissions reduction programs. These measures will continue to provide reductions after 1999. The additional NO_x controls and reformulated gasoline measures alone are estimated to reduce emissions in the area by 1.7 percent of the VOC base line emissions and 10.5 percent of the NO_x base line emissions by May 2001. Thus, the SIP contains approved measures consistent with the contingency requirement.

Additionally, the EPA notes that there are emissions reductions not relied on or credited in the attainment

¹⁵ "Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rule and the Autobody Refinishing Rule," November 27, 1994, John S. Seitz, Director OAQPS, to Air Division Directors, Regions I-X.

¹⁶ "Regulatory Schedule for Consumer and Commercial Products under Section 183(e) of the Clean Air Act," June 22, 1995, John S. Seitz, Director OAQPS, to Air Division Directors, Regions I-X.

demonstration SIP accruing from the EPA's Tier II tailpipe standards and off-road national emission reduction measures. These measures will continue to provide reductions after November 2005, the attainment date that EPA is approving for the area. The measures are estimated to reduce emissions in the area by 2.5 percent of the VOC base line emissions and 1.7 percent of the NO_x base line emissions by May 2007 (the year following the time by which EPA must determine whether the area has attained). More details on EPA's contingency measure analysis are included in the docket for the rulemaking action. While there is not an approved SIP contingency measure that would apply if the Washington, D.C. area failed to attain, EPA believes that existing federally enforceable measures would provide the necessary substantive relief.

The EPA agrees with the commenter that the lawn/garden measure is insufficient as a contingency measure. However, the measure is not critical to meeting the contingency obligation in view of the reductions generated by the other emission control measures noted above.

M. Rate of Progress—NO_x Substitution

Comment: We received comments that assert the 9% demonstration assumes that a 1% reduction in NO_x emissions is equivalent in ozone reducing benefit to a 1% reduction in VOC emissions. The commenters assert that EPA's NO_x Substitution Guidance (December 1993) is flawed under section 182(c)(2)(C) of the Clean Air Act because it allows NO_x substitution without a demonstration that such substitution will in fact provide ozone reductions at least equivalent to that which would result from a 3% annual cut in VOC emissions. The commenters claim that such a demonstration requires photochemical grid modeling showing equivalency and that EPA's own guidance (*Guidance on the Post-1996 Rate-of-Progress Plan and Attainment Demonstration* (corrected version as of 2/18/94)) requires such modeling. The states cannot use a 1% NO_x for 1% VOC substitution without proving that a 1% NO_x cut will in fact provide ozone reductions at least equivalent to that resulting from a 1% VOC cut.

The commenters further assert that more recent EPA guidance dated January 10, 2000 for NO_x substitution in out-year conformity budgets requires 1.6 tons in NO_x reductions to offset 1 ton of VOC reductions. The commenters do not disavow their other comments that the states must prove the validity of

their NO_x substitution ratios as discussed in the summary of their comments in the preceding paragraph but they claim the 9% demonstration fail to use the ratio of 1.6 to 1 required by the more recent EPA guidance.

Additionally, the commenters assert that substitutions should not be allowed because the plan does not demonstrate timely attainment.

Response:

1. NO_x Substitution in General

The EPA believes States have the opportunity to substitute NO_x reductions for required VOC reductions under certain circumstances. The opportunity for NO_x substitution originates in section 182(c)(2)(C) of the CAA which specifically allows NO_x emissions reductions to be substituted for VOC reductions required under section 182(c)(2)(B) for reasonable further progress (RFP) also called rate-of-progress (ROP).

EPA issued guidance to the States on how to implement the NO_x substitution provisions for the post-1996 ROP plans in 1993 (Memorandum of December 15, 1993, from John S. Seitz re: "Transmittal of NO_x Substitution Guidance"). The guidance allows States to substitute NO_x emission reductions for VOC emission reductions if such substitution is consistent with the modeled attainment demonstration in the SIP. The modeled attainment demonstration in the SIP establishes the overall reductions of VOC and/or NO_x reductions required for attainment in the attainment year. The rate of progress plan is basically a tool to phase in emission reductions between the time the plan is prepared and the attainment date. To substitute NO_x for VOC in post-1996 ROP's, care must be taken to not substitute so much NO_x such that the attainment demonstration is no longer valid. At the extreme case, in an area for which the attainment demonstration that relies totally on VOC emission reductions, it would be inconsistent to substitute NO_x for VOC.

The NO_x substitution guidance allows substitution on a percentage basis (*i.e.*, one percent of NO_x emissions reductions for one percent of VOC emissions reductions) and does not require additional analysis of whether the ozone reduced from the NO_x emission reductions is equivalent to that which would result from the foregone VOC emission reductions.

It should be noted also that EPA's "Guidance for Improving Weight of Evidence Through Identification of Additional Emission Reductions, Not

Modeled",¹⁷ references EPA's NO_x substitution guidance for purposes of substitution of NO_x reduction for additional VOC emission reductions identified as needed for attainment.

2. Technical and Practical Reasons for NO_x Substitution Guidance

The modeling performed for attainment demonstration basically establishes the relationship between emission reductions—either of VOC, NO_x, or both—and ozone reductions. This relationship is established for the attainment year. As noted above, the modeled attainment demonstration establishes the overall VOC and/or NO_x emission targets that are consistent with attainment of the standard at the attainment year. When EPA determines that an attainment demonstration is approvable, *i.e.*, will likely demonstrate attainment for the relevant areas, it is making an implicit corollary conclusion that the mix of VOC and/or NO_x control measures included in the area's attainment demonstration is adequate.

The ROP plan is then used to phase in emission reductions between the time of plan adoption and the attainment date. EPA does not require modeling of interim years for the purpose of trying to update the NO_x/VOC/ozone relationship for a number of reasons, including the following that are provided in the 1993 NO_x substitution guidance:

- a. The strong likelihood that optimum "exchange" rates vary from year to year and across a geographic area as an area's emissions distribution and atmospheric chemistry change over time;
- b. Uncertainty in modeling analyses, particularly when attempting to ascertain responses from small percentage perturbations in emissions; and
- c. Resource limitations associated with modeling specific control measures during interim years before attainment dates.

The EPA believes these are adequate reasons for maintaining this guidance for purposes of NO_x substitution under the ROP plan requirements.

In addition, the "Major Modeling/Air Quality Conclusions" from the Ozone Transport and Assessment Group (OTAG) effort, based on extensive photochemical grid modeling of the Eastern U.S. stated that regional NO_x reductions are effective in producing ozone benefits, and that the more NO_x

¹⁷ U.S. Environmental Protection Agency Office of Air Quality Planning and Standards Emissions, Monitoring, and Analysis Division Air Quality Modeling Group Research Triangle Park, NC 27711. November 1999. Available at <http://www.epa.gov/ttn.scram/>.

reduced, the greater the benefit. [From: "Summary of Ozone Transport Assessment Group Recommendations to the U.S. Environmental Protection Agency as of June 20, 1997." Found at: <http://www.epa.gov/ttn/rto/otag/finalrpt/>.]

Recognizing that regional NO_x reductions are effective in producing ozone benefits, EPA further encouraged NO_x reductions by allowing States to credit certain regional NO_x emission reductions outside the nonattainment area for purposes of the ROP plan. See EPA's Interim Implementation Guidance. [Memorandum of December 29, 1997, from Richard D. Wilson re: "Guidance for Implementing the 1-Hour Ozone and Pre-Existing PM¹⁰ NAAQS."]

3. Legal Rationale for EPA NO_x Substitution Guidance

In addition, EPA still stands behind its legal rationale underlying the interpretation of "equivalency" that appears in the 1993 NO_x substitution guidance (see section 4 of that guidance). In that guidance, the basis for equivalency is the ability of a given control strategy (*i.e.*, any particular mix of NO_x and VOC emission reductions) to effect attainment of the ozone NAAQS by the designated attainment year (NO_x substitution guidance at page 2).¹⁸ Further, the NO_x emission reductions credited toward ROP may be limited to the amount of NO_x reductions required in the attainment demonstration; see the discussion and example above on this matter.

In allowing a combination of NO_x and VOC controls or the substitution of NO_x emissions reductions for VOC emissions reductions, Section 182(c)(2)(C) of the statute states that the resulting reductions "in ozone concentrations" must be "at least equivalent" to that which would result from the 3% VOC reductions required as a demonstration of RFP under Section 182(c)(2)(B). The

second sentence of Section 182(c)(2)(C) requires EPA to issue guidance "concerning the conditions under which NO_x control may be substituted for [or combined with] VOC control." In particular, the Agency is authorized to address in the guidance the appropriate amounts of VOC control and NO_x control needed, in combination, "in order to maximize the reduction in ozone air pollution." Further, the Act explicitly provides that the guidance may permit RFP demonstrations that allow a lower percentage of VOC emission reductions as long as compensating NO_x reductions are achieved. In light of the entire set of language and Congress's evident intent under this subsection to maximize the opportunity for ozone reductions, EPA believes that Section 182(c)(2)(C) confers on the Agency the discretion to select, for purposes of determining equivalent reductions, a percentage of NO_x emission reductions that is reasonably calculated to achieve both the ozone reduction and attainment progress goals intended by Congress.

As noted above, when EPA determines that an attainment demonstration is approvable, it is making an implicit corollary conclusion that the mix of VOC and/or NO_x control measures included in the area's attainment demonstration is adequate.

EPA disagrees with the comments that EPA's *Guidance on the Post-1996 Rate-of-Progress Plan and Attainment Demonstration* (corrected version as of 2/18/94) requires a different test than EPA's December 15, 1993 NO_x Substitution Guidance. In section 4.1 of the *Guidance on the Post-1996 Rate-of-Progress Plan and Attainment Demonstration*, EPA restated the equivalency test set forth in sections 2 and 3 of our December 1993 NO_x Substitution Guidance. With regard to the photochemical grid modeling, section 4.1 of the *Guidance on the Post-1996 Rate-of-Progress Plan and Attainment Demonstration* reads:

Section 182(c)(2)(C) states that actual NO_x emission reductions which occur after 1990 can be used to meet post-1996 emission reduction requirements, provided that such reductions meet the criteria outlined in EPA's December 15, 1993 NO_x Substitution Guidance. The condition for meeting the rate-of-progress requirement is that the sum of all creditable VOC and NO_x emission reductions must equal 3 percent per year averaged over each applicable milestone period. The percent VOC reduction is determined from the VOC rate-of-progress inventory and the percent NO_x reduction is determined

from the NO_x rate-of-progress inventory. In addition, the overall VOC and NO_x reductions must be consistent with the area's modeled attainment demonstration. In other words, the NO_x emission reductions creditable toward the rate-of-progress plan cannot be greater than the cumulative reductions dictated by the modeled attainment demonstration.

This portion of the 1994 guidance merely summarizes the guidance provided in our December 1993 NO_x Substitution Guidance. With regard to the photochemical grid modeling, section 2 of our December 1993 NO_x Substitution Guidance reads:

The provision for NO_x substitution recognizes that a VOC-only control pathway may not be the most effective approach for effecting attainment in all areas. Consequently, NO_x reductions are placed on a near equal footing with VOC through substitution. This document establishes two conditions pursuant to both the substitution and RFP provisions in the Act. The first condition requires that control strategies incorporating NO_x emission reduction measures must demonstrate that the ozone NAAQS will be attained within time periods mandated by the Act. This condition reflects the Title I provision for gridded photochemical model demonstrations (Section 182(c)).

The second condition, addressed below in Section 3, maintains the requirement for periodic emission reductions in order to realize progress toward attainment. Flexibility is introduced by allowing VOC and NO_x reductions rather than VOC reductions alone. A third condition exists in which the periodic emission reductions must be consistent with the model attainment demonstration.

In both cases, the guidance refers to the photochemical grid modeling that is necessary for the modeled attainment demonstration and that establishes the NO_x/VOC/ozone relationship at the attainment date. The NO_x substitution guidance does not require a modeled demonstration of equivalence for interim period for the reasons discussed above.

4. January 10, 2000, Guidance on Conformity Budgets in Out-Years

The January 10, 2000 guidance (Memorandum from G.T. Helms to Marcia Spink re: "Substitution of Nitrogen Oxide (NO_x) Emission Reduction in Out-Year Conformity Budgets") was developed to address a question related to development of an emissions budget for conformity purposes well beyond the attainment date of an area. Transportation planning cycles generally run beyond the attainment year, and a State may establish a budget for conformity

¹⁸This incidentally is consistent with the intended outcome of the NO_x substitution guidance document, which requires that substitution be done on the basis of percentage—a 1 percent reduction in NO_x from the 1990 ROP baseline adjusted to 1999 of 667.3 tons/day (6.67 tons/day) will thus likely produce a greater reduction in ozone than a 1 percent reduction in VOC from the 1990 ROP baseline adjusted to 1999 of 435.7 tons a day (4.36 tons/day). [Baseline emissions taken from memoranda of August 24, 2000, from Christopher Cripps, re: "Technical Support Document for the Approval of the Post-1996 Rate-of-Progress Plan for the District of Columbia portion of the Metropolitan Washington, DC Nonattainment Area (DC 035-2015, DC 044-2015)." and of October 13, 2000, from Janice Lewis, re: "Technical Support Document for Approval and Promulgation of Air Quality Implementation Plans; Maryland, and Virginia; Post-1996 Rate-of-Progress Plan for the Metropolitan Washington, DC Area (MD 058-3036 and VA 083-5038)."]

purposes in those out years beyond the attainment year if it desires and may substitute NO_x for VOC reductions in that out-year budget. The January 10, 2000 guidance refers to the methodology contained in "Guidance for Improving Weight of Evidence Through Identification of Additional Emissions Reductions, Not Modeled" (EPA, November 1999) and was not intended for use in ROP demonstrations; the methodology was developed for use in strengthening weight of evidence arguments for attainment demonstrations. The January 10, 2000 guidance contemplates use of this methodology for establishing conformity budgets for the out-years of an attainment demonstration, *i.e.*, the years after the attainment date for which there are no ROP requirements unless the area fails to attain as determined by the relevant air quality monitoring data. The guidance may result in NO_x substitution ratios of other than one-to-one, since it is based on the results of the modeled attainment demonstration. EPA's methodology for use in strengthening weight of evidence arguments for attainment demonstrations was intended to be used for calculating small amounts of emission reductions such that the overall NO_x/VOC/ozone relationship of the modeling used in the attainment demonstration would not be significantly altered. Likewise, the substitution of NO_x for VOC reductions for purposes of setting an emissions budget for conformity in the out-years beyond the attainment date would likely involve relatively small tons/day shifts in the ratio of NO_x to VOC. Thus EPA's methodology would be appropriate to use for this purpose. It should be noted that this methodology provides most reliable results when used with the best and most recent data.

Of course, any future emissions budget for a period years after the projected attainment year has uncertainty. If EPA subsequently finds that an area is not making sufficient progress toward attainment and its SIP is inadequate, or if ultimately the area does not attain the standard by its attainment date, the area will be required to revise its SIP. At that time, a new modeled attainment demonstration would be required, together with updated modeling that would re-establish a new NO_x/VOC/ozone relationship.

Furthermore, once an area attains the standard, the State may request redesignation to attainment. To obtain that redesignation, one requirement is that the State must submit an approvable air quality maintenance plan to ensure that the standard will be

maintained for at least a 10-year period. The maintenance plan will establish an out-year emission budget for conformity based on conditions at the time of attainment.

5. NO_x Substitution in Metropolitan Washington

Based on our review of all the information submitted in the attainment demonstration, it is the Agency's belief that the ozone reduction benefits achieved by application of NO_x controls is at least equivalent as that achieved by application of VOC controls.

The modeled attainment demonstration for the Metropolitan Washington, D.C. area calls for more NO_x and VOC emissions control than the 9 percent post-1996 ROP plan. The ROP plan relies on NO_x substitution, but the substitution rate is consistent with the attainment demonstration in that it does not provide any more NO_x reductions than called for in the attainment demonstration. The state's attainment demonstration is based upon local-scale photochemical grid modeling performed on the Baltimore-Washington Urban Airshed Modeling (UAM) domain and upon EPA's Regional Oxidant Modeling (ROM) results. Both EPA's ROM results and the photochemical grid modeling submitted with the attainment plan show that significant NO_x reductions will contribute to attainment in the area. The local UAM modeling also shows that NO_x reductions beyond those contained in the Post-1996 plan continue to provide reductions in ozone concentrations. The local photochemical grid modeling submitted with the attainment demonstration contains modeling results that further support the conclusion that on a ton for ton basis, NO_x reductions achieve at least equivalent changes in ozone concentrations as an equivalent reduction in VOC emissions.¹⁸

¹⁸ This incidently is consistent with the intended outcome of the NO_x substitution guidance document, which requires that substitution be done on the basis of percentage—a 1 percent reduction in NO_x from the 1990 ROP baseline adjusted to 1999 of 667.3 tons/day (6.67 tons/day) will thus likely produce a greater reduction in ozone than a 1 percent reduction in VOC from the 1990 ROP baseline adjusted to 1999 of 435.7 tons a day (4.36 tons/day). [Baseline emissions taken from memoranda of August 24, 2000, from Christopher Cripps, re: "Technical Support Document for the Approval of the Post-1996 Rate-of-Progress Plan for the District of Columbia portion of the Metropolitan Washington, DC Nonattainment Area (DC 035–2015, DC 044–2015)." and of October 13, 2000, from Janice Lewis, re: "Technical Support Document for Approval and Promulgation of Air Quality Implementation Plans; Maryland, and Virginia; Post-1996 Rate-of-Progress Plan for the Metropolitan Washington, DC Area (MD 058–3036 and VA 083–5038)."]

Also, model sensitivity analysis demonstrates that the Metropolitan Washington portion of the Baltimore-Washington modeling domain benefits more from NO_x reductions than VOC reductions. See Attachment 4 ("Model Sensitivity Study for Metropolitan Washington Area") of the EPA document, "RACM Analysis for Four Serious Areas Designated Nonattainment for 1-hr Ozone NAAQS." U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711; and Office of Transportation and Air Quality, Ann Arbor, MI 48105. October 12, 2000. An electronic version of EPA's RACM analysis cited above can be downloaded at www.epa.gov/ttn/rto under "What's New." This analysis does not contradict EPA's determination that a one percentage reduction of NO_x emissions will likely produce a greater reduction of ozone than a one percent reduction of VOC emissions.

EPA is determining that the attainment demonstration is approvable, *i.e.*, will likely demonstrate attainment for the Metropolitan Washington, D.C. area. Implicit in making this determination, is a corollary conclusion that the mix of VOC and/or NO_x control measures included in the area's attainment demonstrations is adequate. Based on review of all the information submitted in support of the attainment demonstration, it is the Agency's belief that the percentage of ozone reduction benefits achieved by application of NO_x controls, for both ozone reduction and attainment progress goals, is "at least equivalent" as that achieved by application of VOC controls. Both the NO_x and VOC controls are necessary if the area is to realize ozone reduction benefits and attain the NAAQS.

The commenter submitted a memorandum, dated January 13, 2000, from Joan Rohlfs, Chief Air Quality Planning, Metropolitan Washington Council of Governments, to the Technical Advisory Committee, Metropolitan Washington Air Quality Committee, entitled "Calculating the NO_x Substitution Ratio for Out-Year Conformity Budget in the Washington Nonattainment Area", in which a 1.64 to 1 ratio was calculated for the Washington, D.C. area based upon the January 10, 2000 guidance. On March 22, 31, and 31, 2000, respectively, the District, Maryland and Virginia submitted a SIP revision with budgets for years after 2005 that used substitution at the 1.64:1 ratio. EPA has not yet taken rulemaking action on the portion of that submittal that deals with the out-year budgets. As noted above, the use of this 1.64:1 ratio, calculated

from the January 2000 guidance, is not applicable for purposes of the ROP plan.

6. Assertion of Metropolitan Washington Plan Fails To Demonstrate Attainment

EPA disagrees with the assertion that the attainment plan does not demonstrate attainment. The TSD and other documents in the docket support the conclusion that the area will attain. Further reasoning is also set forth in responses to other comments elsewhere in this notice.

N. NO_x Reduction Credits

Comment: We received comments that both the attainment and rate-of-progress (ROP) demonstrations are further flawed because they rely on emission reductions from control measures that have not been fully approved by EPA as part of the SIP. These measures include NO_x RACT rules for all three Metropolitan Washington, DC area states. The EPA cannot credit the SIP with NO_x reductions until the state adopts source specific RACT limits.

Response: The EPA recently signed a final action approving Maryland's, Virginia's and the District's RACT regulations all sources subject to RACT in the Metropolitan Washington, DC area. The action has been or will be published shortly in the **Federal Register**.

O. Attainment Demonstration and Rate of Progress

Comment 1: We received comments that assert that both the attainment demonstration and rate of progress plan for the Washington DC nonattainment area rely on emission reductions from control measures that have not been fully approved by EPA as part of the SIP.

Response 1: The EPA recently signed a final action fully approving the District's, Maryland's and Virginia's post-1996 ROP plan. These plans were credited with reductions from only those measures that have been fully approved into the SIP.

The EPA recently approved the District's, Maryland's and Virginia's NO_x RACT rules. Maryland's NO_x RACT rule has been amended since 1999. The District's final rule was amended since 1999. The EPA recently approved source specific emission limits for the major sources of NO_x in the Virginia portion of the Metropolitan Washington, DC area. The EPA recently signed a final action approving these rules. The action has been or will be published shortly in the **Federal Register**.

The EPA recently approved the District's and Maryland's NO_x reduction measures that require NO_x reductions from stationary sources beyond those required under RACT. The EPA recently signed a final action approving these rules. The action has been or will be published shortly in the **Federal Register**.

For purposes of the Metropolitan Washington, DC attainment demonstration, the EPA has not granted any reduction credits from Virginia's non-CTG VOC RACT rule except to the extent source-specific RACT limits or in the case of lithographic printing operations a category-specific RACT limits have been approved by EPA. [See 40 CFR 52.2520 (c)(128), and (c)(113)]. In addition, EPA recently approved a source specific RACT determination for another source subject to the 50 TPY non-CTG RACT for which Virginia takes no credit.

Comment 2: We received comments that state there are significant disparities between the projections of 1999 regional emissions found in the most recent 9% ROP plan for the Metropolitan DC area and the EPA's Technical Support Document for the attainment demonstrations. The commenter claims that lower emissions in the TSD for the December 16, 1999 NPR, should not be used unless EPA provides an adequate technical basis.

Response 2: A large part of the disparity is that the ROP plan does not take credit for all the measures implemented by 1999. However, those measures can be credited for attainment. Specifically, the ROP demonstration only requires the area to achieve a NO_x emissions level of 614.7 tons per day whereas attainment requires an emissions level of 538 tons per day. The States and the District have specifically identified beyond the RACT reductions at large point sources of NO_x that have not been counted towards the ROP demonstration. These reductions are quantified at 93 tons per day. Other control programs such as the surface cleaning and degreasing rules in Virginia and the Stage I reductions in Loudoun County, Virginia, resulted in emission reductions by 1999. However, Virginia elected not to claim credit for the surface cleaning rule in the final version of the Post-1996 plan (which EPA is approving), and the Stage I reductions are not creditable towards the 9% reduction requirement (because it is a RACT correction subject to the restrictions of section 182(b)(1)(D)). However, these measures are creditable for purposes of the attainment demonstration. EPA's approval of the attainment demonstration is based upon

the February 2000 amendments to the SIP. The SIP amendments show that in 2005, the area can achieve the emission levels less than the levels in the modeled demonstration of attainment. The SIP amendments account for growth in emissions from 1990 through 2005, as well as more recent planning assumptions and modeling assumptions used in the development of the mobile source emissions budgets. They also provide a reevaluation of the control measures.

P. Modeling Assumptions

Comment 1: We received comments saying that the (Transportation) model does not incorporate adequate assumptions about the effects of land development and new road projections on the growth of vehicle travel and citing to an EPA letter from Judith Katz, Director, Air Protection Division, EPA Region III to James Cheatham, Divisional Administrator, Federal Highway Administration dated August 27, 1998, in which the commenters assert that EPA stated that the plans did not include any information on the rate of land development in the Washington Region and the effect this development will have on the transportation system. The comments discuss the transportation model's land use assumptions, and imply that the Metropolitan Planning Organization (the Metropolitan Washington Council of Governments, MWCOC) (hereafter, "the MPO") has not included the effects of land use in the model and that EPA has known about this issue since 1998.

Response 1: This August 27, 1998, EPA letter to the MPO concerned EPA's review of the conformity determination on the FY99-04 Transportation Improvement program (TIP) as well as the Long Range Transportation Plan. Planning assumptions in a TIP must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other agency authorized to make such estimates and approved by the MPO. Likewise, the conformity rule, 40 CFR 93.118(e)(4)(ii), requires SIP motor vehicle emissions budgets to be developed in consultation with federal, state and local agencies such as the MPO in order to be adequate and approvable. Based on EPA reviews of the most recently approved Transportation Improvement programs (TIPs) as well as the Long Range Transportation Plans in the Washington, DC area, EPA is satisfied that the MPO through its land activity forecasts, provides timely information on growth and land use, through consultation with all of its regional county planners.

These same forecasts are used for both the development of SIP motor vehicle emissions budget as well as the determination that a TIP conforms. Therefore, while the estimates of land use activity are not done by modeling, their process of estimating land use activity does not violate the requirements of the conformity rule which was the context in which this August 27, 1998 letter was sent, and therefore EPA can find no reason to agree with any assertion or implication that the transportation model, used by the MPO to develop any SIP budgets in 1999 or 2005, is deficient. Furthermore, this August 27, 1998, EPA letter to the MPO does not have any relevance in this instance because the letter targets the lack of any clear graphic display of information in the transportation plans rather than the absence of information for the transportation model to use.

Comment 2: We have received comments saying that the temperature assumed in the mobile source modeling inputs was 93 degrees (Fahrenheit), yet the maximum recorded temperatures for those days during which peak ozone values in the 1999 ozone season were recorded were higher (96 to 98 degrees).

Response 2: EPA disagrees with the comment that this is a reason to determine that the budgets are not approvable. EPA guidance on projecting all future mobile source emissions inventories requires the States to use the temperatures representative of a "typical ozone season day". See section 3.3.5.2 of *Procedures for Emission Inventory Preparation Volume IV: Mobile Sources*, EPA-450/4-81-026d (Revised), 1992 which also sets the procedure for determining the temperature for the 1990 base year and all subsequent projection inventories. The typical ozone season day conditions are those used when determining the typical daily emissions for the 1990 base year emissions inventory. For 1990 inventories, the period to be used for temperature determination was 1988-1990. The same typical season day is also used when setting target levels of emissions in ROP plans and all future year projection inventories in ROP plans and attainment demonstrations. EPA believes it is reasonable to use these typical ozone season day temperatures rather than actual future year temperatures in projecting future emissions since these projections are made in advance when actual temperatures cannot be known.

Q. NO_x RACT Size Cutoff

Comment: All of the States should extend NO_x RACT to 25 ton per year sources. In addition, the SIP must

require Virginia to extend VOC RACT to 25 ton per year sources, like Maryland.

Response: The Clean Air Act does not require that serious areas extend NO_x or VOC RACT to 25 tons per year sources within serious classifications. Virginia's approved SIP has extended VOC RACT to 25 ton per year sources in the Washington, DC area. In addition, in section II. E. discussing RACM, EPA has determined that Maryland, Virginia and the District have met the RACM requirements.

R. NO_x Reduction Credits

Comment: We received comments that both the attainment and rate-of-progress (ROP) demonstrations are further flawed because they rely on emission reductions from control measures that have not been fully approved by EPA as part of the SIP. These measures include NO_x RACT rules for all three Metropolitan Washington, DC area states. EPA cannot credit the SIP with NO_x reductions until the state adopts source specific RACT limits.

Response: EPA has approved SIP revisions for all sources subject to RACT in the Metropolitan Washington, DC area subject to Maryland's, Virginia's and the District's RACT regulations. On December 14, 2000, the Regional Administrator signed a final action approving the District's NO_x RACT rule. That action has been or will be published shortly in the **Federal Register**. On December 15, 2000, the Regional Administrator signed final actions approving Maryland's and Virginia's NO_x RACT rules. The Virginia final approval also included RACT determinations for Non-CTG major VOC sources. These actions have been or will be published shortly in the **Federal Register**.

S. Control Measures

Comment 1: We received comments claiming that the states have failed to submit lists of potential control measures by December 31, 1999 as required by EPA's condition. The comments state that the states submitted commitments to adopt additional control measures if needed, but did not provide lists from which those measures would be chosen and further state that because the states have failed to meet a condition that EPA itself set as a prerequisite for plan approval, EPA must disapprove the Washington area SIP.

Response 1: The list of control measures is related only to the adequacy determination of the attainment year budgets. The States have now adopted all regulations on which they rely for

attainment. In section I.C.5 of the proposed rulemaking we stated:

"For purposes of conformity, if the states submitted a commitment, which has been subject to public hearing, to adopt the control measures necessary for attainment and ROP through the area's attainment date in conformance with the December 1997 Wilson policy, the State will not need an additional commitment at this time. However, the states will need to amend its commitment by letter to provide two things concerning the additional measures.

First, the State will need to identify a list of potential control measures (from which a set of measures could be selected) that when implemented, would be expected to provide sufficient additional emission reductions to meet the level of reductions that EPA has identified as necessary for attainment. States need not commit to adopt any specific measures on their list at this time, but if they do not do so, they must identify sufficient additional emission reductions to attain the standard with the submitted motor vehicle emissions budget. These measures may not involve additional limits on highway construction beyond those that could be imposed under the submitted motor vehicle emissions budget." (64 FR at 70467, December 16, 1999).

Likewise in Table 2 of section I.D. the list of measures was tied to the making of a finding of adequacy that the motor vehicle emissions budgets are consistent with attainment.

Elsewhere, in section I.C.3 the December 16, 1999 NPR we spelled out the importance of making an adequacy finding by May 31, 2000:

Therefore, EPA is proposing, in the alternative, to disapprove the attainment demonstration SIPs for those nine areas if the States do not submit motor vehicle emissions budgets that EPA can find adequate by May 31, 2000.¹¹ In order for EPA to complete the adequacy process by the end of May, States should submit a budget no later than December 31, 1999.¹² If an area does not have a motor vehicle emissions budget that EPA can determine adequate for conformity purposes by May 31, 2000, EPA plans to take final action at that time disapproving in full or in part the area's attainment demonstration. (64 FR at 70465, December 16, 1999.) (Footnote 11 read as follows: For severe areas, EPA will determine the adequacy of the emissions budgets associated with the post-1999 ROP plans once the States submit the target calculations, which are due no later than December 2000. Footnote 12 read as follows: A final budget is preferred; but, if the State public hearing process is not yet complete, then the draft budget for public hearing may be submitted. The adequacy process generally takes at least 90 days. Therefore, in order for EPA to complete the adequacy process no later than the end of May, EPA must have by February 15, 2000, the final budget or a draft that is substantially similar to what the final budget will be. The State must submit the final budget by April 15, 2000.)

Through the adequacy process the public had an opportunity to comment on the lists of potential control measures. The states identified all the potential control measures in Tables A, 6-1 and 6-2 of the SIP revision submittals of the plan document entitled "State Implementation Plan (SIP) Revision, Phase II Attainment Plan for the Washington DC-MD-VA Nonattainment Area"—dated February 3, 2000, by which the budgets were submitted by the District, Maryland and Virginia on February 16, 2000, February 14, 2000, and February 9, 2000, respectively. These tables identified a number of control measures most of which had been either promulgated by EPA, or adopted and submitted by the states as SIP revisions on February 3, 2000. Not all of the remaining measures are necessary to make the motor vehicle emissions budgets consistent with attainment. EPA made the requisite findings of adequacy (65 FR 36439, June 8, 2000).

Disapproving the SIP for the sole reason that the lists were not submitted by December 31, 1999, would place the states in a situation where the states would have no ability to remedy the disapproval because the States have adopted and EPA has approved all measures needed to make the motor vehicle emissions budgets approvable. EPA disagrees that the attainment demonstration SIPs should be disapproved because the states have failed to submit lists of potential control measures by December 31, 1999.

Comment 2: We received Comments that assert that both the attainment demonstration and rate of progress plan for the Washington D.C. nonattainment area rely on emission reductions from control measures that have not been fully approved by EPA as part of the SIP.

Response 2: Today, EPA is fully approving the District's, Maryland's and Virginia's post-1996 ROP plan. These plans were credited with reductions from only those measures that have been fully approved into the SIP.

In recent **Federal Register** notices, EPA has fully approved the District's, Maryland's and Virginia's NO_x RACT rules. Maryland's NO_x RACT rule has been amended since 1999. The District's final rule was amended since 1999. The EPA has approved source specific emission limits for the major sources of NO_x in the Virginia portion of the Metropolitan Washington, DC area.

In recent **Federal Register** notices, EPA has approved the District's and Maryland's NO_x reduction measures that require NO_x reductions from

stationary sources beyond those required under RACT.

For purposes of the Washington, DC attainment demonstration, the EPA has not granted any reduction credits from Virginia's non-CTG VOC RACT rule except to the extent source-specific RACT limits or in the case of lithographic printing operations a category-specific RACT limits have been approved by EPA. [See 40 CFR 52.2520(c)(128), and (c)(113)]. In addition, in a recent **Federal Register** notice, EPA has approved a source specific RACT determination for another source subject to the 50 TPY non-CTG RACT for which Virginia takes no credit. On December 15, 2000, the Regional Administrator signed final actions approving RACT for this source along with Virginia's NO_x RACT rules. This action has been or will be published shortly in the **Federal Register**. (The Virginia attainment plan also includes credits from a source that would have been subject to the 50 TPY non-CTG VOC RACT requirement but that shut-down in 1991.)

T. MOBILE6 and the Motor Vehicle Emissions Budgets (MVEBs)

Comment 1: One Commenter generally supports a policy of requiring motor vehicle emissions budgets to be recalculated when revised MOBILE models are released.

Response 2: The Phase II attainment demonstrations that rely on Tier 2 emission reduction credit contain commitments to revise the motor vehicle emissions budgets after MOBILE6 is released.

Comment 3: The revised budgets calculated using MOBILE6 will likely be submitted after the MOBILE5 budgets have already been approved. EPA's policy is that submitted SIPs may not replace approved SIPs.

Response 3: This is the reason that EPA proposed in the SNPR (65 FR 46383) that the approval of the MOBILE5 budgets for conformity purposes would last only until MOBILE6 budgets had been submitted and found adequate. In this way, the MOBILE6 budgets can apply for conformity purposes as soon as they are found adequate.

Comment 4: If a State submits additional control measures that affect the motor vehicle emissions budget but does not submit a revised motor vehicle emissions budget, EPA should not approve the attainment demonstration.

Response 4: EPA agrees. The motor vehicle emissions budgets in the Metropolitan Washington, DC area attainment demonstration reflect the

motor vehicle control measures in the attainment demonstration.

Comment 5: EPA should make it clear that the motor vehicle emissions budgets to be used for conformity purposes will be determined from the total motor vehicle emissions reductions required in the SIP, even if the SIP does not explicitly quantify a revised motor vehicle emissions budget.

Response 5: EPA will not approve SIPs without motor vehicle emissions budgets that are explicitly quantified for conformity purposes. The Metropolitan Washington, DC area attainment demonstration contains explicitly quantified motor vehicle emissions budgets which EPA has found adequate (64 FR 62196).

Comment 6: If a state fails to follow through on its commitment to submit the revised motor vehicle emissions budgets using MOBILE6, EPA could make a finding of failure to submit a portion of a SIP, which would trigger a sanctions clock under section 179.

Response 6: If a state fails to meet its commitment, EPA could make a finding of failure to implement the SIP, which would start a sanctions clock under section 179 of the Clean Air Act.

Comment 7: If the budgets recalculated using MOBILE6 are larger than the MOBILE5 budgets, then attainment should be demonstrated again.

Response 7: As EPA proposed in its December 16, 1999 notices, we will work with States on a case-by-case basis if the new emissions estimates raise issues about the sufficiency of the attainment demonstration.

Comment 8: If the MOBILE6 budgets are smaller than the MOBILE5 budgets, the difference between the budgets should not be available for reallocation to other sources unless air quality data show that the area is attaining, and a revised attainment demonstration is submitted that demonstrates that the increased emissions are consistent with attainment and maintenance. Similarly, the MOBILE5 budgets should not be retained (while MOBILE6 is being used for conformity demonstrations) unless the above conditions are met.

Response 8: EPA agrees that if recalculation using MOBILE6 shows lower motor vehicle emissions than MOBILE5, then these motor vehicle emission reductions cannot be reallocated to other sources or assigned to the motor vehicle emissions budget as a safety margin unless the area reassesses the analysis in its attainment demonstration and shows that it will still attain. In other words, the area must assess how its original attainment demonstration is impacted by using

MOBILE6 vs. MOBILE5 before it reallocates any apparent motor vehicle emission reductions resulting from the use of MOBILE6. However, if the state is not required to remodel with MOBILE6 because the attainment demonstration does not rely on Tier II reductions, the conformity rules do require the use of MOBILE6 for conformity after any established grace period even if the SIP is based on MOBILE5. The state is not required to revise the SIP merely because a new mobile model becomes available.

U. MOBILE6 Grace Period

Comment 1: We received a Comment on whether the grace period before MOBILE6 is required in conformity determinations will be consistent with the schedules for revising SIP motor vehicle emissions budgets (“budgets”) within 1 or 2 years of MOBILE6’s release. This Commenter was concerned that MOBILE6 could be required for conformity before new budgets were submitted based on MOBILE6.

Response 1: The MOBILE6 grace period for conformity determinations is a separate requirement that is not explicitly tied to EPA’s SIP policy and approvals. However, it is important to note that the transportation conformity rule requires EPA to consider many factors in establishing the length of the grace period before MOBILE6 is required in conformity, including the degree of change in emissions models and scope of re-planning likely to be necessary by transportation agencies (40 CFR 93.111). The grace period must be between 3–24 months, and EPA understands that a longer grace period would allow some areas to better transition to new MOBILE6 budgets. EPA will be taking the 1–2 year period provided for in the SIP approvals into account in establishing an appropriate grace period for conformity.

Comment 2: One Commenter asked EPA to clarify in the final rule whether MOBILE6 will be required for conformity determinations once new MOBILE6 budgets are submitted and found adequate. The Commenter wanted clarification on the case where the MOBILE6 conformity grace period ends before new budgets are submitted based on MOBILE6. The Commenter thought that this situation could necessitate the use of the emission reduction tests (e.g., build/no-build test) for conformity analyses, instead of using the budgets based on MOBILE5b. The Commenter stated that using the build/no-build test instead of existing budgets that are based on MOBILE5b is less appropriate for air quality planning purposes.

Response 2: The transportation conformity rule requires adequate budgets to be used in regional emissions analysis, when they exist, regardless of what emissions model was used to establish the budgets. In the example highlighted by the Commenter, the MOBILE5b budgets would be required for conformity purposes if they were the only applicable budgets at the end of the MOBILE6 grace period. Thus, the conformity analysis would compare future reductions under a proposed transportation plan or TIP calculated with MOBILE6 against the SIP budgets developed with MOBILE5. This has always been required by the conformity rule once the grace period for a new model has passed. Once budgets have been established, the build/no-build test is no longer applicable. See 40 CFR 93.111 of the transportation conformity rule. During the grace period, areas should use the consultation process to address any future conformity impacts of using the new emissions model.

V. Two-Year Option To Revise the MVEBs

Comment: One Commenter did not prefer the additional option for a second year before the state has to revise the conformity budgets with MOBILE6, due to several concerns. The Commenter cited that the air agency did not select this option and had already submitted a commitment to revise the conformity budgets with MOBILE6.

Response: EPA proposed the additional option to provide further flexibility in managing MOBILE6 budget revisions. The supplemental proposal did not change the original option to revise budgets within one year of MOBILE6’s release. State and local governments can continue to use the 1-year option, if desired, or submit a new commitment consistent with the alternative 2-year option.

W. RACM

Comment: The Phase II NO_x limits agreed to by OTC are also clearly RACM.

Response: With respect to the OTC MOU Phase II NO_x limits in the Metropolitan Washington, DC nonattainment area, Maryland and the District have adopted programs to implement the Phase II NO_x reduction in the OTC memorandum of understanding. EPA has approved these programs into Maryland’s and the District’s SIPs. Virginia was not a party to the OTC MOU. However, in permits approved into the Virginia SIP, Virginia has imposed beyond RACT requirements on two large point sources of NO_x in the Virginia portion of the

Metropolitan Washington nonattainment area. These permits impose limits of 0.15 pounds of NO_x per million BTU heat input on these two sources. Such limits go beyond the OTC Phase II limits. An analysis of whether these SIP approved measures is RACM for the area is moot, since the States and the District have adopted the Phase II NO_x limits (in the case of Maryland and the District of Columbia) or measures consistent with these limits (in the case of Virginia). There is additional discussion elsewhere of the RACM requirement in relationship to electric generating units.

X. Additional Comments on the Rate of Progress Plan

Comment 1: We received Comments that asserted EPA cannot act on the District’s, Maryland’s and Virginia’s Post-1996 ROP plan in isolation because the Post-1996 ROP plan for the Washington area was developed using a regional approach. EPA cannot know whether these requirements are met unless it acts on all three plans simultaneously.

Response 1: The Comment is moot because EPA is concurrently approving the District’s, Maryland’s and Virginia’s submittals the Post-1996 plan for the Metropolitan Washington, DC serious nonattainment area in one final action published in the **Federal Register**.

Comment 2: We received Comments that certain modeling cited by EPA’s proposed approval do not show that a 1% reduction in NO_x emissions provides the same ozone reduction benefit as a 1% reduction in VOC emissions, and that these results address post-1999 conditions—not 1996–99 conditions, and that one cannot reliably extrapolate back from the modeled results to the reductions at issue in the 9% plan. The Comments also assert there must be photochemical grid modeling of the actual substitution being proposed “to determine the extent to which NO_x can be substituted for VOC. These Comments also note these model results themselves show that NO_x reductions sometimes actually lead to an increase in the number of cells exceeding the ozone standard.

Response 2: EPA proposed approval of the District’s, Maryland’s and Virginia’s Post-1996 ROP plan for the Metropolitan Washington, DC area based upon the modeling results from the attainment demonstration and conformance of the NO_x substitution to EPA’s December 1993 “NO_x Substitution Guidance” which was issued pursuant to section 182(c) of the Act. In the notice of proposed rulemaking EPA stated:

"EPA's guidance requires that the amount of substituted NO_x reductions in the Post-1996 plan be less than or equal to the amount of NO_x reductions needed to attain the national ozone standard. The amount of NO_x reductions needed for attainment must be demonstrated by photochemical grid modeling. The District's demonstration that the NO_x substitution is based upon local scale modeling performed on the Baltimore-Washington Urban Airshed Modeling (UAM) domain and upon EPA's Regional Oxidant Modeling (ROM) results. Both EPA's ROM results and the photochemical grid modeling submitted with the attainment plan show that significant NO_x reductions will contribute to attainment in the area."

[and,

"Post-1996 plan substitutes fewer NO_x reductions than assumed in the attainment plan modeling."

(See 65 FR at 58245 to 58246, September 28, 2000, and see 65 FR 62660 to 62661, October 19, 2000.)

In the TSDs for the proposed rulemaking actions, EPA compared the NO_x substitution in the Post-1996 plan to the NO_x reductions assumed in the attainment demonstration. EPA noted that the Post-1996 plan assumed less NO_x reduction than the photochemical grid modeling supporting the attainment demonstration or, when stated another way, the target level (*i.e.*, ROP allowable) of NO_x emissions is higher than the NO_x emissions allowed by the attainment demonstration modeling. See section III.C.3.b and 3.c of the TSDs for the proposed actions.

EPA does not believe that the presence of an ozone increase in four modeling grid cells on one episode day is sufficient cause to disapprove the Post-1996 plan on the grounds that NO_x reductions do not provide equivalent ozone concentration benefits. Under EPA's December 1993 NO_x Substitution Guidance, which is the basis for approving the Post-1996 plan, it is only necessary to show equivalency for one of the episodes selected for the attainment demonstration. This follows because the attainment strategy ultimately selected must show predicted ozone to be less than or equal to the standard for all selected episodes.

Comment 3: We received comments that assert that although the plan cites various rules and programs that have been adopted to reduce emissions, it does not demonstrate that actual compliance with the rules and implementation of necessary programs will be achieved by the deadline or that claimed emission reductions will be fully realized by that date. We received comments that assert that EPA can only credit these plans with reductions actually achieved by November 15,

1999. We also received general comments that the ROP plan cannot be approved because programs on which the area relies for ROP credit were not approved by EPA until after November 15, 1999, thus the programs were not federally enforceable during the 1996–99 ROP period. Comments concerning specific measures and EPA's responses are summarized separately. Finally, the commenters suggest that certain programs may not have achieved the level of reductions for which credit was taken in the ROP plan.

Response 3: An ROP SIP is a projection that the State has a SIP to achieve an emissions target based upon projections of future year activity. In other words, the ROP analysis is forward-looking. The CAA has other provisions that require a backward look at what were the actual emissions in an area during a milestone year and whether a milestone was met or not. Determination of actual emissions for a milestone year is the subject of the periodic inventory requirement of section 182(a)(3) and the requirements of section 182(g) concerns milestone compliance.

For approving ROP plans, EPA views implementation dates as the date sources are required to comply with rule. In general, when reviewing a SIP submission with enforceable regulations, EPA does not separately analyze whether sources are in fact complying with the adopted regulations. The Act provides relief against sources that fail to comply, such as enforcement action and penalties. See CAA 304. In addition, if EPA determines that a State is failing to require sources to comply with an approved plan, EPA may make a finding of failure to implement under section 179(a), which would trigger the possible imposition of sanctions.

Preparation of the Post-1996 ROP SIP for the Metropolitan Washington, DC area commenced prior to the start of calendar year 1999 and was formally adopted in April and submitted in May 1999. Thus, the ROP SIP prepared for the area was a forward-looking projection that the 9% ROP requirement for the three year period from November 1996 to November 1999 would occur. The rules relied on in the plan were required to be implemented prior to November 15, 1999.

EPA is not required to disapprove an area's SIP simply because EPA did not act on the SIP revision prior to the statutory timeframe for the reductions. If EPA disapproves a SIP, the area is subject to sanctions and EPA is required to promulgate a FIP. Sanctions will not be imposed (or will be lifted) and EPA will not be required to promulgate a FIP

(or the FIP can be replaced) if the State(s) submit a SIP that corrects the deficiency that was the basis for the disapproval and EPA approves the SIP. It would be impossible for a State to ever correct a disapproval based on EPA's failure to approve the SIP by an earlier date. Moreover, if EPA were to then promulgate a FIP, the FIP would not be federally enforceable during the compliance timeframe contemplated by the statute. For these reasons, EPA does not believe that it is precluded from approving the SIP simply because November 1999 has passed.

As provided below, EPA believes that the measures on which the Metropolitan Washington, DC area relied for credit in the post-1996 plan were scheduled to achieve the necessary reductions prior to November 1999. However, EPA notes that even if it had found that there was a shortfall in the plan, the best remedy at this juncture would be to allow credit for other measures that were not relied upon, but that achieved reductions prior to 1999. If sufficient actual reductions occurring by the milestone date did not exist, then Maryland, Virginia or the District could only get reductions after the milestone deadline because, at this point, the States do not have the ability to require additional reductions for a period that has already passed. The passing of the deadline would not relieve Maryland, Virginia or the District from the requirement to achieve the 9% reduction in emissions, but the 9% reduction needs to be achieved as expeditiously as practicable after November 15, 1999. Measures such as enhanced inspection and maintenance and National Low Emission Vehicle that accrue additional benefits over time as newer vehicles replace older vehicles or as additional vehicles are required to obtain repairs will generate additional reductions more expeditiously than new measures which must undergo adoption processes that must include public notice and comment periods and any required legislative review processes prior to SIP approval.¹⁹

Comment 4: We received comments that said reductions from the National Low Emission Vehicle (NLEV) program are not creditable because the District did not submit a SIP revision for the NLEV program and because the NLEV SIPs for Maryland and Virginia were not approved until after the November 15, 1999 milestone date. The comments also assert that emission reductions are

¹⁹ Or in the case of the Metropolitan Washington, DC area, the three-state opt-in into the reformulated gasoline program would also quickly produce emission reduction benefits from the commencement of the second phase of the program in January 1, 2000 without further rule adoption.

credible toward the ROP requirement only to the extent that they have actually occurred by the November 15, 1999 milestone date. The comments state that if the ROP plan does not get sufficient credible reductions then the plan cannot be approved.

Response 4: As provided above, EPA does not believe that it cannot approve ROP credit for the NLEV program simply because the NLEV program was not approved prior to November 1999. In addition, EPA disagrees with the comment that the NLEV program does not get sufficient credible reductions.

The NLEV program is a federally-enforceable program. Unlike other federally enforced motor vehicle control programs, however, the NLEV program required an agreement from nine northeastern states and 23 manufacturers prior to its becoming enforceable. On March 9, 1998, EPA made a finding that the NLEV program was in effect. Nine northeastern states and 23 manufacturers had opted into this "voluntary"²⁰ clean car program and the opt-ins met the criteria set forth by EPA in its NLEV regulations (63 FR 926, January 7, 1998). As a result, starting in the northeastern states in model year 1999 and nationally in model year 2001, new cars and smaller light-duty trucks had to meet tailpipe standards that are more stringent than EPA could mandate prior to model year 2004. The phase-in of the NLEV vehicles began in the District, Maryland and Virginia (and the other northeastern states covered under the rule) commencing with the introduction of the model year 1999 vehicles during the fall of 1998.

The NLEV program required certain northeast states and the District to adopt certain regulations into their SIP. The scope of these regulations can be found in the NLEV final rule and associated docket. See 63 FR 926, January 7, 1998. EPA would concede that if the Maryland, Virginia or the District did not have a SIP-approved NLEV rule at this time then crediting of the reductions from the measure would require a definitive determination whether the NLEV reductions resulted from a rule promulgated by EPA or from a rule adopted into the SIP. However, the NLEV rule has been approved into the SIPs for the District, Maryland and Virginia thus negating any need for such a determination. The reductions from

this program that are relied on in the Metropolitan Washington, DC post-1996 ROP plan occurred prior to November 15, 1999, in accordance with the approved SIPs and, therefore, are credible.

Comment 5: We received comments that EPA should not credit reductions from the District's NO_x RACT rule because (1) EPA has not yet approved the District's NO_x RACT rule and, therefore, it will not become federally enforceable until long after 11/15/99, and (2) the District has not shown actual implementation of NO_x RACT before 11/15/99 by major NO_x sources within the District.

Response 5: As provided above, EPA believes that there is no point in disapproving the Metropolitan Washington DC area Post-1996 ROP SIPs at this time on the basis that the District's NO_x RACT regulation was approved after November 15, 1999. Moreover, as provided above, it is sufficient that the District's NO_x RACT rule requires sources to comply prior to the November 15, 1999 date by which ROP must be achieved. The District does not need to demonstrate that sources have actually complied with its regulations. Affected sources were required to comply with the applicable emissions standards and requirements contained in the District's NO_x RACT regulation (20 DCMR Section 805) by May 31, 1995. On December 14, 2000, the Regional Administrator signed a final action approving the District's NO_x RACT rule. That action has been or will be published shortly.

Comment 6: The comments assert the NO_x RACT rules include inadequate emission control requirements for various source categories. With respect to Maryland and Virginia NO_x RACT rules, the commenter referenced comments submitted in response to EPA's proposed rulemaking actions on those SIPs. With respect to the District's NO_x RACT rule, the commenter says the District proposed to amend its rule to eliminate deficiencies precluding EPA approval.

Response 6: With respect to Maryland and Virginia NO_x RACT rules, EPA has provided responses to comments in the final rulemaking action on those SIPs. With respect to the District's NO_x RACT rule, the District did make several amendments to address several provisions regarding monitoring, operating practice standards for smaller emission units, and applicability provisions that would only increase the number of sources and hence reductions available after 1999.

Comment 7: We received comments that assert that EPA cannot credit

reductions because the District has not implemented its NO_x RACT rules. Specifically, the comments cite that the District's proposed title V permit for the Blue Plains Wastewater Treatment Plant contains no NO_x RACT requirements (either as federal or state-only requirements), even though the District has identified the Plant as a major NO_x source.

Response 7: As an initial matter, EPA notes that the District has not taken credit in its ROP plan for NO_x RACT reductions attributable to the Blue Plains Wastewater Treatment Plant and, as provided below, believes that this source is not subject to the NO_x RACT requirement. (EPA notes that no comments regarding the Blue Plains Plant were received during the comment period on EPA's proposed full approval of the District's NO_x RACT rule.) Sources subject to the District's NO_x RACT rule were required to comply with the applicable emissions standards and requirements contained in the District's NO_x RACT regulation (20 DCMR Section 805) by May 31, 1995. Over the past several years, the District has been incorporating source-specific NO_x RACT requirements in Title V permits for many sources.

EPA has reviewed a draft operating permit for the Blue Plains Plant. The Blue Plains Plant has twenty-nine combustion sources. This includes five digester gas/number two fuel oil-fired boilers between ten and thirteen and one-half million BTU per hour heat input, nine natural gas/number 2 fuel oil-fired boilers between five and ten million BTU per hour heat input, seven distillate/natural gas fired boilers less than five million BTU per hour heat input, two oil-fired generators and six flares. The requirements in the permit limit the hours of operation of the emergency generators to less than 500 hours per year consistent with section 805.1(c) of the District's NO_x RACT rule, thus excluding the generators from coverage by the NO_x RACT rule.

The District's NO_x RACT rule sets differing level of control on boilers through emission limitations or good operating practices, depending upon the rated capacity and fuel type of the boiler. A source generally consists of several units which emit pollutants to the atmosphere. The sum of emissions from all units at a facility determines if a unit is major and, thus, subject to the RACT requirements. However, certain units at a facility may be so small that it is clear that no controls are reasonably available for those units, although RACT might apply at the other units within the facility. Regulatory agencies have typically included exemptions for very

²⁰The NLEV program was "voluntary" in that it could only come into effect if agreed upon by the northeastern states and the auto manufacturers. As of March 2, 1998, the NLEV standards were enforceable in the same manner as any other federal new motor vehicle program (63 FR at 11375, March 9, 1998).

small emission units in their VOC RACT rules. The reason for the exemptions is that control requirements at very small units are generally not reasonable, considering technological and economic feasibility. As a result of the new NO_x RACT requirements in the Clean Air Act Amendments of 1990, regulatory agencies are required to develop and adopt NO_x RACT rules. In the process of drafting these rules, many agencies have included exemptions for very small NO_x emission sources for the same reason noted above for VOC rules. Unlike the VOC rules, however, there is no well-established precedent with respect to NO_x.

The District's NO_x RACT was approved without emission limits for de minimis sources. In the case of the boilers at the Blue Plains Plant, EPA concludes these 29 units would be de minimis because the units are distillate-oil or digester/natural-gas fired and thus the emission reduction potential is small, control is not cost effective, and the actual emissions reported in the draft operating permit from the plant are small and thus the potential emission reductions are negligible. Most of the combustion units, such as the sixteen boiler units below ten-million BTU per hour, are below the threshold at which controls are cost effective, and those at or just over ten-million BTU per hour are on the threshold of cost effectiveness. See the memorandum entitled "De Minimis Values for NO_x RACT" G. T. Helms, Group Leader, Ozone Policy and Strategies Group (MD-15), to the Air Branch Chiefs, Regions I-X, dated January 1, 1995.

Comment 8: We received comments that assert that EPA should not credit reductions from Maryland's or Virginia's NO_x RACT rules for the following reasons: (1) EPA has not yet even approved these NO_x RACT rules; (2) even if the rules are approved prior to final action on the ROP plan, the approvals will not become federally enforceable until long after 11/15/99; and (3) Maryland and Virginia have not shown actual implementation of all RACT requirements before 11/15/99.

Response 8: As provided above, EPA believes that there is no point in disapproving the Metropolitan Washington DC Post-1996 ROP SIPs at this time on the basis that Virginia's and Maryland's NO_x RACT regulations were approved after November 15, 1999. Moreover, as provided above, it is sufficient that the States' NO_x RACT rules require sources to comply prior to the November 15, 1999 date by which ROP must be achieved. The States do not need to demonstrate that sources

have actually complied with its regulations.

The Commonwealth's EPA-approved RACT regulations, found at 9 VAC 5-40-300 and 310, require all sources for which the CAA requires RACT to be in compliance by the May 31, 1995 deadline specified in the CAA.²¹ Virginia has not extended the Act's compliance date for those major sources mandated to comply by May 31, 1995, and by approving the Commonwealth's case-by-case SIP revisions, EPA is not approving an extension of this deadline. To the extent that Virginia's consent agreements and permits require additional reductions beyond the mandated compliance deadline for meeting RACT, these requirements are not considered to be part of the RACT determinations.

EPA disagrees with the commenter that there are no compliance dates established for the RACT requirements. As explained previously, on July 11, 1995, the MDE submitted a revision to its SIP for the control of NO_x emissions from major sources. This submittal included revisions to regulation COMAR 26.11.09.01 and 26.11.09.08 which pertained to definitions and a generic NO_x RACT rule which required affected sources to either meet a presumptive NO_x emissions standard or to submit a case-by-case RACT proposal for approval by MDE. In all cases, under this regulation, RACT requirements were to have been met by no later than May 31, 1995. On June 22, 1999 (64 FR 33197), EPA granted conditional limited approval of this SIP revision. The condition imposed required that all case-by-case RACT determination be submitted as SIP revisions. On September 8, 2000, Maryland submitted a SIP revision. It consisted of a revised version of COMAR 26.11.09.08 which removed the generic RACT provisions and replaced them with source category specific RACT emission limitations. Maryland chose to do this to avoid the undue burden of submitting all the case-by-case RACT determinations as source-specific SIP revisions. The submittal of the September 8, 2000, SIP revision satisfies the conditions of EPA's June 22, 1999 conditional limited approval. Maryland first revised COMAR

²¹ Consistent with the Act, the Commonwealth's RACT regulations require facilities in the Northern Virginia Emissions Control Area which have a theoretical potential to emit of 50 tons per year (TPY) or greater of NO_x or VOCs to comply by May 31, 1995. To obtain additional emission reductions beyond those mandated by the Act, the Commonwealth also required VOC sources with a theoretical potential to emit 25 TPY or greater, but less than 50 TPY, to apply RACT. The Commonwealth set a compliance deadline for these sources of May 31, 1996.

26.11.09.08 on September 22, 1999 and further revised it on August 30, 2000. These revisions to COMAR 26.11.09.08 became effective in the State of Maryland on October 18, 1999, and September 18, 2000, respectively. Its provisions are to be complied with at all times and it provides no extension of the CAA mandated RACT compliance date of May 31, 1995.

EPA has fully approved Maryland's and Virginia's NO_x RACT rules. On December 15, 2000, the regional Administrator signed final actions approving the Maryland and Virginia NO_x RACT rules. These actions have been or will be published shortly.

Comment 9: We received comments that asserted that EPA can only credit those reductions that the District actually achieved as a result of enhanced vehicle inspection between April 1999 and November 15 1999. The comments state that only a fraction of the fleet was tested between the April 1999 commencement of the enhanced I/M program and November 15, 1999.

Other comments likewise questioned whether full emission reductions credited from the Maryland and Virginia I/M programs actually occurred by 11/15/99. The latter comments assert that states must demonstrate full implementation including enhanced testing of the entire fleet. These comments also questioned whether the full emission reductions were credited to the enhanced I/M programs in Maryland and Virginia given that final SIP approval did not occur until late 1999.

All comments state if the ROP plan does not get sufficient creditable reductions by November 15, 1999, then the plan cannot be approved.

Response 9: EPA disagrees that the full fleet must be tested for a state to get the credit that they claim. I/M program benefits were determined using EPA's MOBILE5b emission factor model. The MOBILE5b emission factor model was designed to evaluate program benefits from annual and biennial programs and is quite capable of evaluating program benefits for a specified year that is year-one of a biennial program. The MOBILE5b model has inherent limitations in that it can only assume an I/M start date of January 1 and can only provide output for July 1 or January 1 for the year of evaluation. The States modeled an enhanced I/M start date of January 1 of the following years: 1998 for Maryland and Virginia and 1999 for the District. The Maryland enhanced program commenced in October 1997, the Virginia program commenced during May of 1998 and the District on April 26, 1999. All the programs have

now tested the amount of the fleet specified in the post-1996 ROP plan. EPA believes the estimated reductions from I/M needed for the post-96 ROP plans were achieved and surpassed by the end of May 2000, prior to the beginning of the ozone season. EPA believes that these reductions were achieved as expeditiously as practicable and that no other reasonable emissions control strategy would have allowed the District or Virginia or EPA to achieve these reductions sooner.

EPA believes that there is no point to disapprove Maryland's, Virginia's or the District's Post-1996 plan SIP at this time because of the date Maryland's, Virginia's or the District's I/M SIP regulation was approved. First the reductions claimed by Maryland, Virginia and the District have now occurred. Second, Maryland, Virginia or the District would have to remedy the deficiencies that lead to the disapproval. The comments suggest that the deficiency could arise from one of two deficiencies: first, the reductions did not occur by the required deadline or, two, the reductions did not arise from either a measure approved into the District's SIP or from a measure promulgated by EPA. In either case, a shortfall of creditable reductions would occur. Now that the milestone deadline has passed, Maryland's, Virginia's or the District's has limited ability to effectuate a remedy to a shortfall of creditable reductions that must occur by a date past. The passing of the deadline does not relieve Maryland, Virginia or the District from the requirement to achieve the 9% reduction in emissions, but the 9% reduction needs to be achieved as expeditiously as practicable after November 15, 1999. Maryland, Virginia or the District can only get creditable reductions from reductions that actually occurred by the milestone deadline by making such reductions, if any exist, creditable by incorporating such reductions into a SIP regulation that EPA approves. In such a situation, the SIP approval would occur after the deadline. If sufficient actual reductions occurring by the milestone date did not exist then Maryland, Virginia or the District could only get reductions after the milestone deadline. The Post-1996 ROP requirement would only be fulfilled if such additional reductions occurred as expeditiously as practicable. Measures such as I/M and NLEV that accrue additional benefits over time as newer vehicles replace older vehicles or as additional vehicles are required to obtain repairs will generate additional reductions more expeditiously than new measures which must undergo adoption

processes that must include public notice and comment periods and any required legislative review processes prior to SIP approval.

Comment 10: We received comments that assert because the final national rules for autobody refinishing, surface coatings and consumer products allow for exemptions or variances, EPA cannot grant any emission reduction credit at all because the Clean Air Act does not allow EPA to credit state or national measures with emission reductions when emission limits are subject to waiver at any time. The comments further assert that because the tonnage exceptions and exceedance fee provisions or variance provisions in the rules are not limited to a specific tonnage figure at all the rules place no cap on the use of these provisions and thus assert in the absence of such caps, EPA cannot rationally or lawfully grant emission reduction credit for these rules.

Response 10: The AIM rule (40 CFR 594.404) sets caps on the amount of the tonnage exemptions. The Economic Impact Analysis for the final rule evaluated the magnitude of lost emission reductions in considering the fee provision and found that the fee would result in a relatively minor adjustment in emission reductions, while providing considerable flexibility in the marketplace, thus reducing the number of products that withdraw from the market. The effect of the tonnage exemption and the exceedance fee on the estimated emission reduction was considered in derivation of the estimated emission reduction. The estimated reduction for the final rule was reduced by 2,350 tons to account for the exceedance and tonnage exemptions in the rule.

Not all variance requests were related to time extensions to reformulate products but also included time extensions to update product literature or labeling or date coding equipment. See 64 FR 16447, April 5, 1999. Most variances were submitted immediately after the rules became effective and the time extension requested have now run out. Region III has not received a variance request in over a year.

Comment 11: We received comments that assert that the proposed rulemakings used estimates from the proposed rulemaking for autobody refinishing, consumer products, and architectural and industrial maintenance coatings as a basis for approving the States' reduction claims.

Response 11: As stated in the TSDs for the proposed approvals of Maryland's, Virginia's and the District's post-1996 ROP plan, the 36% reduction

for autobody refinishing coatings is based upon the final rule, and as stated in the preambles and associated dockets for the consumer products and architectural and industrial maintenance coatings final rules, these final rules are estimated to achieve a 20% reduction in affected source categories.

EPA's March 22, 1995 memorandum²² allowed states to claim a 20% reduction in VOC emissions from the AIM coatings category in ROP and attainment plans based on the anticipated promulgation of a national AIM coatings rule. In developing the attainment and ROP SIPs for their nonattainment areas, States relied on this memorandum to estimate emission reductions from the anticipated national AIM rule. EPA promulgated the final AIM rule in September 1998, codified at 40 CFR part 59 subpart D. In the preamble to EPA's final AIM coatings regulation, EPA estimated that the regulation will result in 20% reduction of nationwide VOC emissions from AIM coatings categories (63 FR 48855). The estimated VOC reductions from the final AIM rule resulted in the same level as those estimated in the March 1995 EPA policy memorandum. In accordance with EPA's final regulation, States have assumed a 20% reduction from AIM coatings source categories in its attainment and ROP plans.

Consistent with a November 27, 1994 EPA policy,²³ many States have claimed a 37% reduction from the autobody refinishing source category based on a proposed rule. However, EPA's final rule, "National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings," published on September 11, 1998 (63 FR 48806), did not regulate lacquer topcoats and will result in a smaller emission reduction of around 33% overall nationwide. The 37% emission reduction from EPA's proposed rule was an estimate of the total nationwide emission reduction. Since this number is an overall national average, the actual reduction achieved in any particular area could vary depending on the level of control which already existed in the area. For example, in California the reduction from the national rule is zero because California's rules are more

²² "Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rules," March 22, 1995, from John S. Seitz, Director, Office of Air Quality Planning and Standards to Air Division Directors, Regions I-X

²³ "Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rule and the Autobody Refinishing Rule," November 27, 1994, John S. Seitz, Director OAQPS, to Air Division Directors, Regions I-X.

stringent than the national rule. In the proposed rule, the estimated percentage reduction for areas that were unregulated before the national rule was about 40%. However as a result of the lacquer topcoat exemption added between proposal and final rule, the reduction is now estimated to be 36% for previously unregulated areas. Both the District and Virginia claimed 35.7% credit in their attainment and ROP plans while Maryland claimed 45%. EPA's best estimate of the reduction potential of the final rule was spelled out in a September 19, 1996 memorandum entitled "Emissions Calculations for the Automobile Refinish Coatings Final Rule" from Mark Morris to Docket No. A-95-18.

The basis for approving Maryland's reductions is dealt with in a response to a separate comment consistent with a June 22, 1995 EPA guidance,²⁴ States have claimed a 20% reduction from the consumer products source category based on EPA's proposed rule. The final rule, "National Volatile Organic Compound Emission Standards for Consumer Products," (63 FR 48819), published on September 11, 1998, has resulted in a 20% reduction after the December 10, 1998 compliance date. Therefore the reductions obtained by States for their attainment and ROP plans from the final national rule are consistent with credit which was claimed.

Comment 12: We received comments that state for the architectural and industrial maintenance (AIM) coatings rule, the limits on a number of coatings were changed between the proposal and final rule either directly, or by establishing new subcategories with higher VOC limits. The comments assert that the effects of these changes and other changes is not documented precisely how those changes justify the claimed emission reduction credit. The comments further state that EPA does not show how the effects of these were reflected in the final percentage reduction estimate EPA is allowing states to claim from the rule.

Response 12: The basis for the 20% reductions achieved by the final rule is documented in the rulemaking docket for the AIM coatings final rule in docket A-92-18, item number IV-B-2 as stated in appendix C to the TSDs for the rulemakings on Maryland's, Virginia's and the District's P attainment and Post-1996 ROP plans. The emission reduction and the baseline emissions

estimate for the final rule reflect changes due to new information as well as the decisions on some categories. These changes included:

(a) Addition of information on concrete curing and sealing compounds.

(b) Removal of acetone emissions from the inventory for industrial maintenance coatings and for traffic coatings and zone marking coatings.

(c) Adjustments to account for creation of new categories where EPA had the necessary information on coating volume and VOC content and we could determine if the category was included in the NPCA survey.

After all of the revisions were made, the revised estimate of baseline emissions was 6 percent higher than the estimate at proposal and the revised estimate of the emission reduction was 7 percent higher. Thus, it is not possible to assess the validity of the emission reduction estimate by a simple comparison of the VOC content limits for a few products.

EPA believes the 20% reduction identified in the final AIM rule was reasonable and EPA took final action on the attainment and Post-1996 ROP plans on that basis.

Comment 13: We received comments that assert the estimate of emission reductions from the autobody refinishing rule does not account for establishment of a separate category for multi-colored topcoats in the final rule—a category that has weaker limits than would have applied to the same topcoats under the proposed rule, and the comments assert EPA that has no data on the usage of multi-colored topcoats—data that is required in order to rationally estimate the expected emission reductions from the rule.

Response 13: EPA's best estimate of the reduction potential of the final rule was spelled out in a September 19, 1996 memorandum entitled "Emissions Calculations for the Automobile Refinish Coatings Final Rule" from Mark Morris to Docket No. A-95-18.

The basis for approving Maryland's reductions is dealt with in a response to a separate comment below.

Comment 14: We received comments that assert there is insufficient basis for granting full credit for AIM rule as of November 15, 1999 because EPA has failed to offer any facts or analyses showing that only compliant products were in use as of 11/15/99, and the late implementation deadline of September 12, 1999 virtually assures that this was not the case.

Response 14: As discussed in response to other comments, the estimated VOC reductions from the final AIM rule resulted in the same level as

those estimated in the March 1995 EPA policy memorandum. In accordance with EPA's final regulation, States have assumed a 20% reduction from AIM coatings source categories in its attainment and ROP plans. AIM coatings manufacturers were required to be in compliance with the final regulation within one year of promulgation, except for certain pesticide formulations which were given an additional year to comply. Thus all manufacturers were required to comply, at the latest, by September 2000.

EPA believes that there is no point to disapprove the Post-1996 plan SIPs at this time because the States have limited ability to effectuate a remedy to a shortfall of creditable reductions that must occur by a date past. The passing of the deadline does not relieve the States from the requirement to achieve the 9% reduction in emissions, but the 9% reduction needs to be achieved as expeditiously as practicable after November 15, 1999. The States can only get creditable reductions from permanent reductions that actually occurred by the milestone deadline by making such reductions, if any exist, creditable by incorporating such reductions into a SIP regulation that EPA approves. In such a situation, the SIP approval would occur after the deadline. If sufficient actual reductions occurring by the milestone date did not exist then the States could only get reductions after the milestone deadline. The Post-1996 ROP requirement would only be fulfilled if such additional reductions occurred as expeditiously as practicable. Measures such as AIM rule which are already promulgated would generate reductions more expeditiously than new measures which must undergo adoption processes that must include public notice and comment periods and any required legislative review processes prior to SIP approval.

In promulgating the final AIM rule in 1998, EPA considered the impact of the new rule on the affected industry and inventory. Industry confirmed in comments on the proposed AIM rule that 12 months between the issuance of the final rule and the compliance deadline would be sufficient to "use up existing label stock" and "adjust inventories" to conform to the rule (63 FR at 48867, September 11, 2000).

EPA believes the estimated reductions from AIM needed for the Post-96 ROP plans were achieved already. EPA believes that these reductions were achieved as expeditiously as practicable and that no other reasonable emissions control strategy would have allowed the

²⁴ "Regulatory Schedule for Consumer and Commercial Products under Section 183(e) of the Clean Air Act", June 22, 1995, John S. Seitz, Director OAQPS, to Air Division Directors, Regions I-X.

States or EPA to achieve these reductions sooner.

Comment 15: We received comments claiming that one EPA analysis indicates some reductions from the AIM rule could be deferred to as late as 2002. The comments cite a Memorandum dated May 30, 2000 from Paul T. Wentworth, EPA, to Administrative Record on the Adequacy findings for the Motor Vehicle Emissions Budgets in the Revised Phase II Ozone Attainment Plans for the Metropolitan Washington, DC Ozone Nonattainment Area.

Response 15: The budgets at issue in the Memorandum dated May 30, 2000 from Paul T. Wentworth, EPA, to Administrative Record on the Adequacy findings for the Motor Vehicle Emissions Budgets in the Revised Phase II Ozone Attainment Plans for the Metropolitan Washington, DC Ozone Nonattainment Area were the 2005 budgets. The statement made in this document stated that the reductions from the AIM rule “* * * will occur by 2002 * * *”. The statement does not state EPA’s position that the reductions would not occur any sooner. For the reasons outlined in the TSDs for the proposed rulemaking actions, EPA believes the AIM reductions occurred by November 15, 1999.

Comment 16: We have received comments saying that the (Transportation) model does not incorporate adequate assumptions about the effects of land development and new road projections on the growth of vehicle travel and cites an EPA letter from Judith Katz, Director, Air Protection Division, EPA Region III to James Cheatham, Divisional Administrator, Federal Highway Administration dated August 27, 1998, in which the commenters assert that EPA stated that the plans did not include any information on the rate of land development in the Washington Region and the effect of this development will have on the transportation system. The comments discuss the transportation model’s land use assumptions, and imply that the Metropolitan Planning Organization (the Metropolitan Washington Council of Governments, MWCOC) (hereafter, “the MPO”) has not included the effects of land use in the model and that EPA has known about this issue since 1998.

Response 16: This August 27, 1998, EPA letter to the MPO concerned EPA’s review of the conformity determination FY99–04 Transportation Improvement program (TIP) as well as the Long Range Transportation Plan. Planning assumptions in a TIP must be derived from the estimates of current and future population, employment, travel, and

congestion most recently developed by the MPO or other agency authorized to make such estimates and approved by the MPO. Likewise, the conformity rule, 40 CFR 93.118(e)(4)(ii), requires SIP motor vehicle emissions budgets to be developed in consultation with federal, state and local agencies such as the MPO in order to be adequate and approvable. Based on EPA reviews of the most recently approved Transportation Improvement programs (TIPs) as well as the Long Range Transportation Plans in the Washington, DC area, EPA is satisfied that the MPO through its land activity forecasts, provides timely information on growth and land use, through consultation with all of its regional county planners. These same forecasts are used for both the development of SIP motor vehicle emissions budget and the determination of conformity TIP. Therefore, while the estimates of land use activity are not done by modeling, their process of estimating land use activity does not violate the requirements of the conformity rule which was the context in which the cited 1998 letter was sent, and therefore EPA can find no reason to agree with any assertion or implication that the transportation model, used by the MPO to develop any SIP budgets in 1999 or 2000, is deficient. Furthermore, this August 27, 1998, EPA letter to the MPO does not have any relevance in this instance because the letter targets the lack of any clear graphic display of information in the transportation plans rather than the absence of information for the transportation model to use.

Comment 17: We received comments that assert that EPA cannot credit the Post-1996 plan submitted by Virginia and Maryland with reductions from measures credited in the 15% plan and cannot count emission reductions to both the 15% and 9% reduction requirements, that is reductions from some measures are being counted towards both the 5% and 9% reduction requirements.

Response 17: EPA disagrees with this comment. Under EPA’s interpretation of the reasonable further progress (also called rate-of-progress (ROP)) requirements under section 182 of the CAA, the 15% reduction requirement and post-1996 reduction requirement (e.g., 9% by 1999) are not separate tabulations but rather the post-1996 requirement is in addition to the 15% requirement.

EPA has always interpreted the ROP requirement to be a requirement to lower an area’s emissions below a target level of emissions. See 57 FR at 13506, April 16, 1992. The 9% per post-1996 requirement (over the three year period

1996 to 1999) is in addition to 15% by 1996 requirement. See 57 FR at 13516. EPA continued this approach in guidance documents issued subsequent to April 16, 1992.

The target level for any milestone year is always calculated relative to the 1990 base year emissions in the area and results in a lower target level for each milestone year. The 15% target level of VOC emissions is the 1990 base year inventory adjusted to account for the effects on base year emissions of certain noncreditable programs under Clean Air Act section 182(b): (1) Certain mandated RACT and I/M rule corrections, if any; (2) certain mandated reductions in gasoline Reid vapor pressure (the so called “Phase II RVP” program) to occur in 1992; and (3) the federal motor vehicle control program in place as of 1990 (the so-called “Tier 0 FMVCP”). This adjusted VOC emissions inventory is reduced by 15% to arrive at the 15% plan target level.

Calculation of the VOC target level for the 1999 milestone year starts with the 15% plan target level and applies further decremental reductions. Part of the decrement is due to effects on base year emissions due to the Tier 0 FMVCP between 1996 and 1999 (which is not creditable towards the 9% per year post-1996 ROP requirement under the Act) and part due to application of the post-1996 9% requirement. Substituting NO_x reductions for VOC reductions only lessens the additional 9% VOC reduction requirement by 1999 to some lesser percentage, which is 1% in the case of the plan subject to this rulemaking action.

Under section 182(b) of the CAA, the ROP requirements are to be met accounting for growth in the area.

An emission reduction is the difference between two emission projections that differ only in the presence of the effects of a control strategy in one case and the absence in the other (often referred to the “uncontrolled” projected emissions). For the 15% ROP plan, the projection year is 1996 whereas for the Post-1996 ROP plan the year is 1999.

A demonstration of ROP for the 15% plan requires that the plan have enough reductions to reduce the 1996 projected uncontrolled emissions to less or equal to the 1996 target level. The Post-1996 ROP plan has to have enough VOC reductions to account for growth in VOC emissions between 1996 and 1999 and to make the VOC portion (when NO_x is substituted) of the 1996 to 1999 3% per year reduction requirement.

The Post-1996 plan for the Washington area projects all emissions in all categories to 1999 without new

controls from the 1990 base year level and then applies controls to determine 1999 reductions. (Any growth projections in uncontrolled emissions for 1996 to 1999 or any changes in reductions for 1996 to 1999 in the plan were the difference between the 1990 to 1999 projections and the 1990 to 1996 projections (from the 15% plan)). The Post-1996 ROP plans evaluate the effects of the various creditable control strategies in the plan on these uncontrolled emissions levels to determine the reductions in 1999 from the Post-1996 ROP plan. EPA is approving the Post-1996 ROP plans on the basis that there were sufficient projected reductions to reduce the 1999 projected uncontrolled emissions to less than or equal to the target level.

Some measures used for the 15% ROP demonstration may produce more reductions relative to projected 1999 uncontrolled emissions for the post-1996 plan than for the reductions relative to projected 1996 uncontrolled emissions the 15% plan because the source categories affected by the measures have higher uncontrolled emissions in the post-1996 period due to growth in emissions related activity. (Other measures produce the same reductions because the underlying emissions related activity are projected to remain steady.) Some measures namely the additional rules under the FMVCP promulgated since 1990 (*i.e.*, "Tier 1") produce greater reductions for a post-1996 plan than for the 15% plan for an additional reason than just growth in underlying emissions related activity: the post-1996 fleet contains a higher percentage of vehicles meeting the newer standards than the fleet assumed in the 15% plan.

Suppose a measure (implemented after 1990 but before 11/15/96) can reduce emissions in a sector (or at a source) by 20%. Suppose the 1990 base line emissions for that sector (or source) were 10.0 tons per day. Suppose the emissions in the category were projected to grow 1% per year or 6.2% between 1990 and 1996 and 9.4% between 1990 and 1999. The uncontrolled emissions would be 10.62 (10×1.062) tons per day for 1996 and 10.94 (10×1.094) tons per day for 1999. The 1996 reductions would be 2.12 tons per day (0.20×10.62), and the 1999 reductions would be 2.19 (0.20×10.94) tons per day.

A demonstration of ROP for the post-1996 plan requires that the plan have enough VOC reductions to reduce the 1999 projected uncontrolled emissions to less than or equal to the relevant post-1996 VOC target level.

In the Post-1996 ROP plan the measures used in the 15% plan are

evaluated as to how well these measures reduce projected uncontrolled 1999 emissions. These 1999 reductions were added up with the 1999 reductions from additional measures implemented after 11/15/96 to get the total emission reductions in 1999 (relative to the 1999 uncontrolled levels).

Thus although some measures may be included in both the 15% and 9% plans, only the reductions between 1990 and 1996 from those measures are counted towards the 15% plan, while those from 1996 to 1999 are counted in the 9% plan.

The comments do not offer any substantive alternative interpretation regarding the demonstration of ROP to that which EPA has issued in guidance on the subject except to claim once a measure has been used towards the 15% requirement it cannot be used towards the 9% requirement. Nor do the commenters comment adversely on EPA's interpretation regarding demonstration of ROP through calculation of target levels and through a showing that milestone year projected emission inventories with all controls are less than the target levels. As explained above, the measures used to achieve the 15% reduction requirement by 1996 were evaluated for the effect on uncontrolled 1999 emissions (that were projected from 1990). In the case of the Metropolitan Washington, D.C. nonattainment area additional measures are needed in the post-1996 plan to achieve additional reductions needed to offset growth in emissions after 1996 and to achieve the VOC portion of the 9% reduction requirement.

Comment 18: We received comments that assert that EPA must document its reasons for accepting Maryland's and Virginia's emission reduction claims. The comments cite the example of the reductions from Maryland's and Virginia's open burning program and the 45% reduction claimed by Maryland for the Maryland rules applicable to autobody refinishing. The comments state that the States assume an 80% compliance with the open burning regulations without documenting the basis for this assertion. The comments claim that the 80% compliance assertion is void in the absence of plans or commitments needed for local enforcement.

Response 18: In the case of Maryland's autobody refinishing rule, Maryland's rule requires coating limits equivalent to those required under EPA's proposed autobody refinishing rule. Maryland's rule also establishes VOC content requirements for surface preparation cleaners, equipment cleaning, and for application

equipment. The effect from the coating limits, surface preparation cleaners, and equipment cleaning would be a reduction of 42.5% based upon the analysis in EPA's Alternative Control Techniques: Auto Body Refinishing (EPA 453/R-94-031, April 1994). Maryland's rule also requires the use of either low-volume, high-pressure or high-volume, low-pressure application equipment. STAPPA reports that the Bay Area Air Quality Management District conservatively estimates that use of HVLP equipment can reduce coatings usage by 20 to 40% (STAPPA/ALAPCO, "Meeting the 15% Rate of Progress—A Menu of Options", pages 91-99 (Sept. 1993)). A 20% reduction in coatings usage would result in a further 12% reduction in coating emissions which equate to a further 10% reduction in overall emissions. Based upon this EPA believes the 45% reduction credit assumed by Maryland is appropriate and may be conservative.

Regarding open burning, 80% compliance is reasonable as a default compliance rate. This default 80% compliance assertion is based upon EPA's guidance for rule effectiveness. This guidance was among that listed in appendix A to the TSD for the proposed action (such as item numbers 4, 5, 6, 24, 27, 30, 35, 36, and 38 among others). EPA's guidance allows States to assume 80% compliance rate as a default. EPA views the fact that States take the default 80% rule effectiveness as a defacto commitment to invest enforcement resources to ensure this level of compliance.

Comment 19: We received comments that claimed open burning emissions were not in the 1990 base year emissions inventory for Maryland and Virginia. The comments assert that EPA cannot credit reductions from emissions that were not included in the 1990 base year emissions inventory.

Response 19: The emissions from the open burning category were documented in the 1990 base year emissions inventory. These were documented in Chapter 3.0, section 3.4.4.5.2 on pages 3-65 and 3-66, and on page III-32 of Appendix 3.0 of the "1990 Base Year Emissions Inventory for Stationary Anthropogenic, Biogenic and Highway Vehicle Emissions of Ozone Precursors in the Washington, DC-MD-VA Metropolitan Statistical Nonattainment Area", dated September 22, 1993, that was submitted by Maryland and Virginia as part of their 1990 base year emissions inventory SIP.

Comment 20: We received comments asserting that the Maryland and Virginia attainment and Post-1996 ROP plans are flawed because they assume a fleet mix

that does not accurately reflect the growing proportion of sport utility vehicles and gasoline trucks. The comments cite data from the Maryland Department of the Environment for 1996 and 1999. The comments further assert that EPA and the states have not followed a consistent practice in updating SIP modeling to account for changes in vehicle fleets. The comments also assert that EPA cannot rationally approve SIPs that are based on such materially inaccurate assumptions. The comments also assert continued use of out-dated assumptions is inconsistent with the duty imposed by Clean Air Act section 182(a)(3) to triennially update the emission inventory. The comments also assert that if the motor vehicle inventory has not been updated to prepare the current SIP submission, it should be disapproved.

Response 20: All of the SIPs on which we are taking final action are based on the most recent vehicle registration data available at the time the SIP was prepared. The SIPs use the same vehicle fleet characteristics that were used in the most recent periodic inventory update. The Metropolitan Washington D.C. Ozone Nonattainment Area SIP is based on vehicle registration data from 1996, which is the most recent data available at the time the SIP was prepared and submitted. Clearly the 1999 data could not have been used in motor vehicle emissions projections prepared in the fall of 1998 as documented in Appendix D of the SIP. EPA requires the most recent available data to be used, but we do not require it to be updated on a specific schedule. Therefore, different SIPs base their fleet mix on different years of data. Our guidance does not suggest that SIPs should be disapproved on this basis. Further, EPA does not require states to go back and reanalyze SIP submissions if new data becomes available shortly before EPA takes final action on the SIP. Nevertheless, we do expect that revisions to these SIPs that are submitted using MOBILE6 (as required in those cases where the SIP is relying on emissions reductions from the Tier 2 standards) will use updated vehicle registration data appropriate for use with MOBILE6, whether it is updated local data or the updated national default data that will be part of MOBILE6. EPA is requiring the Metropolitan Washington, D.C. area states to revise the attainment budgets using MOBILE6.

Comment 21: We received comments that assert that the Post-1996 ROP plan and the attainment plan fail to include a program to provide for the enforcement of the adopted control

measures as required by section 110(a)(2)(C) of the CAA. The comments assert that these plans must contain a legally enforceable SIP commitment to enforce the various control strategies relied upon for emission reduction credit. The comments assert that EPA review of state enforcement programs in connection with federal grantmaking does not satisfy EPA's duty to ensure that the SIP itself contains the legally required enforcement and funding commitments.

Response 21: EPA disagrees with the commenter's assertion that states must provide such information with each SIP revision. Although Clean Air Act sections 110(a)(2)(E) and 110(a)(2)(C) do contain these provisions cited by the commenter, section 110(a)(2)(H) is the statutory provision which governs requirements for individual plan revisions which States may be required to submit from time to time. There are no cross-references in section 7410(a)(2)(H) to either 7410(a)(2)(E) or 7410(a)(2)(C). Therefore, EPA concludes that Congress did not intend to require States to submit an analysis of adequate funding and enforcement with each subsequent and individual SIP revision submitted under the authority of section 110(a)(2)(H).

Once EPA approves a State's SIP as meeting section 110(a)(2), EPA is not required to reevaluate that SIP for each new revision to the plan to meet additional requirements in later sections of the Act. The Metropolitan Washington D.C. area States had previously received approval of their section 110(a)(2) SIPs.

In a final rulemaking action published on February 25, 1984 (49 FR 3063), EPA approved Virginia's financial and manpower resource commitments, after having proposed approval of these commitments on February 3, 1983 (48 FR 5124 at 5127).

In a final rulemaking action published on March 8, 1984 (49 FR 8610), EPA approved Maryland's financial and manpower resource commitments, after having proposed approval of these commitments on February 3, 1983 (48 FR 5048 at 5052).

In a final rulemaking action published on October 3, 1984 (49 FR 39059 at 39060), EPA approved the District's financial and manpower resource commitments, after having proposed approval of these commitments on December 17, 1983 (48 FR 54833 at 54836).

Neither this commenter or any other person has submitted substantive comments that would lead EPA to separately analyze whether it should call on the states to revise their section

110(a)(2) SIPs regarding enforcement and funding.

III. Final Action

A. The District of Columbia

1. Post-1996 ROP Plan

EPA is approving the District of Columbia's post-1996 (ROP) plan SIP revision for the Washington area which was submitted on November 3, 1997, and supplemented on May 25, 1999.

2. Attainment Demonstration

EPA is approving the District of Columbia's attainment demonstration SIP revision for the Washington area which was submitted on April 24, 1998, and supplemented on October 27, 1998, and on February 16, 2000, and section 9.1.1.2 of the March 22, 2000 SIP supplement dealing with a commitment to revise the 2005 attainment motor vehicle emissions budgets within one-year of the EPA's release of the MOBILE6 model.

3. Attainment Date Extension

EPA is approving the District of Columbia's request for an attainment date extension from November 15, 1999 to November 15, 2005, for the Washington area.

B. State of Maryland

1. Post-1996 Plan

EPA is approving the State of Maryland's post-1996 (ROP) plan SIP revision for the Washington area which was submitted on December 24, 1997, and supplemented on May 20, 1999, and the transportation control measures in Appendix H of the May 20, 1999 submittal.

2. Attainment Demonstration

EPA is approving the State of Maryland's attainment demonstration SIP revision for the Washington area which was submitted on April 29, 1998 and supplemented on August 17, 1998 and February 14, 2000, and only section 9.1.1.2 of the March 31, 2000 SIP supplement dealing with a commitment to revise the 2005 attainment motor vehicle emissions budgets within one-year of the EPA's release of the MOBILE6 model.

3. Attainment Date Extension

EPA is approving the State of Maryland's request for an attainment date extension from November 15, 1999 to November 15, 2005, for the Washington area.

C. Commonwealth of Virginia

1. Post -1996 Plan

EPA is approving the Commonwealth of Virginia's post-1996 (ROP) plan SIP revision for the Washington area which was submitted on December 19, 1997, and supplemented on May 25, 1999, and the transportation control measures in Appendix H of the May 25, 1999 submittal.

2. Attainment Demonstration

EPA is approving the Commonwealth of Virginia's attainment demonstration SIP revision for the Washington area which was submitted on April 29, 1998 and supplemented on August 18, 1998, and February 9, 2000, and only section 9.1.1.2 of the March 31, 2000 SIP supplement dealing with a commitment to revise the 2005 attainment motor vehicle emissions budgets within one-year of the EPA's release of the MOBILE6 model.

3. Attainment Date Extension

EPA is approving the Commonwealth of Virginia's request for an attainment date extension for the Washington area from November 15, 1999 to November 15, 2005.

IV. Administrative Requirements

A. General Requirements

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget. This action merely approves state law as meeting federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4). For the same reason, this rule also does not significantly or uniquely affect the communities of tribal governments, as specified by Executive Order 13084 (63 FR 27655, May 10, 1998). This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in

Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely approves a state rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

B. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

C. Petitions for Judicial Review

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by March 5, 2001. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action to approve the Post-1996 ROP plan, the ozone attainment demonstration and the attainment date extension SIP revisions submitted by the District, Maryland and Virginia may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: December 15, 2000.

Thomas C. Voltaggio,

Acting Regional Administrator, Region III.

40 CFR part 52 is amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart J—DC

2. Section 52.475 is added to read as follows:

§ 52.475 Extensions.

The Administrator hereby approves a request to extend the attainment date for the national ambient air quality standards for ozone to November 15, 2005 for the Metropolitan Washington, DC ozone nonattainment area.

3. Section 52.476 is amended by designating the existing text as paragraph (a) and by adding paragraphs (b) and (c) to read as follows:

§ 52.476 Control strategy and rate-of-progress plan: ozone.

* * * * *

(b) EPA is approving the District of Columbia's post-1996 (ROP) plan SIP revision for the Washington area which was submitted on November 3, 1997, and supplemented on May 25, 1999.

(c) EPA approves the revisions to the State Implementation Plan submitted by the District of Columbia Department of

Health on April 24, 1998, October 27, 1998, and February 16, 2000, and only section 9.1.1.2 of the March 22, 2000 SIP supplement dealing with a commitment to revise the 2005 attainment motor vehicle emissions budgets within one-year of the EPA's release of the MOBILE6 model. The revisions are for the purpose of satisfying the attainment demonstration requirements of section 182(c)(2)(A) of the Clean Air Act for the Metropolitan Washington, DC serious ozone nonattainment area. The revision establishes an attainment date of November 15, 2005 for the Metropolitan Washington, DC ozone nonattainment area. This revision establishes motor vehicle emissions budgets for 2005 of 101.4 tons per day of volatile organic compounds (VOC) and 166.7 tons per day of nitrogen oxides (NO_x) to be used in transportation conformity in the Metropolitan Washington, DC. Serious ozone nonattainment area until revised budgets based upon the MOBILE6 model are submitted and found adequate. In the revision, the District of Columbia commits to revise their VOC and NO_x transportation conformity budgets within one year of the release of the MOBILE6 model. The District of Columbia also commits to conduct a mid-course review to assess modeling and monitoring progress achieved towards the goal of attainment by 2007, and submit the results to EPA by December 31, 2003.

Subpart V—MD

4. Section 52.1078 is added to read as follows:

§ 52.1078 Extensions.

The Administrator hereby approves a request to extend the attainment date for the national ambient air quality standards for ozone to November 15, 2005 for the Metropolitan Washington, DC ozone nonattainment area.

5. Section 52.1076 is amended by adding paragraphs (d) and (g) to read as follows:

§ 52.1076 Control strategy and rate-of-progress plan: ozone.

* * * * *

(d) EPA is approving the State of Maryland's post-1996 (ROP) plan SIP revision for the Washington area which

was submitted on December 24, 1997, and supplemented on May 20, 1999, and the transportation control measures in Appendix H of the May 20, 1999 submittal.

* * * * *

(g) EPA approves the revisions to the State Implementation Plan submitted by the Maryland Department of the Environment on April 29, 1998, August 17, 1998, and February 14, 2000, and only section 9.1.1.2 of the March 31, 2000 SIP supplement dealing with a commitment to revise the 2005 attainment motor vehicle emissions budgets within one-year of the EPA's release of the MOBILE6 model. The revisions are for the purpose of satisfying the attainment demonstration requirements of section 182(c)(2)(A) of the Clean Air Act for the Metropolitan Washington, DC serious ozone nonattainment area. The revision establishes an attainment date of November 15, 2005 for the Metropolitan Washington, DC ozone nonattainment area. This revision establishes motor vehicle emissions budgets for 2005 of 101.4 tons per day of volatile organic compounds (VOC) and 166.7 tons per day of nitrogen oxides (NO_x) to be used in transportation conformity in the Metropolitan Washington, DC. Serious ozone nonattainment area until revised budgets based upon the MOBILE6 model are submitted and found adequate. In the revision, Maryland commits to revise their VOC and NO_x transportation conformity budgets within one year of the release of the MOBILE6 model. Maryland also commits to conduct a mid-course review to assess modeling and monitoring progress achieved towards the goal of attainment by 2007, and submit the results to EPA by December 31, 2003.

Subpart VV—VA

6. Section 52.2429 is added to read as follows:

§ 52.2429 Extensions.

The Administrator hereby approves a request to extend the attainment date for the national ambient air quality standards for ozone to November 15, 2005 for the Metropolitan Washington, DC ozone nonattainment area.

7. Section 52.2428 is amended by adding paragraphs (c) and (d) to read as follows:

§ 52.2428 Control strategy and rate-of-progress plans: ozone.

* * * * *

(c) EPA is approving the Commonwealth of Virginia's post-1996 (ROP) plan SIP revision for the Washington area which was submitted on December 19, 1997, and supplemented on May 25, 1999, and the transportation control measures in Appendix H of the May 25, 1999 submittal.

(d) EPA approves the revisions to the State Implementation Plan submitted by the Virginia Department of Environmental Quality on April 29, 1998, August 18, 1998, and February 9, 2000, and only section 9.1.1.2 of the March 31, 2000 SIP supplement dealing with a commitment to revise the 2005 attainment motor vehicle emissions budgets within one-year of the EPA's release of the MOBILE6 model. The revisions are for the purpose of satisfying the attainment demonstration requirements of section 182(c)(2)(A) of the Clean Air Act for the Metropolitan Washington, DC serious ozone nonattainment area. The revision establishes an attainment date of November 15, 2005 for the Metropolitan Washington, DC ozone nonattainment area. This revision establishes motor vehicle emissions budgets for 2005 of 101.4 tons per day of volatile organic compounds (VOC) and 166.7 tons per day of nitrogen oxides (NO_x) to be used in transportation conformity in the Metropolitan Washington, DC. Serious ozone nonattainment area until revised budgets based upon the MOBILE6 model are submitted and found adequate. In the revision, Virginia commits to revise their VOC and NO_x transportation conformity budgets within one year of the release of the MOBILE6 model. Virginia also commits to conduct a mid-course review to assess modeling and monitoring progress achieved towards the goal of attainment by 2007, and submit the results to EPA by December 31, 2003.

[FR Doc. 01-61 Filed 1-2-00; 8:45 am]

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